# TULUKSAK RIVER SYSTEM

HUC 30502, Zone 3, Kuskokwim River Region

## Final

## INTERIM SUMMARY REPORT

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Kuskokwim Assistance Agreement
Phase II-B Submission

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Department of Natural Resources

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# PREFACE

This study was funded by the U.S. Department of the Interior, Bureau of Land Management (BLM) through the Navigability Assistance Agreement (Cooperative Agreement # L09AC15466). The State of Alaska (State) and the BLM established an assistance agreement in 2004 to facilitate navigability research and reports that could be used for a variety of purposes, including the process for determining who holds title to the land under inland water bodies. Under the Statehood Compact, land under navigable waterways is reserved to the State. Navigability is based on historic use of water bodies for travel, trade and commerce up to the time of Statehood (1959), or recent use of the water bodies that demonstrates susceptibility to travel, trade and commerce in 1959.

The goal of the Navigability Assistance Agreement began was to investigate the history of use of water bodies in the Kuskokwim River region. Under the project scope of work, the State identified potentially navigable water bodies where the United States is an upland landowner or may otherwise have an interest in the submerged lands. Research included examining records and documents from the BLM records and others resources. This information was used to compose a narrative history for each water body that summarized the land status, land conveyance decisions, past navigability determinations, physical character of the water body, and a history of use.

These reports were prepared in stages. The first stage (Phase I-A) described the land status. The second stage was an interim summary report (Phase II-B) that was generally limited to information in the files of the U.S. Department of Interior and a regional history of the Kuskokwim River region written by BLM Navigable Waters Specialist C. Michael Brown in 1985. The final summary report (Phase IV) incorporated expanded research including the files of state and other federal agencies, the holdings of various libraries and archives in Alaska, and interviews with people who have knowledge of use of the water body.

The present report represents work at the Phase II-B level. The research and this report were completed under the guidance of an Assistance Agreement Partnership Management Team (PMT) composed of representatives of BLM and the State. The PMT set priorities, reviewed the reports, and decided when the research and report were complete. As directed by the PMT, these reports did not include navigability determinations or address the question of whether a water body is susceptibility to navigability. Rather, the reports provide evidence of historic and contemporary use and highlight those areas (such as portions of the water body) where gaps in knowledge remain and additional research might be warranted.

Documents that are important to understanding agency decision making or the point of view of an interested party are indicated as Attachment 1, Attachment 2, etc., and appear after the corresponding endnotes. These documents are listed in the Table of Attachments and can be viewed in their entirety in a separate PDF file that supplements this report.

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# Attachments

Attachment 1. W.R.D. [Wayne R. Dawson], Navigability Field Report, Tuluksak River, November 2, 1975, BLM file, F-14949-EE.

Attachment 2. Richard A. Sinclair, Memorandum on Easements Identified on Native Selected Lands, Tuluksak Village, November 21, 1975, BLM files, F-14949-EE.

Attachment 3. Garold T. McWilliams, BLM Realty Specialist, McGrath Resource Area, Memorandum concerning Easement Meeting at Tuluksak Village, November 21, 1975, BLM Files, F-14949-EE.

Attachment 4. Patrick C. Beckley, BLM Realty Specialist, Memorandum on ETF [Easement Task Force] Navigable Waters concerning determinations on Tuluksak selection, December 17, 1975, BLM files, F-14949-A.

Attachment 5. Patrick C. Beckley, BLM Realty Specialist, Memorandum concerning Easement Recommendations in the Tuluksak F-14949 selection, January 2, 1976, BLM files, F-14949-EE.

Attachment 6. Curtis V. McVee, BLM State Director, Notice of Proposed Easement Recommendations for the Village of Tuluksak, August 24, 1976, BLM files, F-14949-EE.

Attachment 7. Stanley H. Bronzyk, BLM Realty Specialist, Memorandum on Basis for Recommendations on Easements Reserved in Conveyances for Tuluksak Village, July 27, 1978, BLM files, FF-14949-EE.

Attachment 8. Martin L. Karstetter, Memorandum on Trip Report of Meeting with Tulkisarmute, Inc. concerning lands near Tuluksak, January 5, 1980, BLM files, F-14949-EE.

Attachment 9. Curtis V. McVee, BLM State Director, Final Easement Memorandum for the Village of Tuluksak, June 9, 1981, BLM files, F-14949-A and F-14949-EE.

Attachment 10. Sandra C. Thomas, BLM Acting Chief, Branch of ANCSA Adjudication, Decision to Interim Convey for the Native Village of Tuluksak, March 3, 1982, BLM files, F-14949-A and AA-12890.

Attachment 11. Ann Johnson, BLM Chief, Branch of ANCSA Adjudication, Decision of March 3, 1982 to Issue Conveyance Corrected in Part, for the Native Village of Tuluksak, June 23, 1982, BLM files, F-14949-A2 and AA-12890.

Attachment 12. Robert D. Arnold, Assistant to the BLM State Director for Conveyance Management, Interim Conveyance (IC) No. 542 to Tulkisarmute, Inc. and IC No. 543 to Calista Corporation, August 27, 1982, BLM files, F-14949-A.

Attachment 13. John J. Rumps, BLM Deputy State Director for Conveyance Management, Memorandum concerning Navigable Waters in the Kuskokwim Region, May 22, 1985, BLM files, 2628 (NAV) (962).

Attachment 14. Ruth D. Stockie, BLM Section Chief, Branch of ANCSA Adjudication, Decision to Interim Convey lands to Tulkisarmute, Incorporated, for the Village of Tuluksak, July 31, 1985, BLM files, AA-40710, F-14949-A.

Attachment 15. Ann Johnson, BLM Chief, Branch of ANCSA Adjudication, IC No. 1123 to Tulkisarmute, Inc. and IC No. 1124 to Calista, Incorporated, September 30, 1985, BLM files, F-14949-A.

Attachment 16. Wayne E. Boden, BLM Deputy State Director for Conveyance Management, Memorandum concerning Navigable Waters in Group Survey No. 268 (Window 1836), May 8, 1989, BLM files, F-14949.

Attachment 17. Gusto C. Panos, BLM Deputy State Director for Cadastral Survey, Memorandum concerning Navigable Waters in proposed Calista Land Exchange in the Kuskokwim River Region, June 4, 1993, BLM files, F-14864, F-14866, F-14895, F-14929 and AA-8099.

Attachment 18. Letter from C. Michael Brown, BLM Navigable Waters Specialist, to Michael B. Rearden, Manager of the Yukon Delta National Wildlife Refuge (NWR), concerning the navigability findings by the BLM in the Yukon-Kuskokwim Delta NWR, December 13, 1995, BLM files, 2628 (930).

Attachment 29. Heather A. Coats, BLM Land Law Examiner, Branch of Gulf Rim Adjudication, Decision to Interim Convey to Calista Corporation, February 21, 1996, BLM files, AA-8099-01 and AA-8099-EE.

Attachment 20. Gust C. Panos, BLM Chief, Branch of Mapping Sciences, Memorandum on Navigability Review for Waters in Window 2700, November 7, 1997, BLM files, F-17100, F-17062, F-16917, F-16016, F-17018 and F-15903.

Attachment 21. Denny Benson, BLM Easement Coordinator, Notice of Proposed Easement Recommendations and Request for Easement Nominations on land Selected by Tulkisarmute Incorporated, September 26, 2005, BLM files, F-14949-EE.

Attachment 22. Denny Benson, BLM Easement Coordinator, memorandum on Final Easement Recommendations and Patent Easement Review for lands to be Patented to Tuliksarmute, Incorporated, on behalf of the native Village of Tuluksak, December 29, 2005, BLM files, F-14949-EE.

Attachment 23. Letter from Andrew Gorn, Natural Resource Specialist II, State of Alaska Public Access Assertion and Defense Unit, to Stephanie Clusiau, Bureau of Land Management, January 26, 2006, BLM files, F-14949-EE.

Attachment 24. Letter from Marla Carter, Habitat Biologist for the State of Alaska Department of Fish and Game, to Denny Benson, BLM Deputy State Director of Conveyance Management, February 6, 2006, BLM files, F-14949.

Attachment 25. Ramona Chinn, BLM Acting State Director, Corrected IC No. 1997 to Tulkisarmute, Inc. and Corrected IC No. 1998 to Calista, Inc., June 27, 2006, BLM files, F-14949-A.

Attachment 26. Dominica VanKoten, BLM Chief of Navigability Section, Memorandum on Navigable Waters within the Tuluksak Village Project Area, August 15, 2006, BLM files, F-14949-A.

Attachment 27. Mark W. Fulmer, BLM Chief, Branch of Adjudication, IC No. 2063 to Bethel Native Corporation and IC No. 2064 to Calista Corporation, January 30, 2007, BLM files, F-14838-B.

Attachment 28. Jerry B. Lewis, BLM Chief, Branch of Survey Planning and Preparation, Memorandum on Navigable Waters within Deficiency Lands Selected by Bethel Native Corporation, Calista Corporation and the State of Alaska within the vicinity of the mining town of Nyac, May 5, 2009, BLM files, FF-14838-B2.

Attachment 29. Master Title Plats (MTPs) for townships along the Tuluksak River.

Attachment 30. Frank W. Holzheimer, Associate Mineral Engineer for U.S. Geological Survey, *Report on the New York-Alaska Gold Dredging Company Operation Bear Creek, Tuluksak River, Alaska,* Alaska Territorial Department of Mines, Prospect Evaluation (PE) 81-1, *Alaska*, Juneau, Alaska, 1926, p. 6.

Attachment 31. Dot Tideman, BLM Navigable Waters Specialist, Memorandum on Interviews on Tuluksak River and its Left-bank Tributary in Proposed Calista Land Exchange (T.10 N. Rs. 61 and 62 W., Seward Meridian), June 11, 1992, BLM files, F-14866.

# Tuluksak River System

HUC 30502, Zone 3, Kuskokwim River Region

## I. Name and Location of Waterway

The Tuluksak River is located in Zone 3 of U.S. Geological Survey (USGS) hydrologic unit 30502 (Figure 1) in the Kuskokwim River drainage. The name Tuluksak River is first reported in 1908 by A.G. Maddren of the USGS. 'Tulusksak" is a variant spelling of the river. The waterway is named for the village of Tuluksak located near its mouth. The town's name with its current spelling was listed by Ivan Petroff in the 1880 Census report.[1]

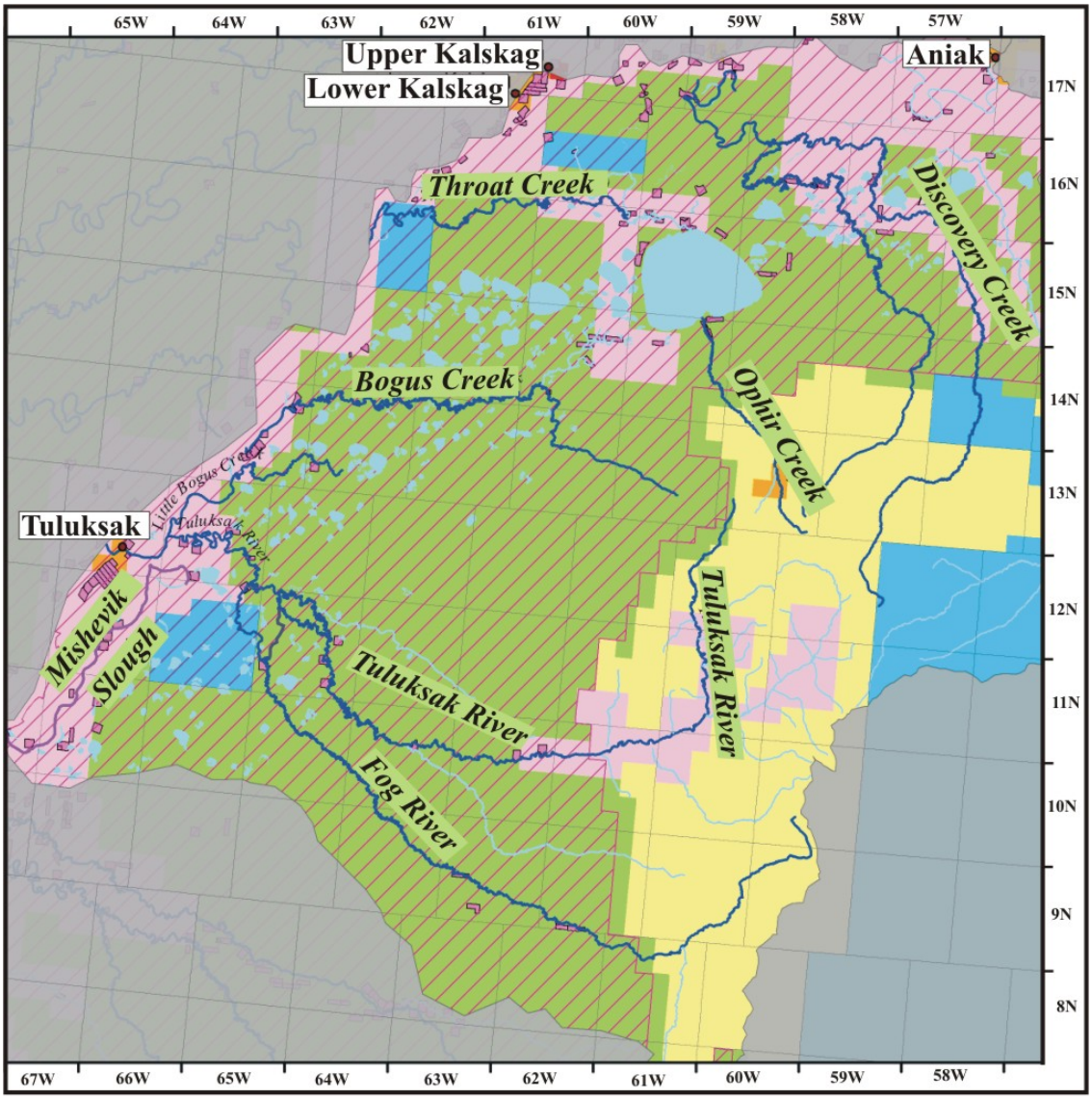


**Figure 1. Map showing the location of Tuluksak River in Zone 3 of HUC 30502.**

The townships for Tuluksak River include:

**Seward Meridian (SM): Township (T.), Range (R.) and Section (Sec.)**

| | | | |
|---|---|---|---|
| T. 13 N., R. 59 W., SEC. 29 | T. 11 N., R. 64 W., SEC. 36 | T. 11 N., R. 64 W., SEC. 03 | T. 12 N., R. 65 W., SEC. 15 |
| T. 13 N., R. 59 W., SEC. 31 | T. 11 N., R. 64 W., SEC. 35 | T. 11 N., R. 64 W., SEC. 04 | T. 12 N., R. 65 W., SEC. 21 |
| T. 13 N., R. 59 W., SEC. 32 | T. 12 N., R. 60 W., SEC. 32 | T. 11 N., R. 64 W., SEC. 05 | T. 12 N., R. 65 W., SEC. 16 |
| T. 12 N., R. 60 W., SEC. 04 | T. 11 N., R. 60 W., SEC. 05 | T. 12 N., R. 64 W., SEC. 32 | T. 12 N., R. 65 W., SEC. 20 |
| T. 12 N., R. 60 W., SEC. 09 | T. 11 N., R. 60 W., SEC. 08 | T. 10 N., R. 60 W., SEC. 06 | T. 12 N., R. 65 W., SEC. 19 |
| T. 12 N., R. 60 W., SEC. 08 | T. 11 N., R. 60 W., SEC. 09 | T. 10 N., R. 61 W., SEC. 01 | T. 10 N., R. 62 W., SEC. 12 |
| T. 12 N., R. 60 W., SEC. 17 | T. 11 N., R. 60 W., SEC. 16 | T. 10 N., R. 61 W., SEC. 02 | T. 10 N., R. 62 W., SEC. 13 |
| T. 12 N., R. 60 W., SEC. 18 | T. 11 N., R. 60 W., SEC. 21 | T. 10 N., R. 61 W., SEC. 11 | T. 10 N., R. 62 W., SEC. 11 |
| T. 12 N., R. 60 W., SEC. 20 | T. 11 N., R. 60 W., SEC. 28 | T. 10 N., R. 61 W., SEC. 03 | T. 10 N., R. 62 W., SEC. 14 |
| T. 12 N., R. 60 W., SEC. 29 | T. 11 N., R. 60 W., SEC. 33 | T. 10 N., R. 61 W., SEC. 09 | T. 10 N., R. 62 W., SEC. 15 |
| T. 10 N., R. 63 W., SEC. 11 | T. 11 N., R. 60 W., SEC. 32 | T. 10 N., R. 61 W., SEC. 08 | T. 10 N., R. 62 W., SEC. 16 |
| T. 10 N., R. 63 W., SEC. 14 | T. 10 N., R. 60 W., SEC. 05 | T. 10 N., R. 61 W., SEC. 07 | T. 10 N., R. 62 W., SEC. 17 |
| T. 10 N., R. 63 W., SEC. 15 | T. 11 N., R. 64 W., SEC. 23 | T. 10 N., R. 61 W., SEC. 18 | T. 10 N., R. 62 W., SEC. 18 |
| T. 10 N., R. 63 W., SEC. 10 | T. 11 N., R. 64 W., SEC. 14 | T. 12 N., R. 64 W., SEC. 31 | T. 10 N., R. 63 W., SEC. 13 |
| T. 10 N., R. 63 W., SEC. 16 | T. 11 N., R. 64 W., SEC. 15 | T. 12 N., R. 65 W., SEC. 36 | T. 10 N., R. 63 W., SEC. 12 |
| T. 10 N., R. 63 W., SEC. 09 | T. 11 N., R. 64 W., SEC. 10 | T. 11 N., R. 65 W., SEC. 01 | T. 12 N., R. 65 W., SEC. 30 |

| | | | |
|---|---|---|---|
| T. 10 N., R. 63 W., SEC. 08 | T. 11 N., R. 64 W., SEC. 26 | T. 12 N., R. 65 W., SEC. 25 | T. 12 N., R. 66 W., SEC. 25 |
| T. 10 N., R. 63 W., SEC. 17 | T. 11 N., R. 64 W., SEC. 09 | T. 11 N., R. 64 W., SEC. 06 | T. 12 N., R. 66 W., SEC. 26 |
| T. 10 N., R. 63 W., SEC. 05 | T. 11 N., R. 64 W., SEC. 08 | T. 12 N., R. 65 W., SEC. 26 | T. 12 N., R. 66 W., SEC. 27 |
| T. 10 N., R. 63 W., SEC. 06 | T. 11 N., R. 64 W., SEC. 05 | T. 12 N., R. 65 W., SEC. 23 | T. 12 N., R. 66 W., SEC. 28 |
| T. 10 N., R. 63 W., SEC. 07 | T. 11 N., R. 64 W., SEC. 11 | T. 12 N., R. 65 W., SEC. 27 | |
| T. 10 N., R. 64 W., SEC. 01 | T. 11 N., R. 64 W., SEC. 10 | T. 12 N., R. 65 W., SEC. 22 | |

Tuluksak is the only community located on the Tuluksak River and is situated on the south bank of the river at its confluence with the Kuskokwim River. The village is located approximately 35 miles northeast of Bethel and 370 miles west of Anchorage. The unincorporated village has a population of 461, the majority of which are Yupik Eskimo.

## II. Land Status

The Tuluksak River is bounded by federal lands, Native village and regional corporation lands, and Native allotment (Figure 2).

Beginning at its headwaters (river mile 101), the Tuluksak River flows for one mile through BLM lands. At river mile 100, the river enters Yukon Delta National Wildlife Refuge (NWR) lands and flows for a distance of approximately five miles. At river mile 95, the river enters BLM lands and flows for a distance of approximately five miles. At river mile 90, the river enters Native village and regional corporation lands and flows for approximately 24 miles. At river mile 66, the river enters Yukon Delta NWR lands and flows a distance of 51 miles, after which is enters Native village corporation lands at river mile 15 and flows west before emptying into the Kuskokwim River.

The entire Tuluksak is within the boundaries of the Yukon Delta NWR. These lands were originally withdrawn from unreserved public lands by the Secretary of the Interior under Sections 17(d)(1) and 17(d)(2) of the Alaska Native Claims Settlement Act (ANCSA) in 1971. The Togiak NWR was officially created in 1980 under the Alaska National Interest Lands Conservation Act (ANILCA). Title to the refuge lands is held by the United States and the Togiak NWR is managed by the U.S. Fish and Wildlife Service (USF&WS).

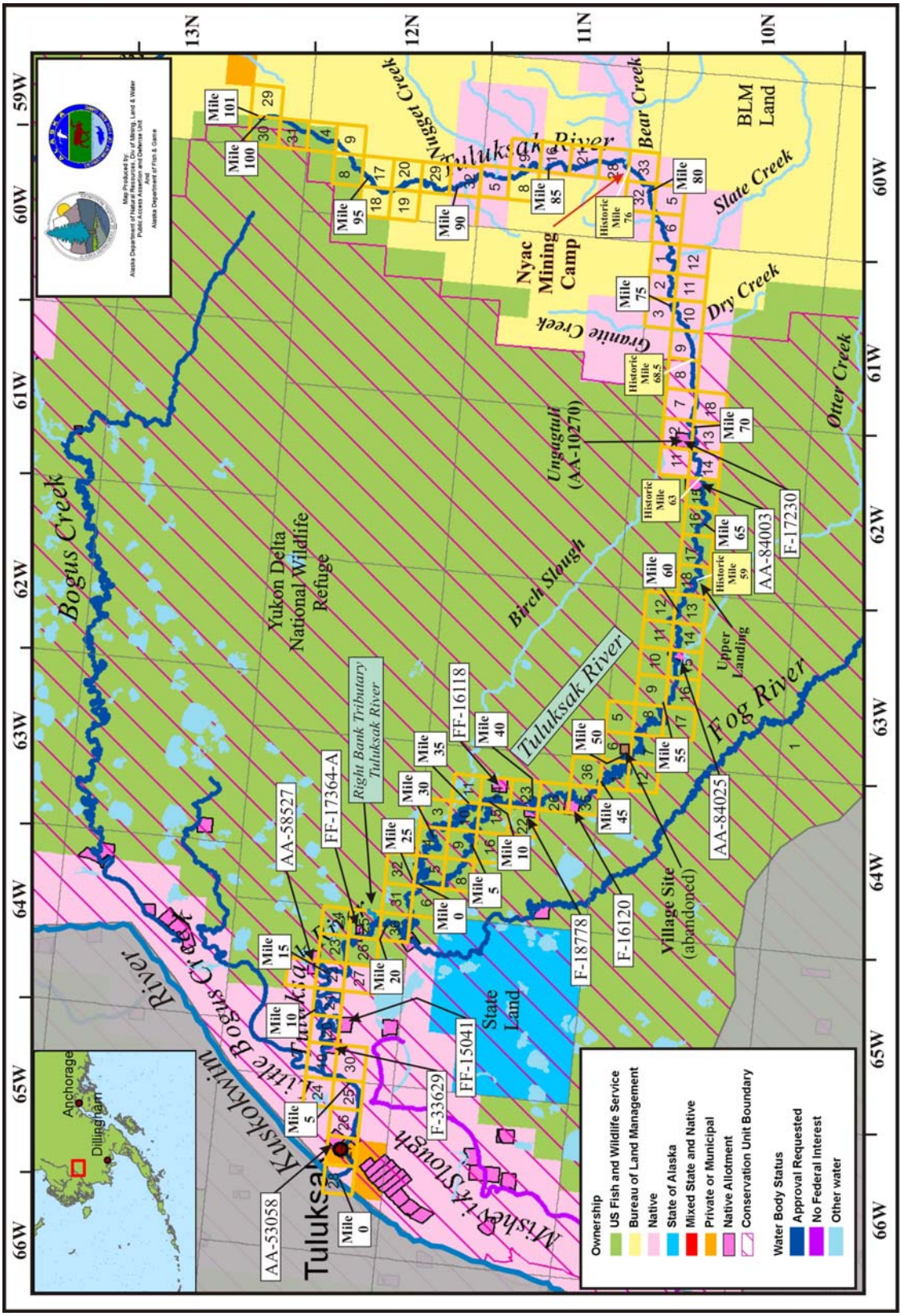


**Figure 2. Map showing Tuluksak River System and the location of Native allotments.**

The Tuluksak River flows through a total of 39 miles of Native village and regional corporation lands. Surface estate to Native village lands from river mile 0-15 were conveyed in Interim Conveyance (IC) No. 542 to the Tulkisarmute Village Corporation and the subsurface estate was conveyed in IC No. 543 to Calista Regional Corporation on August 27, 1982. Additional lands located from river mile 66 to river mile 90 were conveyed in IC No. 1123 to Tulkisarmute on September 30, 1985, and the subsurface estate was conveyed in IC No. 1124 to Calista Regional Corporation. The BLM issued Corrected IC 1997 to the Tulkisarmute Corporation on June 27, 2006, which modified IC No. 542, and issued Corrected IC No. 1998 to Calista Corporation, which modified IC No. 543. These two documents excluded Native allotments from the previous conveyances.

There are eleven Native allotments along the Tuluksak River. Four are located among Native village lands in the lower reaches of the river (river miles 0-15), and one is located among Native village lands in the upper reaches (river mile 69). Six Native allotments are located within the Yukon Delta NWR (river miles 18-57). One Native allotment, an in-holding within Native village lands, has been certificated.[i] Within the Yukon Delta NWR, three of the six Native allotments have been certificated.[ii]

## III. Navigability Determinations

Due to extensive historic use of the Tuluksak River, the BLM considered the river navigable during the early phases of Alaska Native Claims Settlement Act (ANCSA) land conveyance. In a navigability field report dated November 2, 1975, W. R. D. (Wayne R. Dawson, a BLM Navigable Waters Specialist) described "intermittent use for commerce" including barge traffic up the Tuluksak River for supplying operations such as the Nyac mines.[2] (Attachment 1) Dawson also stated the area was heavily used by locals as a transportation route and predicted that it would be used in the future as access to public lands in the region.

In early 1975, the BLM sent a village withdrawal map to Tununrmiut Rinit Corporation and various State and federal agencies soliciting easement recommendations for the Tuluksak Village area. The BLM officials met with village residents on October 24 to discuss all easements that had been recommended.[3] (Attachment 2) In a memorandum dated November 21, 1975, BLM Realty Specialist Gerald T. McWilliams wrote that one of the easements recommended was a linear stream bank easement along the Tuluksak River for recreational use. In summarizing comments from the October 24 meeting, McWilliams wrote that "Mining operations at Nyac have altered the character of this stream. The river has, however, been used historically to barge supplies and equipment to the Nyac gold fields and presents an avenue of travel to public lands blocked by Native selection."[4] (Attachment 3)

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[i] The certificate number for Native Allotment F-17230 is 50-2005-0472.
[ii] FF-16118 (50-2008-0096), F-18778 (50-2008-0073) and F-16120 (50-2008-0092).

On December 17, 1975, BLM Realty Specialist Patrick Beckley issued a memorandum determining the Tuluksak River navigable "upstream from its confluence with the Kuskokwim to the barge landing site in Sec. 32, T. 12 N., R. 64 W., SM" (river mile 25)[iii] by reason of travel, trade and commerce.[5] (Attachment 4) In a memorandum dated January 2, 1976, Beckley proposed easements for several trails off the Tuluksak River as well as for an existing haul road from the barge landing site to the mining community of Nyac, several miles upstream.[6] (Attachment 5)

In a proposed easement memorandum issued on August 24, 1976, BLM State Director Curtis V. McVee wrote that the Tuluksak River is navigable "upstream from its confluence with the Kuskokwim to the barge landing site in Sec. 32, T. 12 N., R. 64 W., SM." McVee recommended an easement for the existing haul road from the barge landing site to the mine and a five acre site easement at the barge landing site. He also recommended an all-terrain vehicle (ATV) trail easement from the Tuluksak Airport to the barge landing site, noting that "This is not an existing trail." Finally, the BLM State Director recommended a 25-foot continuous shoreline easement along both sides of the Tuluksak River upland of and parallel to the mean high-water line.[7] (Attachment 6)

On July 27, 1978, Stanley Bronzyk, a BLM Reality Specialist, wrote a memorandum providing the basis for recommendations on easements reserved in conveyances for Tuluksak. "The Tuluksak River is a navigable waterway which is used for travel, commerce, and recreation." The river, Bronzyk noted, "receives heavy local transportation use. It is also used for barge traffic to the village and Nyac mine."[8] (Attachment 7)

The BLM officials met with representatives of Tulkisarmute, Inc. in Tuluksak on December 12, 1980 to discuss a draft decision on proposed land conveyances. Following the meeting, a BLM official, Martin Karstetter, reported that villagers objected to most of the proposed Tuluksak barge landing easement at river mile 25 and the barge landing site easement as they believed that navigable waters (Tuluksak River) already provided sufficient access to the Nyac area. The villagers also noted that the barge landing no longer existed.[9] (Attachment 8)

On June 9, 1981, the BLM State Director, Curtis McVee, issued a final easements memorandum that reiterated that the Tuluksak River was navigable to the barge landing site in Sec. 32, T. 12 N., R. 64 W., SM (river mile 25) and listed the river as a major waterway. McVee rejected the village corporation's objection to the airport-barge landing site trail easement, but he accepted the corporation's objection to the proposed

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[iii] The river mile markers used in this report (i.e. "river mile 25") are based on Geographic Information System (GIS) calculations using the National Hydrography Data Set which was derived from U.S. Geological Survey quadrangle maps. The river mile marker system used in this report is different than river mile markers found in BLM/ANILCA documents (shown in this report as "historic river mile X"), which may be based on air miles between points rather than distances along the river bed of the main channel.

barge landing site easement. He also dropped a proposed 25-foot wide stream-side easement in width "on both banks of the navigable Tuluksak River from the confluence of the Tuluksak and Kuskokwim Rivers to the barge landing site" because the proposed easement did not meet the requirements of regulations published on November 27, 1978.[10] (Attachment 9)

Sandra Johnson, BLM Acting Chief of the Branch of ANCSA Adjudication, issued a decision on March 3, 1982 on proposed lands to be conveyed to the village of Tuluksak. The lands were close to the village and along the mouth of the Tuluksak River. On the maps included with the decision, the river was shown as navigable from its mouth through the selection area (Sec. 36, T. 12 N., R. 65 W., SM) and beyond to the Nyac storage building in Sec. 32, T. 12 N., R. 64 W, SM.[11] (Attachment 10) The BLM corrected this decision on June 23, 1982, because the maps "did not accurately portray the water bodies administratively determined to be navigable."[12] (Attachment 11) The BLM corrected maps added navigable waters that were not along the Tuluksak River.

The BLM conveyed the surface estate to Tulkisarmute Inc. in IC No. 542 and the subsurface estate to Calista Corporation in IC No. 543 on August 27, 1982.[13] (Attachment 12) Maps produced by BLM showed the Tuluksak River was navigable in T. 12 N., Rs. 65 and 66 W., and through Sec. 32, T. 12 N., R. 64 W., SM, to river mile 25.

In a memorandum dated May 22, 1985, John J. Rumps, the BLM Acting Deputy State Director for Conveyance Management, wrote that the Tuluksak River was navigable to a landing site "about 59 miles" upstream from the mouth of the Tuluksak, a few miles above Otter Creek (through Sec. 18, T. 10 N., R. 62 W., SM) [river mile 62]. This landing site was upstream of the former barge landing site called Upper Landing.[14] (Attachment 13) Rumps added that the river may be navigable beyond this landing site, as poling boats were used to transport supplies to mining operations farther up the river and its tributaries. "Insufficient information about the river's physical character and the size and payload of boats used above the Upper Landing stymies efforts to draw conclusions on the suitability of the remainder of the river for commercial boats."[15]

Ruth Stockie, the BLM Section Chief, Branch of ANCSA Adjudication, issued a Decision to Interim Convey (DIC) to Tulkisarmute, Inc. two tracts of land adjacent to the left bank of the Tuluksak in T. 12 N., R. 66 W., SM on July 31, 1985. The boundaries of these tracts were segregated from the river, but the BLM determined there were no navigable inland water bodies within the two parcels.[16] (Attachment 14) On September 30, 1985, Ann Johnson, the BLM Chief of the Branch of ANCSA Adjudication, conveyed the surface estate to Tulkisarmute, Inc. in IC No. 1123 and the subsurface estate to Calista Corporation in IC No. 124.[17] (Attachment 15)

On May 8, 1989, Wayne E. Boden, the BLM Deputy State Director for Conveyance Management, issued a navigability memorandum addressing an area encompassing eight ANCSA village selections, including Tuluksak. The BLM did not identify any reaches of the Tuluksak River as navigable beyond the previous navigability determinations from IC

Nos. 542 and 543 and the May 22, 1985 memorandum, which described the Tuluksak River as navigable through Upper Landing at historic river mile 59 (river mile 62.5). Table 5 of Boden's memorandum identified a right-bank tributary of the Tuluksak River in Sec. 25, T. 12 N., R. 65 W., SM as navigable through aerial photo-interpretation. Boden noted that the BLM considered "nontidal water bodies navigable if, at the time of Statehood, they were navigable for crafts larger than a one-person kayak."[18] (Attachment 16) The memorandum listed water bodies that were navigable through Native allotments and historic sites, but none of these allotments were located along the Tuluksak River.

Gust C. Panos, the BLM Deputy State Director for Cadastral Survey, issued a navigable waters memorandum on June 4, 1993 for a proposed land exchange north of the Tuluksak River near river miles 70-75. Panos reviewed prior determinations and accounts that indicated that people had once been able to navigate much farther upstream than was possible in 1992. Panos wrote that the Tuluksak River was navigable through the proposed exchange area, from Sec. 14, T. 10 N., R. 62 W., SM "through Sec. 8, T. 10 N., R. 61 W., SM ([historic] river mile 68.5)." Although their files contain evidence of use beyond this point, the BLM only determined it navigable to river mile 72. That was the extent of the land exchange area and aerial photos confirmed that "mining has not damaged this stretch of the river." The criterion Panos used in the determination was use or susceptibility for travel, trade and commerce by boats with a capacity of about 1,000 pounds.[19] (Attachment 17)

On December 13, 1995, C. Michael Brown, a BLM Navigable Waters Specialist, sent a letter to Michael Reardon, the manager of the Yukon Delta NWR, summarizing the navigability status of the Tuluksak River. In his letter, Brown described the Tuluksak River as navigable through historic river mile 59 and pointed out portions of five tributaries of the Tuluksak River that had been determined navigable: Little Bogus Creek; a right bank tributary of the Tuluksak River, which the letter states was determined navigable only in Sec. 26 of T. 12., R. 65 W., SM;[iv] the slough and lake system connecting the Tuluksak River to Mishevik Slough; Fog River; and a tributary along the Fog River.[20] (Attachment 18) In his letter, Brown did not mention the June 4, 1993 memorandum, in which Panos wrote that the river was navigable to river mile 72.

Heather Coats, a BLM Land Law Examiner, issued a DIC on February 21, 1996, approving 5,322 acres for conveyance through the land exchange along the Tuluksak River in T. 10 N., Rs. 61 and 62 W., SM. The decision excluded submerged lands up to the ordinary high water mark beneath rivers and streams 3 chains wide (198 feet) and wider, and lakes 50 acres and larger. These submerged lands, according to the DIC, "will be identified at the time of survey."[21] (Attachment 19)

On November 7, 1997, Gust Panos, the BLM's Chief of the Branch of Mapping Services, issued a memorandum reviewing water bodies in Survey Window 2700 prior to

[iv] The May 8, 1989 memorandum recommended the right-bank tributary of the Tuluksak River as navigable in Sec. 25 of 12 N., R. 65 W., SM, not in Sec. 26.

undertaking cadastral survey operations in the area. In this review, Panos confirmed that the

> Tuluksak River was determined navigable from its mouth to the Upper Landing located about 59 [BLM] miles upstream (See Navigability Report 5/22/85 Bethel Quad File) and to [historic river] mile 68.5 through Section 8, T. 10 N., R. 61 W., Seward Meridian. (See navigability report June 4, 1993 Bethel).[22] (Attachment 20)

The quoted portion of this memorandum implies the BLM determined the Tuluksak River was navigable from its mouth to river mile 68.5, but a close reading of the May 22, 1985 and June 4, 1993 documents (Attachments 13 and 17) indicates that the BLM had not made a navigability determination for the stretch of river between historic river mile 59 and historic river mile 63. The June 4, 1993 memorandum, which focused on the proposed Calista land exchange extending from river mile 63 to river mile 68.5 of the river, goes on to say: "In conclusion, we believe that the Tuluksak River is navigable through Section 8, T. 10 N., R. 61 W., SM ([historic] river mile 68.5). Mining has not damaged this stretch of the river." The November 7, 1997 BLM memorandum did not mention tributaries of the Tuluksak River or Native allotments on the Tuluksak River.

Denny Benson, a BLM Easements Coordinator, classified the Tuluksak River as a major waterway within lands selected by Tuliksarmute Corporation in memoranda dated September 26, 2005 [23] (Attachment 21) and December 29, 2005.[24] (Attachment 22) The State requested further easements along the river in letters dated January 26, 2006 [25] (Attachment 23) and February 6, 2006 [26] (Attachment 24), since a large portion of the Tuluksak River that passes through Native lands was determined navigable and no proposed easements existed on this segment of the river. On June 27, 2006, BLM Acting State Director Ramona Chinn issued Corrected IC Nos. 1997 and 1998, modifying IC Nos. 542 and 543.[27] (Attachment 25) These corrected ICs excluded Native allotments from the previous conveyances along the Tuluksak River.

On August 15, 2006, Dominica VanKoten, the BLM Chief of the Navigability Section, determined the Tuluksak River navigable within Native Allotment F-18778 (Secs. 22 and 23, T. 11 N., R. 64 W., SM) at river mile 39 and within Native Allotment F-16120 (Secs. 26 and 35, T. 11 N., R. 64 W., SM) at river mile 43. VanKoten also determined the river navigable in Sec. 1, T. 11 N., R. 65 W., at river mile 22; Secs. 15, 19-23, 25-27 and 30, T. 12 N., R. 65 W. (river miles 5-22); and throughout T. 12 N., R. 66 W., SM (river miles 0-5). She did not mention the upper river, since that was not part of the proposed survey area.[28] (Attachment 26)

Mark Fulmer, the BLM Chief of the Branch of Adjudication, issued IC No. 2063 to Bethel Native Corporation conveying surface estate lands in an area north of the Tuluksak River near Nyac on January 30, 2007. Fulmer issued IC No. 2064 to Calista Corporation conveying the subsurface estate. None of these conveyed lands bordered the Tuluksak River.[29] (Attachment 27)

On May 5, 2009, Jerry B. Lewis, the BLM Acting Chief of Survey, Planning and Preparation, identified navigable waters within deficiency lands selected by Native corporations and the State near the mining town of Nyac. Lewis extended "the upper limit of navigability on the Tuluksak River from the Upper Landing within Sec. 13, T. 10 N., R. 63 W. [river mile 62], upriver through Sec. 10, T. 10 N., R. 61 W., SM [river mile 75] based on the susceptibility of travel, trade and commerce along the river." His decision to extend the upper limit of navigability was supported by 1) color-infrared aerial (CIR) photography showing the un-obstructed course of the river; 2) length, width, depth, and channel characteristics obtained using USGS quadrangle maps, CIR photos, and interview reports, and 3) interviews conducted by BLM employees in 1992 with local Natives familiar with the river.[30] (Attachment 28) No maps were included with the memorandum.

Table l shows a summary of the documents relating to navigability determinations on the Tuluksak River and Figure 3 shows the portions of the river that the BLM determined navigable. The BLM has determined that the river is navigable from its mouth (river mile 0) upstream through Sec. 10, T. 10 N., R. 61 W., SM (river mile 75) based on physical characteristics, air photographs, and evidence of travel, trade and commerce. The BLM has not made a navigability determination for the Tuluksak River upstream of river mile 75.

The master title plats (MTPs) for the Tuluksak River are in Attachment 29. They show that BLM surveyors been meandered and segregated the Tuluksak River from river mile 0 (its mouth) through river mile 73.

**Table 1: Tuluksak River Navigability Determinations**

| Dates | River Section | Type Decision and Substance | Navigability Criteria |
|---|---|---|---|
| 12/7/1975<br><br>Attachment 4 | lower | Navigability Memorandum: Tuluksak determined navigable from confluence with Kuskokwim (river mile 0) to the barge landing site (river mile 25). | Travel, trade and commerce |
| 7/27/1978<br><br>Attachment 7 | lower | Easements Memorandum: "The Tuluksak River is a navigable waterway which is used for travel, commerce and recreation." | Travel, trade and commerce |
| 6/9/1981<br>Attachment 9 | lower | Easements Memorandum: reiteration of Navigability Memo of 12/7/1975; river a "major waterway" | Travel, trade and commerce |
| 3/3/1982<br><br>Attachment 10 | lower | Decision to Interim Convey (DIC): Tuluksak determined navigable from mouth (river mile 0) to Lower barge landing site (river mile 25). | Travel, trade and commerce |
| 6/23/1982<br>Attachment 11 | lower | DIC: Corrected navigability maps of DIC issued on 3/3/1982, | Travel, trade and commerce |
| 8/27/1982<br>Attachment 12 | lower | IC No. 542 and IC No. 543: Same as the 3/3/1982 DIC. | Travel, trade and commerce |
| 5/22/1985<br><br>Attachment 13 | lower & middle | Navigability Memorandum: Tuluksak River determined navigable from mouth (river mile 0) to Upper Landing (through Sec. 18, T. 10 N., R. 62 W, SM) at river mile 62. | Travel, trade and commerce |
| 7/13/1985<br><br>Attachment 14 | lower | DIC: Two parcels in Tuluksak adjacent to the river conveyed to the village corporation. No water bodies considered navigable within the two parcels. | (Not addressed) |
| 5/8/1989<br><br>Attachment 16 | middle | Navigability Memorandum: Reiterated that the Tuluksak is navigable from mouth to Upper Landing; identified a right-bank tributary of Tuluksak River navigable in Sec. 25, T. 12 N., R. 65 W., SM. | Craft larger than one-person kayak; aerial photo interpretation |
| 6/4/1993<br><br>Attachment 17 | middle | Navigable Waters Memorandum: Determined that Tuluksak River navigable from Sec. 14, T. 10 N., R. 62 W., through Sec. 8, T. 10 N., R. 61 W., SM (river mile 72). | Travel, trade and commerce; Boat with capacity of 1,000 pounds |
| 2/21/1996<br><br>Attachment 19 | middle | DIC: Approved conveyance of 5,322 acres along the Tuluksak River in T. 10 N., Rs. 61 and 62 W., SM, excluding submerged lands beneath rivers and streams 3 chains or more wide and lakes of 50 acres or more. Submerged lands to be identified at survey. | (Not addressed) |
| 11/7/1997<br><br>Attachment 20 | middle | Navigability Reports: Tuluksak River determined navigable from its mouth to historic river mile 68.5 (through Sec. 8, T. 10 N., R. 61 W., SM). | Boat with capacity of 1,000 pounds or more. |
| 8/15/2006<br><br>Attachment 26 | middle | Navigability Memorandum: Tuluksak River determined navigable in Native allotments in T. 11 N., R. 64 W. (river miles 39 & 43) and determined the river navigable in portions of T. 11 N., R. 65 W., T. 12 N., R. 65 W., and throughout T. 12 N., R. 66 W., SM (river mile 0 to river mile 22) | 1980 John Allan Memo |
| 5/5/2009<br><br>Attachment 28 | upper | Navigability Memorandum: Identified navigable waters in deficiency lands in vicinity of Nyac and extended the upper limit of navigability on the Tuluksak River from Upper Landing in Sec. 13, T. 10 N., R. 63 W., (river mile 62) upriver through Sec. 10, T. 10 N., R. 61 W., SM (river mile 75). | Susceptibility of travel, trade and commerce along the river; physical characteristics & documented use. |

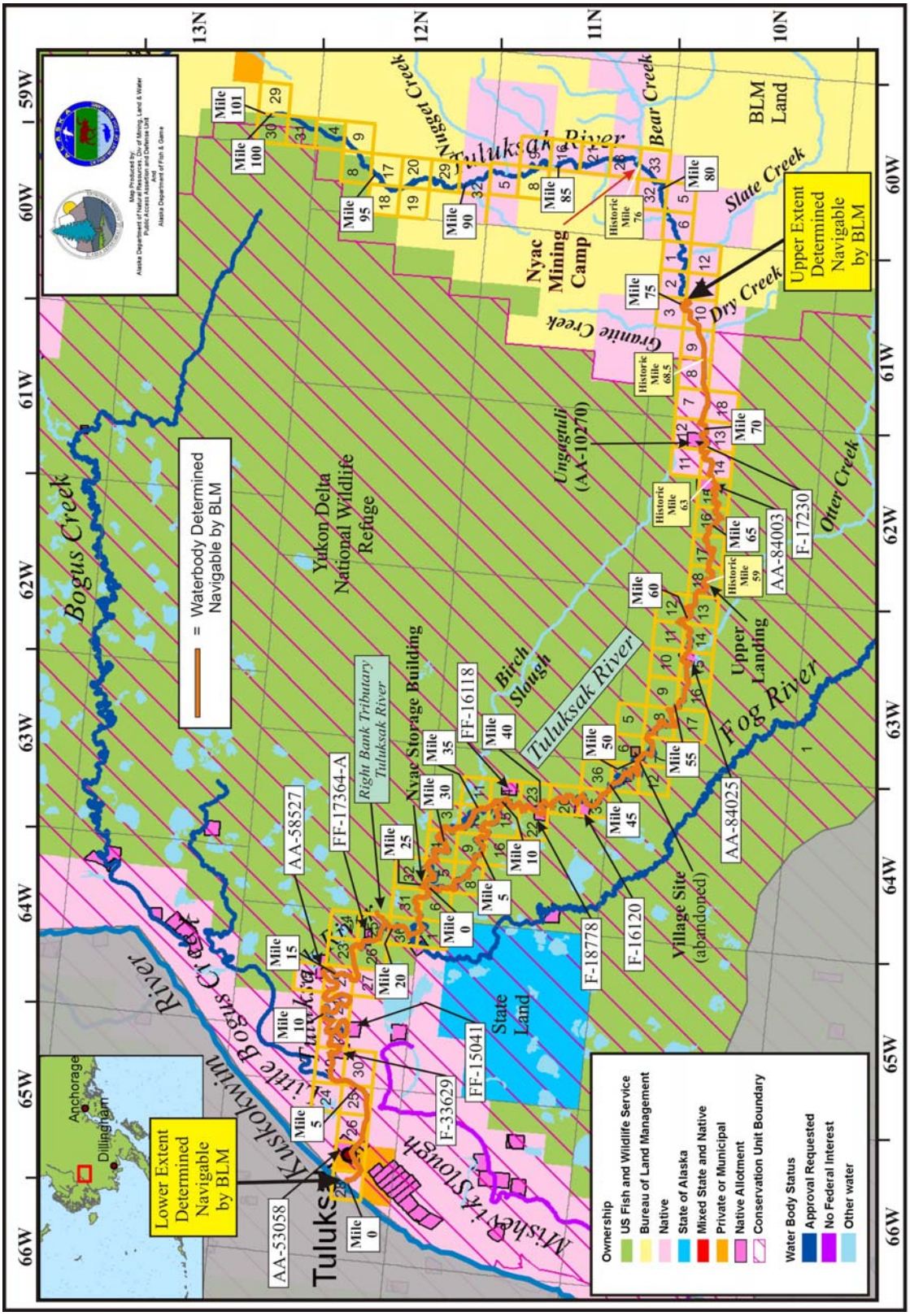


**Figure 3. Map showing Tuluksak River system, including portions of the river determined navigable by BLM.**

## IV. Physical Characteristics of Waterway

The Tuluksak River is about 101 miles long and drains an area of approximately 830 square miles. The headwaters are located in Sec. 29, T. 13 N., R. 59 W., SM, at approximately 1,750 feet above sea level, and drain the northwest part of the Kilbuck Mountains. From its headwaters, the river flows south through a wide valley. Foothills rise less than 1,000 feet on either side the river. The river turns west as it begins to emerge out of the foothills near Nyac, previously the site of intensive placer mining. As the Tuluksak reaches the area of Granite Creek at approximately 350 feet above sea level, the river enters the lowlands in Sec. 9, T. 10 N., R. 61 W., SM (river mile 73). From there, it flows northwest and becomes a slow moving meandering river, cutting through flat and wet tundra areas in its lower section.[31] Finally, the river turns and flows westerly through the village of Tuluksak and into the Kuskokwim River in Sec. 28, T. 12 N., R. 66 W., SM. From its headwaters to its mouth, the Tuluksak River drops about 1,400 feet in elevation. The average channel gradient is 17 feet per mile from the headwaters to the mouth.[32] (Attachment 30)

Bear Creek is the largest tributary of the upper Tuluksak and has a greater stream flow than the main river as it enters the Tuluksak at river mile 82. Other tributaries in the upper, mountainous portion of the river include Nugget, Slate, Granite and Dry creeks. After the Tuluksak emerges from the mountains, Otter Creek and Birch Slough are the largest tributaries in the middle portion of the river include. Important tributaries in the lower portion of the drainage include Fog River and Little Bogus Creek.

The portion of the river from river mile 101 downstream to river mile 70 consists of a single, swift channel that originates in the Kilbuck Mountains. Information describing the width and depth of the channel from river mile 101 downstream to river mile 90 was not found. The Tuluksak River emerges from the foothills at about river mile 70 and increases in width and depth as it is fed by Nugget, Slate, Granite and Dry creeks and other tributaries. Intensive mining took place along the river between river miles 70-85 (Figure 4). About river mile 70 to river mile 74 (the BLM documents refer to this as miles 68.5 and 63), high altitude photos show the river flowing in a single channel about 132 feet wide. Gravel bars frequently mark river bends. The river's gradient in this area is about 20 feet per mile.[33] (Attachment 17)

From river mile 70 to river mile 36, the Tuluksak River consists of a single channel with an average width of 50 feet and an average depth of 1.6 feet.[34] (Attachment 17) The bottom mostly consists of fine and medium gravel. The water is clear and the current is about four feet per second. Downed trees and log jams are frequently found in this portion of the river. Beginning at river mile 36 and extending downstream, the Tuluksak River cuts through tundra. Silt from the river gives the water a brown tone.[35]

**Figure 4. Tailing piles along the Tuluksak River in the vicinity of Nyac. Photo by Warptman, from http://media.photobucket.com/image/Tuluksak%20River/warptman/DSCF4305Large.jpg**

In 1991, Tuluksak resident Andrew Alexie stated that at high water in the spring and fall the Tuluksak River below Nyac is about 4 feet deep. During the summer, when water levels are lower, the river is about 1.5 to 2 feet deep. Mr. Alexie stated that sediment builds up during the summer making boating difficult. The only time that the water is boatable in this area, he stated, was between two weeks and six weeks in the spring and fall when the water is high. Sometimes the boats have to be unloaded and pulled upstream a short distance both in the summer and at high water.[36] (Attachment 31) Brad Benter, a biologist who worked for USF&WS during the early 1990s, noted that in the summer the middle portion of the river ranges from inches to about two feet deep, and is more sinuous, making the trip upstream more difficult around Granite Creek. Benter added that in the spring and fall, the river is over two feet deep near Clarence Clark's Native allotment (F-17320). It averages between 60 and 70 feet wide, and varies from 30 feet to 100 feet wide.[37] (Attachment 31)

The lower 36 miles of the Tuluksak River meanders considerably and averages about 80 feet in width. It divides into two channels near river mile 36, above Birch Slough. The channels merge again near the confluence with Fog River at river mile 21. The river bottom in most of the lower 36 miles is composed of mud and sand. Vegetation along the banks is primarily willow with some spruce, birch and cottonwood. Fog River, a major tributary in this section, drains a large area of tundra and contributes to the brown color of the water in the lower river. The Tuluksak above Fog River is slow moving. In 1977, the river's velocity was measured at 1.1 feet per second. The average depth was 4.6 feet and the calculated flow was 386 cubic feet per second (cfs).[38]

The Tuluksak River is located within the transitional climate zone, between the maritime and continental climatic zones. This transition zone in the Yukon-Kuskokwim Delta area extends 100 to 150 miles inland. Precipitation averages 16 inches of rain near Tuluksak, with snowfall averaging 50 inches. Summer temperatures range from 62 degrees Fahrenheit (F) to 42 degrees F, while winter temperatures range from 19 degrees F to -2 degrees F.[39]

Stream flow varies significantly with the season of the year and is the lowest in winter. During breakup in May, stream flow increases rapidly, peaking in June. Flows then decline, reaching a summer season low in July and August. Rains in late August and September cause brief peaks. A BLM hydrologist reported that high water levels extend from mid-May to late June. Streams typically freeze near the end of October and remain frozen until April or May. In the lowlands, the stream gradient is low and high water levels in these areas last well over a month.[40] (Attachment 17)

In 1984, employees of the Division of Geological and Geophysical Survey of the Alaska, Department of Natural Resources, floated the Tuluksak River and collecting hydrologic data. The float trip took place in June 1984 to collect data under high-flow conditions. Agency staff collected summer flow data at four locations along the river. The team collected a flow measurement of 250 cfs at river mile 75 on the Tuluksak River just upstream of Granite Creek, where the river was 95 feet wide and 1.0 feet deep. A flow

measurement of 267 cfs was collected at river mile 71, where the river was 112 feet wide and 1.0 feet deep. Just upstream of Otter Creek at river mile 58, the team collected a flow measurement of 343 cfs where the river was 122 feet wide and 1.8 feet deep. A flow measurement collected from the "left [south] channel" of the Tuluksak River at river mile 27, after the Fog River's East Channel enters the Tuluksak River, measured 473 cfs. The river in this location was 66 feet wide and 4.9 feet deep. This last measurement did not include flow data for the "right [north] channel" of the Tuluksak River.[41] State hydrologists collected a flow measurement on the river a mile above the village of Tuluksak (river mile 3) on June 2004. The stream flow discharge was 834.8 cfs, and the stream was 214 feet wide and 5.37 feet deep.[42]

There is evidence that the condition of the Tuluksak River has changed over time, but the extent of that change is unclear. Many of the changes may be the result of placer mining along the river near Nyac. In 1991, Peter Napoka, Sr., a resident of Tuluksak, stated the Tuluksak River became exceptionally shallow, narrow and silty in the 1930s and 1940s because of mining activity in the Nyac area.[43] (Attachment 31) The river returned to its former condition as mining activity declined in the 1950s. Some Tuluksak residents claim the river became shallower and more turbid as mining activity increased around Nyac in the 1970s and 1980s. An increase in beaver dams on the side streams may also have contributed to lower water levels.[44] Other residents of Tuluksak, Bethel and other communities who use the river do not believe the physical character of the river has changed significantly. They maintain that mining did no harm to the river, the water is in its normal condition, and they have continued to travel by boat up to the Nyac area.[45] (Attachment 31) All parties acknowledge that navigation on the river can be impeded by low water levels at times during the open water season. John J. Rumps, the BLM Deputy State Director for Conveyance Management, concluded in 1985 that the Tuluksak River remained in its natural and ordinary condition from the date of Statehood.[46] (Attachment 13)

## V. Evidence of Use on the Waterway

*Early Native Use of the Tuluksak River*

Human occupation of the Kuskokwim area goes back 11,000 years to nomadic hunters of Pleistocene animals. These hunters were supplanted about 1,900 B.C., when Eskimos from the north moved into the lower Kuskokwim drainage, bringing with them the so-called Arctic Small Tool tradition.[47] Permanent occupation of the interior Kuskokwim Delta with chronological continuity began about AD 600.[48] The *Kusquqvagmiut*, who descended from the Eskimos and are known as Yup'ik Eskimos or mainland southwest Alaskan Eskimos, have inhabited the Kuskokwim River and its tributaries down to the present as far inland as the village of Aniak. By 1880, their population was estimated at 3,100.[49]

The village of Tuluksak first appeared in the historical record in Petre Tikhmeniev's 1861 book, *A History of the Russian-American Company*,[50] which is probably based on information that originated from Lt. Lavrentiy A. Zagoskin's 1843 journey up the Kuskokwim River. The 1880 U.S. Census reported the village population as 150 people.[51] In 1890, the U.S. Census reported the population was 62 people.[52] The name of the village, according to one source, means "raven,"[53] but anthropologist Wendell Oswalt suggests that it is derived from the Eskimo word for a type of loon or black brant.[54] The original village was located on the north side of the Tuluksak River. A group of Japanese built a log store on the opposite side of the river in 1912 and the Bureau of Education opened a school nearby in 1930. The village gradually migrated across the river to the new location.[55] John Beck, an archaeologist with the BLM, conducted archaeological surveys in the Tuluksak drainage in 1983 and 1984. He located four prehistoric sites, each consisting of artifact scatters at overlooks adjacent to the Tuluksak River between river mile 69 and river mile 76.[56]

In 1975, Calista Corporation submitted applications to the BLM selecting eight historic sites spread out along the Tuluksak River from river mile 25 upstream to river mile 81. These sites were initially identified by oral accounts and the sites were verified by Bureau of Indian Affairs archaeologists who found cultural remains. The sites consist of one abandoned village site near river mile 25 and seven seasonal camps that were used during the spring, fall and winter. Three of the sites date from 1900-1920. Five sites are on Native allotment selections, indicating use up through recent decades. Together, the four sites found by the archaeologist and the eight sites selected by Calista indicate of a long history of Native activity along the Tuluksak River and its headwaters.

The *Kusquqvagmiut* have lived a traditional subsistence lifestyle that spans many centuries. Subsistence is a form of production and consumption in which hunting, fishing and collecting plants are the primary sources of food and other necessities of life. Traditional Alaska Native subsistence practices involve harvesting, distributing and consuming resources. These activities include important social and religious components, one of the most important of which is the distribution and exchange of subsistence products within families, between families and bands, and with Native groups outside their territory. Each Native culture in Alaska has its own set of customs and values governing the transfer of subsistence goods, falling into categories such as ceremonial, sharing, partnership, trade and commercial exchange. The cultural values that promote ceremonial feasting and distribution of subsistence resource goods have persisted in all Alaska Native groups.[57]

As contact with Russian fur traders and American missionaries, traders and miners increased in the nineteenth and twentieth centuries, the Native subsistence system of distribution and exchange gradually changed. While the *Kusquqvagmiut* continued to sustain themselves through their hunting, fishing, and gathering efforts, their involvement in the fur trade brought about significant changes.[58] Contact with American traders increased the interaction between subsistence production and commercial exchange, including the sharing and trading of commercial and subsistence goods.[59]

The *Kusquqvagmiut* traveled by water craft to harvest and transport subsistence resources to their village sites and to distribute them to other groups.[60] They used canoes to travel up the tributaries of the Kuskokwim River to fish for salmon, hunt and gather berries. Tributaries of the Kuskokwim, such as the Tuluksak River, enhanced the mobility of travelers and provided extensive access deep into the adjacent countryside.[61] Prior to the 1920s, the residents of the Tuluksak drainage lived in eight seasonal settlements and camps along the Tuluksak River in addition to the village at the mouth. During the 1920s, people who were living upriver on the land were drawn to the permanent village of Tuluksak after missionaries and the government built churches and schools. People who moved from the interior to Tuluksak continued to travel by water to traditional hunting and fishing areas and seasonal camps associated with them.[62]

Eskimos have used skin boats on the Tuluksak River for hundreds of years to return from the mountains after spring hunts. Prehistoric hunting camps, lookouts and ancient stone fences used to guide the caribou to harvest areas are scattered throughout the Kuskokwim Mountains in the headwaters of the Tuluksak River.[63] The core caribou hunting areas of Tuluksak hunters are at the headwaters of the Kisaralik, Kwethluk, Kasigluk, Tuluksak and Aniak rivers. Spring hunting in the mountains was an important part of the seasonal round for generations of Tuluksak, Kwethluk and Akiak Natives. Before white men and motor boats, the Eskimos took their families by dogsled to the headwaters of these rivers in the early spring. After spending weeks there harvesting parka squirrels and caribou, they constructed large skin boats. After breakup, they floated down the river in the skin boats, transporting meat, skins, sleds, dogs, tools and their families from their spring hunting sites on the upper Kwethluk, Tuluksak and Kisaralik rivers to their summer village sites near the Kuskokwim.[64]

The large shallow-draft skin boats, known as *angyaqatiit* (bearskin boat), were made for a single journey and disassembled at the end of the trip. This broad craft was well suited for shallow, fast-moving streams. They called it *angyaqatak* (from *angyaq*, 'open skin boat,' plus *qatak*, 'about to be') as they built them only to return home. They traveled to the mountains in spring without boats, but their plan was to come back down river after breakup. While they were hunting in the mountains, they tried to harvest enough caribou or bears to make a boat with their skins.[65] The *angyaqatiit* (Figure 5) were almost as wide as they were long, and often carried a family group. Their broad beam promoted safe travel in the fast-moving waters of shallow mountain streams. The boat was almost round and did not easily capsize in rapids. The vessel was made so it would not easily get crosswise with the current and fill with water. The wide beam enabled the boat to carry a heavy load. The oval-shaped hull gave it equal stability in all orientations. In rapids and turbulent currents, the *angyaqatiit* was much more stable than a kayak, but harder to steer, as the added stability meant that it resisted changing directions. Two people, one in the front and one in the back, used wide paddles to guide the boat away from rocks or logjams as they floated down stream.[66]

**Figure 5. Men riding in *angyaqatak*, skin boat on the Kwethluk River, 1930s. This is the same kind of boat built and used by Natives on the Tuluksak River. Photo from the Lind Collection, Anchorage Museum at Rasmuson Center.**

Some built *angyaqatiit* at their camping places high in the mountains. Others packed their spring harvest out of the high country and past places where the current could be hazardous before they would begin boat construction. The boat frames were made from cottonwood, alder and willow. Since there were few trees in the mountains, wood had to be collected, sometimes at quite a distance from where the boat was made. When wood was scarce, some men took apart their flat-bottomed sleds and used the slats for boat ribs. The men cut logs into one-inch-thick planks for the sides and bottom of the frame. The keel was made from a long, straight piece of wood running the length of the bottom. Sections of trunks or tree roots with a natural curve were used for the bow and stern pieces. The boat frame was then lashed together with rawhide line or cord. When the frame was complete, men covered it with bear, moose or caribou skins that were soaked in water and sewn together with waterproof stitches, then folded over the gunwales and lashed to the frame. The fur side of the skin rested against the frame to protect the skin from chafing against rough spots in the wood. This also helped with buoyancy, as waterlogged fur would weigh down the boat. After the boat frame was covered, the men heated caribou fat or tallow and used the rendered oil to paint the seams, making them watertight. If the seams were not painted, they would work loose, and the boat would fill with water. [67]

Boat size varied, depending on the success of the hunt and the load the hunters needed to carry. An *angyaqatak* covered with one moose skin could carry the moose meat and the person who killed it. Two moose skins or the equivalent skins of brown bear, black bear,

or caribou could be used to make larger boats. Hunters would make more than one boat if their load was large and they had enough skins. The hunters would transport their dogs in the boats if possible. If not, they would take the dogs on foot following the river. As they traveled down the river, men were on the lookout for logjams and downed trees blocking their path. When pushed by the current, boats could fill with water and sink.[68]

For centuries, local Natives used a spring and fall campsite at river mile 69 of the Tuluksak River called *Ungagtuli* (AA-10270), located at the intersection of Secs. 11-13, T. 10 N., R. 62 W., SM. They stopped there on spring and fall trips in which they went farther up the river. The primary activity at spring camps was trapping furbearers, particularly beaver, hunting big game and fishing.[69] (Attachment 17) There are three documented examples of local Natives using skin boats on the Tuluksak River in the 1920s and 1930s, and these natives usually stopped at *Ungagtuli* on their way down the river. In the 1920s, Peter Napoka Sr., and two other men walked to Clarence Marsh's camp at river mile 67 on a fall hunting trip. After harvesting beaver and several moose, the men constructed a ten-foot moose-hide boat. The boat carried the three men, their food, camping gear, and the moose meat. The water was lower than usual and they had to partially unload the boat and drag it across a shallow area on their way downstream to Upper Landing (river mile 62). Napoka and another man walked the tractor trail to Slate Creek (river mile 77) on a hunting trip in the fall of 1939. They built a moose skin boat and transported the meat from two moose down the Tuluksak River from Granite Creek to Upper Landing. They made one stop along the route.[70] (Attachment 31) Joe Demantle, a life-long resident of Tuluksak, told a BLM interviewer that his grandparents took large homemade skin boats carrying in excess of 1,000 pounds up the river past Nyac (river mile 82) for hunting and trapping.[71] (Attachment 31)

Local Natives also used wooden boats to travel up the Tuluksak River in the 1920s. Peter Napoka Sr., Waskie Roland and Peter Alexie, Sr. ascended the Tuluksak River in the 1920s at high water in a 16 to 18-foot wooden boat powered by a 25-horsepower outboard motor. The boat carried the three passengers and a heavy load of pipe for a mining company up the Tuluksak River to Garrison Place near the mouth of Dry Creek (river mile 73.5). They made the entire trip without touching bottom. The party camped at Garrison Place and also at Clarence Marsh's camp at Granite Creek for about a week. During another hunting trip in the 1920s, Napoka and three passengers made the same trip in a wooden boat carrying hunting gear with them upriver. On the return trip, they carried several moose in addition to their hunting gear. The trip took place in the fall after a heavy rain.[72] (Attachment 31)

### *Non-Native Use of the Tuluksak River in the Early Twentieth Century*

Extensive evidence of historic use of the Tuluksak River is documented in BLM case files and the BLM 1985 Kuskokwim Regional Report, authored by C. Michael Brown, *Alaska's Kuskokwim River Region: A History*.[73] Brown wrote extensively about the early mining on the Tuluksak River, relevant portions of which are summarized below.

Prospector William Fisher discovered gold in the Tuluksak River drainage at Granite Creek in 1907. The granite bedrock there was not considered a good formation for placer mining so Fisher and other prospectors extended their search over the divide into the valley of Bear Creek. There they found better prospects in 1908 and staked discovery claims.[74] About 50 miners worked the upper Tuluksak River drainage, but only a few located good claims.[75] The Tuluksak River was an important route for miners hauling people and supplies to their claims for a period of approximately thirty years after the initial discovery.[76] Although much of the supplies transported to the Bear Creek diggings were carried from Bethel during the winter, the newspaper *Iditarod Pioneer* reported miners transported supplies up the Tuluksak River in poling boats. These boats were taken upstream as far as the lower Bear Creek area to within a few miles of the mining operations.[77] In early 1908, the shallow-draft steamboat *Hattie B.* became trapped by ice for the winter on the river about 30 miles downstream from the Bear Creek diggings. Prospectors poled boats from the mouth of the Tuluksak River to the diggings on Bear Creek, a distance of approximately 75 miles. The trip took between 10 and 12 days.[78]

As mining progressed on Bear Creek, miners brought in testing equipment to evaluate the claims for possible dredging. During the spring of 1912, M. Anderson, the former captain of the U.S. Mercantile Company's schooner *North Star*, which spent the winter of 1909 at the mouth of the Tuluksak River, shipped a large mining outfit belonging to the Minneapolis Gold Mining Company on the schooner *Abler* to a point about "a mile or so" up the Tuluksak River.[79] Given the time of year and the difficulty of overland travel along the river, the outfit was probably shipped up the river in small boats.[80]

Two years later, in 1914, R.S. Eskridge, representing another outfit interested in installing a dredge on bear Creek, had the steamboat Alice land a large quantity of supplies and equipment at the mouth of the Tuluksak River. "A large force of men" used two boats equipped with outboard motors to haul the supplies and machinery from the mouth of the river to Bear Creek.[81] The Iditarod Pioneer reported in January 1915 that the miners had founded a town called Bear City near the claims on Bear Creek, and that the route to the diggings had "good boating for poling boats and horse scows."[82] In the summer of 1914, H.A. Cotton of the U.S. Coast and Geodetic Survey learned that the Tuluksak River was navigable for boats drawing three and one-half and four feet of water from the mouth to about 40 miles upstream.[83] Alfred F. Maddren, a USGS geologist, visited the area in 1914 and reported that while most miners transported supplies overland in the winter, some ascended the river during the open season to Bear Creek in poling boats.[84]

In the 1920s, the New York Alaska Gold Dredging Company, bought up most of the claims in the Bear Creek area and became the first large-scale mining venture on Tuluksak River. The company built a large camp at river mile 82 on the north side of the Tuluksak River and called it "Nyac" based on the company's initials. The company installed a large dredge on Bear Creek in 1925. The company transported the equipment and supplies for the dredge from Seattle to Bethel by steamer, then used a small

sternwheeler boat to carry all of the material and machinery used in the construction of the dredge and camp to Lower Landing, 32.5 miles upstream from the village of Tuluksak.[85] (Attachment 31) The small steamboat *Tacotna* moved 100 tons and the steamboat *Alaskan* transported 400 tons of company freight from Bethel to Lower Landing.[86] The company constructed a sheet-iron warehouse and stationed a watchman at Lower Landing.[87] Adolph Lind and Gasoline Nick used a smaller diesel-powered stern-wheeler to haul the dredge pieces up river to a second landing (called Upper Landing, river mile 62.5) about ten miles from the foothills.[88] A tractor hauled this material over a winter trail to Bear Creek. In the years after 1925, the company used poling boats to transport supplies in summer from the Lower Landing to Upper Landing, where the company maintained a tent camp that served as a warehouse for supplies. During periods of high water, poling boats could carry supplies another 13 miles upstream to the company's Foothills camp. A tractor hauled supplies from Upper Landing and Foothills camps to Nyac and Bear Creek. The company, which employed 40 men, operated the dredge from 1926 through the early 1930s.[89] (Attachment 30) The New York-Alaska Gold Dredging Company created a compass survey map of the Tuluksak River in 1924 showing mining camps, landing spots, river mile posts and widths of the river at selected points (Figures 6 and 7).

The New York Alaska Dredge Company had several good years in the 1920s, but production fell abruptly in 1929 and the dredge on Bear Creek did not operated in 1930. The company resumed dredging in 1931, and the yield of gold increased.[90] In 1935, the New York Alaska Dredging Company shipped in a smaller dredge and assembled it in 22 days. The company built an airstrip, which was used extensively for the first time in 1936 to import freight from Bethel. The old dredge was renovated in 1936-1937 and both dredges operated in 1937. Crews dug a 7-mile-long canal and constructed a hydroelectric plant in 1939 to supply power to the dredges.[91]

Mining also occurred on Mary Lou Gulch in the late 1920s and early 1930s[92] and began on Granite Creek around 1937. Alex Liska and associates mine on Granite Creek in 1938 was the largest in the Tuluksak drainage outside of Bear Creek.[93] The Garrison Company acquired the operation in 1939 and worked the claims with a dragline and tractor.[94] The company built support facilities, known as Garrison Camp, in 1936 or 1937 and used the camp for about a decade. Garrison also leased claims on Mary Lou Gulch during the late 1930s.[95] Mining shut down on the Tuluksak River drainage during the war, but resumed in 1946. The New York Alaska Gold Dredging Company resumed operating its two dredges, using the hydroelectric plant for power and employing a crew of 43 men. The Garrison Company operated a dragline on Granite Creek,[96] but ceased operations by 1949.[97] According to the U.S. Bureau of Mines *Yearbooks*, mining on the Tuluksak drainage was the leading placer producers in the Kuskokwim region after 1925. From 1945 to 1965, the Tuluksak drainage ranked third in placer gold production in Alaska after Nome and Fairbanks.[98]

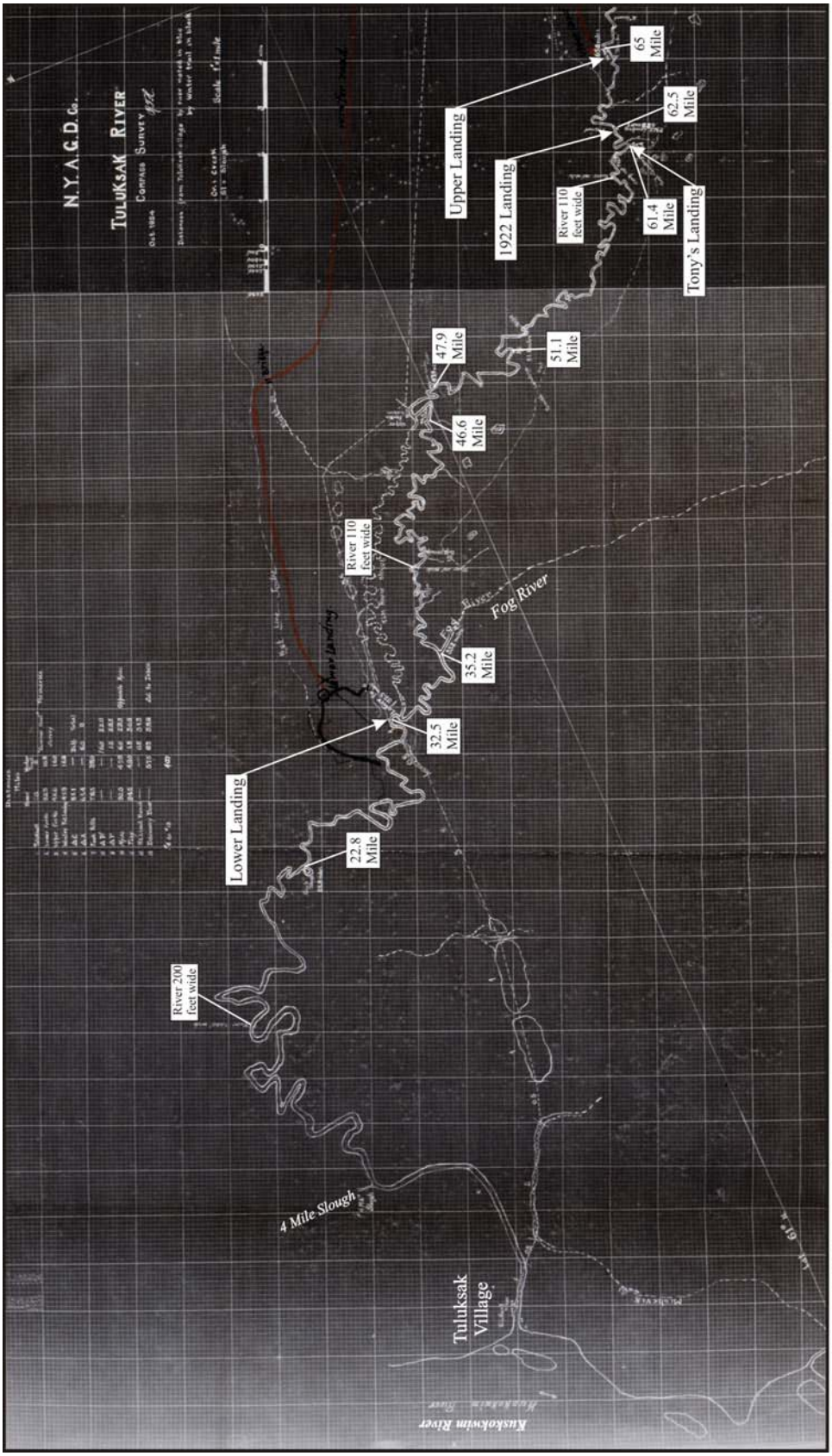


**Figure 6. A portion of the Tuluksak River compass survey map, October 1924, created by R. J. H. for the N.Y.A.G.D. Company. Record Group 30, Records of the Alaska Road Commission & Bureau of Public Roads, Program Planning & Research Correspondence, Juneau, Alaska, 1894-1958, Box 38, National Archives & Records Center, Anchorage.**

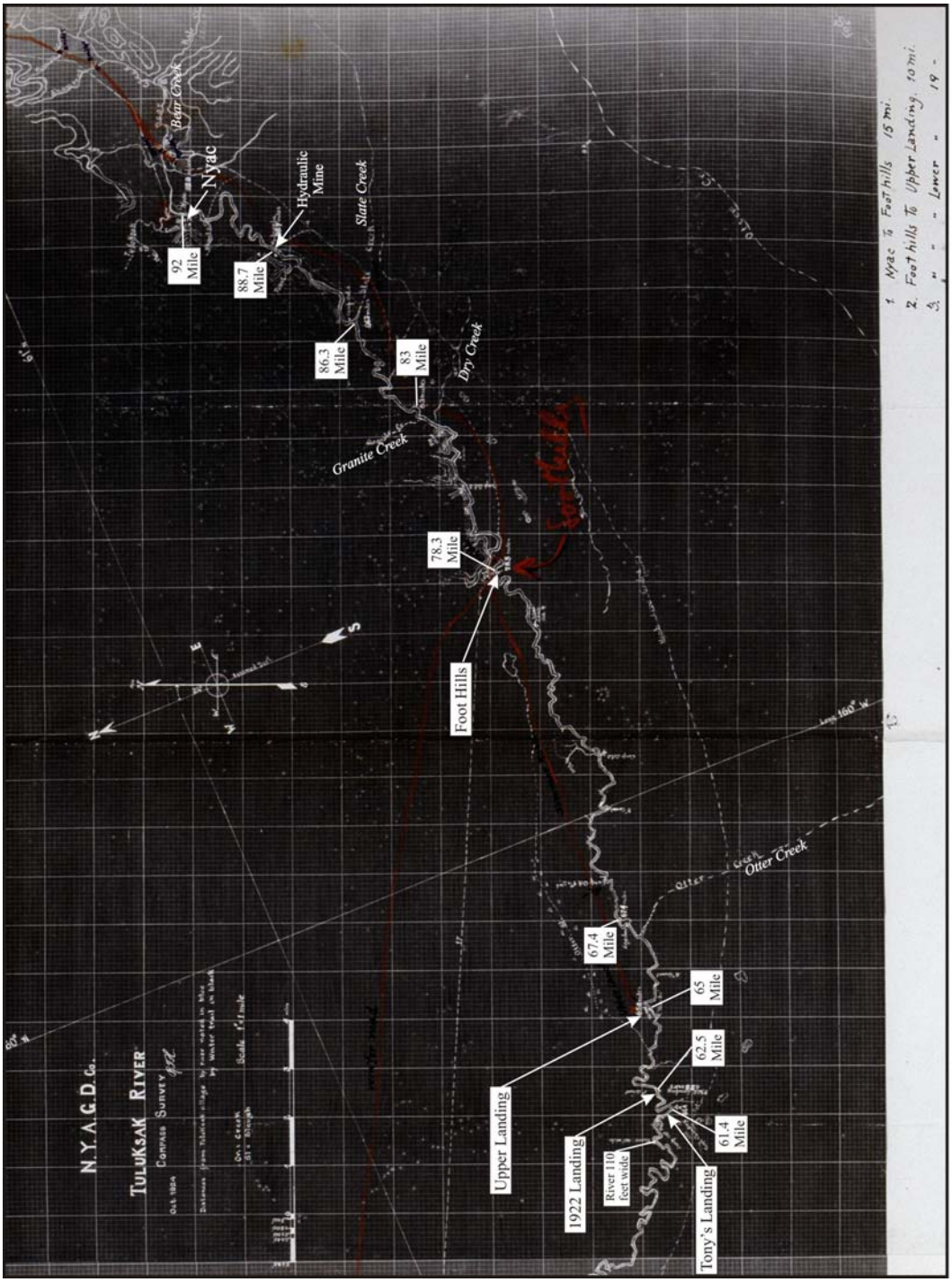


**Figure 7. Other portion of Tuluksak River compass survey map, October 1924, created by R. J. H. for the N.Y.A.G.D. Company. Record Group 30, Records of the Alaska Road Commission & Bureau of Public Roads, Program Planning & Research Correspondence, Juneau, Alaska, 1894-1958, Box 38, National Archives & Records Center, Anchorage.**

By 1914, shallow-draft steamboats could readily ascend the Tuluksak River to a point about 30 miles above its mouth, near the confluence with of the Fog River, and poling boats were used to freight supplies up the Tuluksak to Bear Creek.[99] In 1916, steamboats drawing 3-1/2 to 4 feet of water were able to travel the Tuluksak River from its mouth to about 40 miles upstream.[100] Akiak was one of the points from which equipment was shipped to Nyac by boat until an airfield was built at Nyac about 1936. The New York Alaska Dredging Company was a source of seasonal employment for men at Akiak and other lower Kuskokwim River villages.[101] In the 1940s, the U.S. Bureau of Mines reported the New York-Alaska Gold Dredging Company used boats to transport supplies up the Tuluksak. Depending on the condition of the water, boats were able to land at one of several locations along the river. Tractor trains were used to haul the freight from the landings for a distance of between 10 to 30 miles to reach the Bear Creek operations.[102] Freight carriers hauling supplies from the river landings to the mines frequently stopped at the Native camp site known as *Ungagtuli* (river mile 69). One of the earliest buildings constructed along the middle portion of the Tuluksak River was the Foothills Cabin, built at *Ungagtuli* on Native Allotment FF-17230. Jesse Oscar and John "Big" Hansen, who ran the mail to Nyac, reportedly built the Foothills Cabin in 1920s. It burned in 1927, but Clarence Clark and Tony Sumi rebuilt it. Clark, a Native from the village of Tuluksak, has used the cabin since 1940 for hunting, trapping and cutting wood.[103] (Attachment 17)

*Recent Native Use of the Tuluksak River Documented in Native Allotment Files*

Natives from Tuluksak traveled the Tuluksak River for subsistence hunting, fishing, trapping and berry picking in the years prior to 1959 and after statehood. The BLM began collecting information on Native activities on traditional lands in the 1970s to adjudicate Native allotment applications filed by local Natives. The Natives used various watercraft including power boats to reach favorite spots for hunting, trapping, fishing and berry picking along the river. These favorite spots, through customary use over many years, developed into exclusive use areas. The federal government recognized many of these allotments and transferred title to the sites to the applicants. Seven individuals filed Native allotment applications for parcels on the Tuluksak River between river mile 16 and river mile 69 within the Yukon Delta NWR.

John Napoka, Jr. of Tuluksak applied for a Native allotment (F-16118) on October 26, 1970. The 160-acre parcel is located along the Tuluksak River at river mile 38 in Sec. 14, T. 11 N., R. 62 W., SM. He began seasonal use of the parcel in November of 1955. Napoka used the land each year for hunting mink and picking berries in July and August.[104] There is no information in the Native allotment file describing how he accessed the parcel.

Elizabeth Andrew of Tuluksak applied for a Native allotment (F-18778) on November 28, 1971. The 160-acre parcel is located along the Tuluksak River at river mile 40 in Secs. 22-23, T. 11 N., R. 64 W., SM. She began seasonal subsistence use of the lands in 1960. Andrew used the land in the summer for berry picking, and has been

visiting the area since childhood.[105] There is no information in the Native allotment file describing how she accessed the parcel.

Carl M. Napoka of Tuluksak applied for a Native allotment (F-16120) on October 26, 1970. The 160-acre parcel is located at river mile 43 on the Tuluksak River approximately 12 miles southeast of Tuluksak in Secs. 26 and 35, T. 11 N., R. 64 W., SM. He began seasonal subsistence use in September of 1951 of the allotment. Napoka used the land for hunting, fishing, trapping and collecting berries.[106] There is no information in the Native allotment file describing how he accessed the parcel.

Joseph Alexie, a resident of Tuluksak, applied for a Viet Nam Veteran's Native allotment (AA-84025) on January 31, 2002. The 160-acre parcel of land is located along the Tuluksak River at river mile 57.5, in Secs. 10 and 15, T. 10 N., R. 63 W., SM. Mr. Alexie was born in 1944 and began using the parcel with his family in 1955. His father would take him out to the parcel in mid-March after breakup to teach him how to hunt.[107] He began independent use of the parcel in 1958 at the age of 14 and continued to use the land until he entered the military in 1968. In 1972 he was discharged from the military and resumed use of the parcel. His primary use of the land consisted of subsistence hunting, trapping and fishing. Mr. Alexie traveled to the parcel by boat up the Tuluksak River. The duration of the boat trip up the river from Tuluksak varied depending on the water level. When the water level was high, the trip took about four hours. If the water level was low, the trip could take up to two days as low water required Mr. Alexie to explore various river channels to reach his parcel.[108]

In 1960, Glenn K. Peltola of Bethel began traditional subsistence use of a parcel of land (AA-84003-B) located at river mile 67 of the Tuluksak River**,** in Secs. 10 and 15, T. 10 N., R 62 W., SM. Peltola hunted moose and bear from the property as well as snow geese and other birds. Peltola trapped beaver and otter, and fished for Dolly Varden, grayling and whitefish from the property. He also used the land for berry picking, collecting both blueberries and salmonberries on the parcel. Peltola used a snowmachine to reach his parcel in the winter. In the summer, he boated from Nyac (river mile 82) down the Tuluksak River to the parcel.[109]

Clarence Clark (deceased) of Tuluksak applied for a Native allotment (F-17230) along the Tuluksak River in 1971. The parcel is located along the river at river mile 69 within Sec. 12, T. 10 N., R. 62 W., SM. He began seasonal use of the parcel on May 1, 1948 for subsistence hunting and trapping, as well as wood cutting. Clark maintained continuous seasonal use of the parcel through March of each year into the late 1970s. Clark built and maintained a cabin on the property that was still standing at the time the BLM conducted a field examination of the parcel.[110] The first cabin on the parcel was built by miners in the 1920s and burned down in 1927. Clark rebuilt the existing cabin sometime after he first began intermittent use of the land in 1940.[111] (Attachment 18) A BLM employee interviewed the manager for Tuluksak Dredging--a company that mined in the vicinity of Clark's parcel--during the field examination of Clark's allotment in September of 1974. The manager stated Clark had been using the parcel for the previous 35 years.[112] The

Native allotment file did not contain information describing how Clark reached his parcel.

*Native Travel on the Tuluksak River Documented in BLM and State Subsistence Studies*

Subsistence harvest activities by Tuluksak residents were most intensive on the Tuluksak River and adjacent lands from 1980 to 1983. Trapping was the most extensive activity, prompting villagers to travel as far as 70 miles up the river to set trap lines. Moose and black bear hunters from the village traveled as far as 60 miles up the river in search of game. They reached these hunting areas by boat and on foot during the ice-free fall hunting season and by snowmachine during the winter. Villagers picked berries along the lower and middle portions of the Tuluksak River, and in some instances above Nyac.[113]

According to the BLM, the most common form of transportation used by local Natives in the 1990s to reach harvest areas along the Tuluksak and other nearby rivers was:

> an 18'-24' aluminum boat with 25-40 horsepower propeller motor. Seasonal weather conditions such as the amount of rain, the amount of snow, a mid-winter thaw, an extended dry season or the early breakup of the Kuskokwim River drainage system all effect the use and accessibility of these water-bodies.[114] (Attachment 21)

Tuluksak villagers contacted by the BLM in the early 1990s attributed drastic changes to the river to mining activity during the 1930s, 1940s, and 1980s. Where the Tuluksak River enters the Yukon Delta NWR, the mixture of land selections along the river was complicated by the overlapping presence of historic sites, Native allotments, mining claims and in-lieu selections. The New York Alaska Company, the largest mining outfit on the upper Tuluksak River from the 1920s through the 1950s, sold its interests to Tuluksak Dredging Limited in 1965 after a fire at the powerhouse closed operations. Tuluksak Dredging Limited reopened mining operations in 1972 and the company was still dredging in 1979.[115] In the mid-1980s, the Northland Mining Company operated in the vicinity of Nyac. Tuluksak Dredging Limited later relinquished much of the property covered by mining claims in the Tuluksak River drainage and Calista Corporation acquired the same ground under ANCSA Sections 12(a)(1)[v] and 14(h)(8).[vi] The New York Alaska Mining Company has operated dry land wash plants on Calista Corporation claims on Bear and Spruce creeks since 1990. Total production in the Nyac District since 1908 is estimated at more than 600,000 ounces of placer gold. Placer Dome, Inc. began hard rock drilling on Calista claims in 1996. In 2005 and 2006, Tonogold Resources, Inc. leased Calista lode claims in the Nyac area and has identified six large areas thought to be the long-sought source of placer gold in the area.[116]

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[v] An in lieu subsurface grant for areas where the regional corporation could not receive subsurface estate.
[vi] A grant for surface and subsurface estate made to the regional corporation.

During 1992, Dot Tideman, a BLM Navigable Waters Specialist, conducted interviews while investigating historic use on the Tuluksak River and Dry Creek, a left bank tributary, within a proposed Calista land exchange (T. 10 N., Rs. 61 and 62 W., SM). Andrew Alexie, a resident of Tuluksak, stated that in 1989 he took a 24-foot boat up the Tuluksak River as far as Otter Creek (river mile 57) while performing a water quality survey. Alexie indicated that he could have made it farther upstream, but his motor was too large for the conditions and he had no need to continue past Otter Creek.[117] (Attachment 32) Joe Demantle, a life-long resident of Tuluksak, stated that he and his family often went upriver past Nyac (river mile 82) in a boat carrying 1,000 pounds or more. Demantle traveled in an 18-foot boat as far upriver as Nyac during one of these trips.[118] (Attachment 31)

Billy Phillip of the Phillip Family Store in Tuluksak stated he traveled up the Tuluksak River during fall 1990 in an 18-foot boat with six other people and gear. He estimated that the combined weight carried in the boat was at least 1,000 pounds. The party took the boat upriver to Clarence Clark's Native allotment (F-17230) in Sec. 12, T. 10 N., R. 62 W, SM (river mile 69). Phillip reported that the water level was not as deep that year as in other years. He stated the party had to pull the boat across a shallow area just down river from Clark's allotment. Phillip added that he and his brother previously used boats on the Tuluksak River between river miles 70 and 82 every year for salmon and trout fishing, but recent mining had caused log jams because of lower water levels.[119] (Attachment 31)

Peter Waskie, a resident of Tuluksak, recalled taking a trip up the Tuluksak River in the fall. He and Waskie Roland ascended the river in a 20-foot boat to Clarence Marsh's camp at Garrison place, near Granite Creek (river mile 74). They descended the river without using the motor carrying, moose meat and 15 gallons of gas. In one area, they needed to pole the boat across a shallow bend in the river. Waskie stated that since the 1980s, mining operations have changed the river and made it more difficult to navigate.[120] (Attachment 31)

John Peter, President of the Tuluksak Village Council, recalled making six or seven hunting trips up the Tuluksak River in the fall during the 1970s and 1980s. The trips were made with Joe Demantle and Peter Lott. The group ascended the river in an 18-foot boat with a 20-horsepower outboard motor. They went to different places on these trips, such as Bear Creek (river mile 82.5), Nyac (river mile 82), Granite Creek (river mile 74), and Dry Creek (river mile 73). They often camped at Clarence Marsh's place (river mile 69) for periods of one day to a week, depending how long the high water lasted. Peter noted that the boat carried in excess of 1,000 pounds during each of the trips. In the interview, Peter was upset by the effects of mining on the Tuluksak River.[121] (Attachment 31)

Carl Napoka Sr. recalled ascending the Tuluksak River on two separate occasions: once in a 20-foot boat with a 140-horsepower outboard motor, and once in a 20-foot jet boat.

On both trips, he went as far as Clark's Native Allotment (F-17230) at river mile 69. During one of these trips, Napoka was accompanied by five other people. The party ascended the Tuluksak to go moose hunting in the fall when the river was high. Napoka reported the river's depth at about three and a half feet. The group had to pull the boat over shallow sections of the river for short distances three or four times, and once for about a quarter of a mile.[122] (Attachment 31)

*Government Studies and Use of the Tuluksak River Since 1959*

The BLM began considering the navigability of the Tuluksak River in 1975 while investigating possible easements locations on Tulkisarmute, Inc. land selections under ANCSA. In a report dated November 2, 1975, BLM employees noted that the river received heavy local use and was used intermittently for commerce, with motor boats, barges and skiffs navigating the river as far upstream as Nyac. A barge site was located on the river (river mile 21) near the mouth of the Fog River in Sec. 32, T. 12 N., R 64 W., SM. A haul road began at the barge site and extended upstream to Nyac.[123]

The Alaska Department of Fish and Game (ADF&G) studied fish resources use by fishermen on the lower 60 miles of the Tuluksak River in the 1970s. An ADF&G crew used a boat during the study, and biologist Kenneth Alt wrote that the Tuluksak River was "fairly easy to navigate, although there are many sweepers and log jams." He added that shallow water was the major factor limiting small boat navigation upstream of river mile 40. Alt concluded that the Tuluksak River received light subsistence and sport fishing pressure in the 1970s, mainly from residents of Tuluksak. Northern pike, grayling and Arctic char were the species most sought after by sport fishermen.[124]

On June 10, 1978, three BLM employees ascended the Tuluksak River in a boat[vii] to the barge landing site (river mile 25), where they found the remains of a dock, 55-gallon drums, machine parts, and a track. The three men then ascended Fog River to a point in Sec. 8, T. 11 N., R. 64 W., SM., where the stream was about twenty-five feet wide, before returning to Tuluksak.[125]

Stanley Bronzyk, a BLM Reality Specialist, wrote in an easements memorandum dated July 27, 1978: "The Tuluksak River is a navigable waterway which is used for travel, commerce, and recreation. The river receives heavy local transportation use. It is also used for barge traffic to the village and Nyac mine."[126] (Attachment 7) On June 9, 1981, Curtis McVee, the BLM State Director, wrote the Tuluksak River "has been used for many years for transportation and barge traffic."[127] (Attachment 9) The BLM officials made these statements during easement reviews that were part of ANCSA land conveyances. Nearly four years later, John Rumps, the BLM State Deputy Director for Conveyance Management, wrote that commercial waterborne craft can be used on the Tuluksak River at any time during the ice-free season.[128] (Attachment 13)

[vii] The size of the boat and type of motor is not mentioned in the agency report.

In 1992, Dot Tideman, a BLM Navigable Waters Specialist, interviewed a number of government workers who traveled the Tuluksak River as part of their work. One of them, Ken Harper, a USF&WS employee stationed in Kenai, worked at a fish weir on the Tuluksak River. The weir was located in Sec. 1, T. 10 N., R. 64 W., SM, near river mile 46. Harper stated there were sweepers in numerous places along the length of the river and that this made the river travel dangerous in the summer when the water was low. His crew traveled to the weir site by jet boat when the water level was low.[129] (Attachment 31)

Brad Benter, identified as a USF&WS biologist technician who worked the Tuluksak River fish weir during the summer in 1991, stated that he took a 16-foot Klamath jet boat upriver four separate times to within three or four miles of Nyac (river mile 82). Benter recalled observing a three-story dredge on the right bank of the Tuluksak River where "the heavy mining begins" (Sec. 3, T. 10 N., R. 61 W., SM, near river mile 75). He described the Tuluksak River's character as relatively uniform from the mouth upstream to Granite Creek (river mile 74), where sharp rocks began to appear in the streambed. Benter traveled the river in May, July, August and September of 1991. On one of the trips, he carried three passengers and gear with a total load of at least 1,000 pounds. During one trip upriver, Benter traveled the same distance as the previous trips, but during extremely low water. He stated that the water level ranged from just inches to about two feet deep, and that the meanders were more extreme which added to the difficulty of travel. During that summer, Benter said a boat longer than 16 feet with a load of around 1,000 pounds required "minimal pulling." He stated that during high water, a boat with a 1,000 pound load should be able to travel at least a mile upstream past Granite Creek with no problem, although a small amount of pulling might be needed.[130] (Attachment 31)

Steve Poor, a resident from Bethel, stated he had twice boated the Tuluksak River to a weir approximately ten miles downstream from Clarence Clark's cabin. On a separate trip in the spring of 1991, Poor and two other men ascended the river to Clark's cabin in a 115-horsepower flat-bottomed jet boat. From there they walked to Nyac, and eventually floated back down the river to Clark's cabin in a six to eight-man raft. On both the boat and raft trips, the men carried a week's supply of camping gear and food plus guns and gas.[131] (Attachment 31)

Kim Francisco, an ADF&G biologist stationed in Bethel, reported that he flew to Nyac with a hydrologist and geologist at the end of July and beginning of August in 1983 to study the effects of mining on the Tuluksak River. After two weeks at Nyac, the crew launched two rafts on the Tuluksak River about a mile upstream of Granite Creek (river mile 75). The load in each raft was approximately 400 pounds. They took water samples and counted fish on their way down the river. They took three or four days to float the Tuluksak to the mouth of the Fog River. The main channel of the Tuluksak was 2-3 feet deep between Granite Creek and Fog River, with some shallower areas. The rafts touched bottom twice between Granite Creek and Clarence Clark's Native allotment. The group

noticed silt in the river due to mining activities. Francisco claimed that boats with 1,000 pound loads can make it up the Tuluksak River as far as Granite Creek, but that beyond this point braided tailings in the river make boat travel difficult.[132] (Attachment 31)

Ron Perry, who worked for the USF&WS in Bethel, reported that he and two other people put in at Granite Creek with a 12-foot Zodiac raft and floated down the Tuluksak River in June of 1987. Besides the three passengers, the raft was loaded with three to four days of camping supplies and was equipped with a 35-horsepower motor. Perry described the Tuluksak River as being about 2 feet deep, although it was shallower near Granite Creek. They made the trip without touching bottom. Perry stated that in August and September the Tuluksak River becomes easy to boat in either direction. He indicated the river could be floated at any time.[133] (Attachment 31)

Gene Peltola, President of the Yukon Kuskokwim Health Corporation, lived in Nyac until 1964, when he moved to Bethel. During the late 1960s and early 1970s, Peltola ascended the Tuluksak River each September in an 18-foot Smoker Craft outboard boat with a propeller driven motor, traveling as far as Clarence Clark's Native allotment. Peltola stated that he could have traveled farther, but it would have been necessary to pull the boat in some sections of the river. Peltola took a trip in the late 1970s during low water. The jet boat was loaded with three adults and a teenager as well as camping gear and gas, with a total weight of over 1,000 pounds. He drove the boat upstream to Clarence Clark's Native allotment (river mile 69) and stated that he could have gone farther up river, but he had no reason to do so. Peltola said it was hard to give an exact depth for the river, but recalled that pulling boats across riffles was generally not a problem. He stated that a boat with a 1,000 pound load can travel down the Tuluksak River starting from Granite Creek. It may also be possible to put in farther up the river. Peltola claimed that a similarly laden jet boat can ascend the Tuluksak River as far as Granite Creek.[134] (Attachment 31)

Mac Wheeler, a BLM hydrologist based in Anchorage, stated that he and Kevin Meyer, another BLM employee, ascended the Tuluksak River in the summer of 1988 during low water. They traveled in an 18-foot flat-bottomed riverboat with a 35-horsepower jet unit. The jet boat drew 1/2 foot of water. They were unable to travel any farther than Secs. 17 and 18, T. 10 N., R. 62 W., SM (river mile 64) due to a large log-jam. They tried several channels in an attempt to go around it, but their boat was too large. Wheeler described the river as having variable depth. It was relatively deep near Fog River and 2 feet deep or greater farther upstream. He claimed that the Tuluksak River can be easily floated from the mining areas beyond Granite Creek.[135] (Attachment 31)

## VI. Summary

In 1975, the BLM determined the Tuluksak River was navigable from its mouth (river mile 0) through river mile 17. In 1982, the BLM extended the navigability determination upstream to the barge landing site and storage building at Lower Landing

(river mile 25, Figure 3). Three years later, the BLM determined the Tuluksak River was navigable from its mouth "about 59 miles" to a second barge landing site called Upper Landing. Upper Landing is located at river mile 62 (Figure 3) at Sec. 18, T. 10 N., R. 62 W., SM. In 1993, the BLM identified navigable waters in a proposed land exchange with Calista Corporation and determined the Tuluksak River was navigable from BLM historic mile 63 (Sec. 14, T. 10 N., R. 62 W., SM, river mile 67) to BLM historic mile 68.5 (through Sec. 8, T. 10 N., R. 61 W., SM, river mile 73). The BLM in 2006 determined the river was navigable within Native allotments from river mile 0 through river mile 45, including Native allotments at river mile 39 and river mile 43. In 2009, the BLM extended the upper limit of navigability on the Tuluksak River upstream through Sec. 10, T. 10 N., R. 61 W., SM (river mile 75).

The MTPs show the Tuluksak River was meandered and segregated from the uplands from the mouth (river mile 0) upstream through T. 11 N., R. 65 W., SM (river mile 47) when BLM surveyed the land. The submerged lands were excluded from lands conveyed to Tulkisarmute, Inc., in IC No. 542 (upstream through river mile 47) and in IC No. 1123. Conveyed lands upstream of river mile 47 have not been surveyed yet.

Little is known about the physical character of the Tuluksak River above river mile 90. As it emerges from the foothills below river mile 90, the Tuluksak becomes a slow moving meandering river, cutting through flat and wet tundra areas in its lower section. The width of the river between river mile 36 and river mile 70 varies from 50 to 132 feet and the water level in the spring and fall is about 4 feet deep. During the summer, the water level ranges from 1.5-2 feet deep. The lower portion of the river is about 80 feet wide and the average depth is 4.6 feet. No white water, major obstructions, or avulsive events have been reported along the Tuluksak River below river mile 90. Some Tuluksak residents interviewed by the BLM felt that mining activity from the 1930s to the 1940s and particularly in the 1980s caused drastic changes in the Tuluksak River. Other river users interviewed by BLM though the character of the river was not affected by mining. The extent of change, if any, in the character of the river since statehood is unclear.

The Tuluksak River has a long history of use by local Native people and miners in the Tuluksak drainage. Four types of historic use prior to statehood have been documented by BLM and state subsistence studies. The first type of historic use prior to 1959 involved Native people using canoes to travel to a now-abandoned village and seven seasonal camps located along the river. This use is documented in ethnographic and subsistence literature. The second type of historic use prior to 1959 consists of three examples of local Natives building skin boats after fall hunting trips along the river in the foothills (river miles 67-90). The Natives used the skin boats to carry themselves, their gear and the meat down stream to Tuluksak. The third type of historic use prior to statehood involved local Natives using wooden skiffs with outboard motors to travel up river for hunting, fishing and berry picking. Two examples of travel using wooden skiffs with outboard motors in the 1920s were documented during interviews conducted by the BLM. Five local Natives who applied for Native allotments along the river used their parcels prior to 1959 during the spring, summer or fall when the river was not frozen.

While three of the Native allotment files do not mention the means of access, two of the files include documentation that access to allotments was by boat.

The fourth type of use prior to statehood involved miners using boats on the Tuluksak River to transport equipment, supplies and workers to the placer mines on the river between river mile 67 and river mile 82. Historic records and mining reports show that prospectors and miners used poling boats and wooden skiffs with outboard motors to ascend the river. In 1916, miners used scows and shallow-draft steamboats drawing three and a half to four feet of water to move heavy equipment, including several disassembled dredges, up the river to Lower Landing at river mile 32.5 and, when the water was high, to river mile 40. Poling boats and tractors were used to move the heavy equipment up to Upper Landing at river mile 62 (Figure 3). During periods of high water, some miners were able to ascend the river in poling boats and skiffs with outboard motors all the way to the mouth of Bear Creek at river mile 82, where Nyac Camp was located. The largest mining operator, the New York Alaska Dredging Company, used boats to transport supplies up the Tuluksak River in the 1940s after World War II.

Two types of use of the river have been documented since statehood. The first type of use since 1959 is local Natives who use the river for transportation when conducting subsistence activities. The residents of Tuluksak have used six Native allotments along the middle portions of the river (river miles 15-69) during spring, summer or fall since 1959. Native allotment files show three of the six allottees travel to their parcels by boat, while the other three allotment files do not mention means of access when the river is not frozen. In addition, local Natives who do not have allotments along the river have been using boats to travel the river to trap, hunt bears and pick berries. Subsistence reports and interviews conducted by the ADF&G and the BLM respectively include descriptions of travel by boat from the mouth of the river to near Granite Creek, with some boats traveling as far as Nyac. Most of the travel was conducted in the spring and fall during periods of high water, although some summer travel was reported. In the 1990s, the most common watercraft used by the local natives was an 18 to 24-foot aluminum boat with a 25-40 horsepower propeller-driven motor. During interviews conducted by the BLM in the 1992, five local Natives stated that they have traveled up-river at least to river mile 69; three of the Natives stated they have traveled by boat to river mile 82. Some of the interviewees described travel on the Tuluksak River in boats with loads of 1,000 pounds or greater.

The second type of use since 1959 consists of state and federal agency employees who traveled the Tuluksak River while conducting resource surveys, attending to fish weirs, or during other official activities. Several of these trips were by jet boat and extended upriver nearly to Nyac. Other trips were down the river from Nyac using inflatable rafts.

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