JOHNSON RIVER SYSTEM

Including the North and West Forks and East and West Channels of the Johnson River, Arhymot Lake and its main inlet stream, Nunavakanukakslak Lake, and two unnamed lakes south of Kayigyalik Lake

HUC 30502, Zone 4, Kuskokwim River Region

FINAL INTERIM SUMMARY REPORT

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PREFACE

The research and writing of this study is funded by the U.S. Department of the Interior, Bureau of Land Management (BLM) through the Navigability Assistance Agreement (Cooperative Agreement # LO9AC15466). The State of Alaska (State) and the BLM established an assistance agreement in 2004 to facilitate the preparation of navigability reports that could be used for a variety of purposes, including the process for determining who owns 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 Navigability Assistance Agreement began as a pilot project focused on researching the history of use of water bodies in the Kuskokwim River region. The scope of work for the Assistance Agreement calls for identifying potentially navigable water bodies where the United States is an upland landowner or may otherwise have a potential interest in the submerged lands; gathering information from BLM records and a 1985 regional history of the Kuskokwim River region; writing narrative histories of each water body summarizing land status, land conveyance decisions, past navigability determinations, physical character of the water body, and a history of use on the water body. These reports are prepared in stages. The first stage (Phase I-A) consists of land status. An interim summary report (Phase II-B) is 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 C. Michael Brown in 1985. A final summary report (Phase IV) incorporates expanded research in materials located in other state and federal agency files, 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 writing of this report was conducted by State employees working under the guidance of an Assistance Agreement Management Team composed of representatives of BLM and the State. The management team sets priorities, reviews the reports on water bodies at various stages, and decides at what point enough research, analyses and writing has been completed on each specific water body. The management team directed the authors of these reports to refrain from drawing conclusions about the water body's navigability or susceptibility to navigability. Rather, the management team directed the authors to provide an overview at the end of the report summarizing the types of evidence of historic and contemporary use and highlighting those areas (such as portions of the water body) where gaps in knowledge remain and additional research might be warranted.

Documents that are key to understanding agency decision making or the point of view of an interested party are indicated as Attachment 1, Attachment 2, etc., which 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. For other completed Navigable Waters Research Reports in this series, see: http://www.dnr.state.ak.us/mlw/nav/naar/. The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the opinions or policies of the U.S. Government. Mention of trade names or commercial products does not constitute their endorsement by the U.S. Government.

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Attachment 10.	[unidentified author], handwritten notes on Navigable Waters in the
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- Attachment 25. Curtis V. McVee, BLM State Director, Memorandum on Amendment of Navigability Determinations Listed in May 22, 1980, State Director's Memorandum of Final Easements for Nunapitchuk, Limited for the Village of Nunapitchuk, March 10, 1982, BLM files, F-14914-EE.
- Attachment 26. Ruth Stockie, BLM Acting Chief of Branch of Adjudication, Decision of July 25, 1980, Modified in Part, Nunapitchuk Selections, March 23, 1982, BLM files, F-14914-A.
- Attachment 27. Robert D. Arnold, BLM Assistant to the State Director for Conveyance Management, IC No. 485 to Nunapitchuk Limited and No. 486 to Calista Corporation, March 15, 1982; Krissell Crandall, BLM Chief of Branch of Adjudication, Corr. IC Nos. 1907 and 1908, September 7, 2005, BLM files, F-14914-A.
- Attachment 28. Fred E. Wolf, BLM Acting State Director, Memorandum on Final Easements for the Village of Atmautluak, May 28, 1981, BLM files, F-14835-EE.
- Attachment 29. Sandra C. Thomas, BLM Acting Chief of Branch of Adjudication, Decision on Lands Proper for Village Selection Approved for Interim Conveyance in the vicinity of Atmautluak, September 14, 1981, BLM files, F-14835-EE.
- Attachment 30. Robert D. Arnold, BLM Assistant to the State Director for Conveyance Management, IC No. 448 for Atmautluak Limited and No. 449 for Calista Corporation, November 20, 1981; Krissell Crandall, BLM Chief of Branch of Adjudication, Corr. IC Nos. 1921 and 1922, September 21, 2005, BLM files, F-14835-A.
- Attachment 31. Letter from Ronald D. Arnold, State Director of BLM to Oscar Kawagley, President of Calista Corporation, October 21, 1980, and Draft Final Easements for the Village of Kasigluk, October 21, 1980, BLM files, F-14873-EE.
- Attachment 32. [author unidentified], Final Easements for the Village of Kasigluk, [no date], BLM files, F-14873-EE.
- Attachment 33. Sandra C. Thomas, BLM Acting Chief of Branch of ANCSA Adjudication, Decision on Lands Proper for Village Selection Approved for Interim Conveyance for the Native Village of Kasigluk, March 2, 1982, BLM files, F-14873-A.
- Attachment 34. Interim Conveyance No. 595 for Kasigluk, Inc. and No. 596 for Calista Corporation, December 27, 1982, BLM files, F-14873-A.
- Attachment 35. Ann Johnson, BLM Chief of Branch of ANCSA Adjudication, Decision on Lands Proper for Village Selection Approved for Interim Conveyance for the Native village of Kasigluk, February 15, 1983, BLM files, F-14873-A.
- Attachment 36. Interim Conveyance No. 678 for Kasigluk, Inc. and No. 679 for Calista Corporation, June 30, 1983, BLM files, F-14873-A.
- Attachment 37. Harold E. Wolverton, BLM Acting Deputy State Director for Conveyance Management, Memorandum on Navigability Determinations for 3(e) Selections, September 2, 1983, BLM files, F-14914-EE.
- Attachment 38. Ann Johnson, BLM Chief of Branch of ANCSA Adjudication, Decision on Lands Proper for Village Selection Approved for Interim Conveyance to Upper Kalskag Inc., September 30, 1982, BLM files F-14871-A.
- Attachment 39. Robert W. Arndorfer, BLM Deputy State Director for Conveyance Management, memorandum on Navigable Waters of the Kuskokwim Region, Alaska, November 8, 1984, BLM files, 2628 (NAV) (962).

- Attachment 40. Interim Conveyances No. 749 and Corrected IC No. 2013 for Upper Kalskag and No. 750 and Corrected IC No. 1567 for Calista Corporation, September 30, 1983, BLM files, F-14871-A.
- Attachment 41. Wayne A. Boden, Deputy State Director for Conveyance Management to Deputy State Director for Cadastral Survey, Memorandum on Navigable Waters in Group Survey No. 270 (Window 2028), June 13, 1990, BLM, Division of Cadastral Survey, Navigability Section and BLM files, F-14927-EE.
- Attachment 42. Laura J. Lagstrom, Navigability Report on Johnson River, June 5, 2002, BLM files, Navigability Section.
- Attachment 43. Wayne A. Boden, BLM Deputy State Director for Conveyance Management, Navigable Waters in Group Survey No. 268 (Window 1836), for Kasigluk, Nunapitchuk, Atmautluak, Bethel region, May 8, 1989, BLM files, F-14914.
- Attachment 44. Wayne A. Boden, BLM Deputy State Director for Conveyance Management, Navigable Waters in Group Survey 254 (Window 1834), May 8, 1989, BLM files, F-14871-EE.
- Attachment 45. Letter from Charlotte M. Pickering, Acting Chief of BLM Branch of Calista Adjudication, to Calista Corporation, June 12, 1990, and Charlotte M. Pickering to the Kuskokwim Corporation, June 21, 1990, BLM files, F-14990-A.
- Attachment 46. Letter from Mike Neimeyer, Calista Corporation, to Ann Johnson, BLM, September 21, 1990, BLM files, F-14990-A.
- Attachment 47. Letters from Charlotte M. Pickering, BLM Lead Land Law Examiner, to Nunapitchuk, Limited, and the Kuskokwim Corporation, December 3, 1990, BLM files, F-14914-A and F-14831-A.
- Attachment 48. Letter from Joanne M. Grace, Assistant Attorney General, Alaska Department of Law, to Manuel Lujan, Jr., Secretary of the Interior, August 27, 1992, PAAD files.
- Attachment 49. Laura J. Lagstrom, Navigability Report: Johnson River in the Kuskokwim River Drainage Area Window 1283, June 29, 2000, BLM Navigability Section Files, BLM Alaska Regional Office.
- Attachment 50. Gust C. Panos, BLM Chief of Branch of Mapping Services, Memorandum on Navigable Waters in Native Allotments Scheduled for Survey in Window 1283, July 5, 2000, BLM files, F-16998-A.
- Attachment 51. Laura J. Lagstrom, Navigability Report, Left Bank Tributary of Johnson River, June 5, 2002, BLM files, Navigability Section.
- Attachment 52. Gust C. Panos, BLM Chief of Branch of Mapping Services, Navigable Waters in Native Allotments Scheduled for Survey – Nunapitchuk 2001 (Group Surveys 254, 268 and 270), August 29, 2002, BLM files, F-16023-A.
- Attachment 53. Jerry B. Lewis, BLM Chief of Navigability Section, Memorandum on Navigable Waters within ANCSA-Selected and Interim-Conveyed lands in the Marshall/Ohogamiut/-Russian Mission Project Area (CAA-2), March 23, 2004, BLM files, F-14927-EE.
- Attachment 54. Dominica VanKoten, BLM Chief of Navigability Section, Memorandum on Navigable Waters within Survey Group Nos. 140, 268, and 284, March 16, 2007, BLM files, F-14835-A.

- Attachment 55. K.J. Mushovic, BLM Easement Coordinator, Notice of Proposed Easement Recommendations and Request for Easement Nominations on Land Selected by Kasigluk, Incorporated, March 27, 2007, BLM files, F-14873-EE.
- Attachment 56. K.J. Mushovic, BLM Easement Coordinator, Notice of Proposed Easement Recommendations and Request for Easement Nominations on Land Selected by Atmautluak Limited, August 6, 2007, BLM files, F-14835-EE.
- Attachment 57. K.J. Mushovic, BLM Easement Coordinator, Notice of Proposed Easement Recommendations and Request for Easement Nominations on Land Selected by Nunapitchuk Limited, August 23, 2007, BLM files, F-14914-EE.
- Attachment 58. Laura Lagstrom, BLM Navigable Waters Specialist, Interviews for Nunapitchuk Window, 2001, March 21, 2001, BLM Files, Marshall-FY2001, Navigability Section.
- Attachment 59. Laura Lagstrom, BLM Navigable Waters Specialist, Interview Report for Window 1283-Calista Upper Kuskokwim, [no date], BLM files, F-14871-A.
- Attachment 60. Curtis McVee, Final Easements for the Village of Kasigluk, April 7, 1978, BLM files, F-14873-EE.
- Attachment 61. Curtis V. McVee, BLM State Director, Notice of Proposed Easement Recommendations for the Village of Atmautluak, January 14, 1977, BLM files, F-14835-EE.
- Attachment 62. Neil P. Barnett, BLM Acting State Director, Memorandum on Final Easements for the Village of Atmautluak, October 13, 1977, BLM files, FF-14835-EE.
- Attachment 63. Martin L. Karstetter, BLM Realty Specialist, to Sherm Berg, BLM Realty Specialist, Two-way Memo on Navigability-Nunapitchuk, March 28, 1980, BLM files, F-14914-EE.
- Attachment 64. Robert D. Arnold, BLM Assistant to the State Director for ANCSA, Memorandum on draft Final Easements for the Village of Atmautluak, August 7, 1980, BLM files, F-14835-EE.
- Attachment 65. Martin L. Karstetter, BLM Realty Specialist, Memorandum to Files on Meeting with Calista Corporation to Discuss Certain Water Bodies Thought to be Navigable by Nunapitchuk, Limited, September 15, 1980, BLM files, F-14914-EE.
- Attachment 66. Martin L. Karstetter, BLM Realty Specialist, 2-Way Memo on Atmautluak F-14835-EE [Selections], December 30, 1980, BLM files, F-14835-EE.
- Attachment 67. Sherman Berg, BLM Realty Specialist, to Files, Memo on Navigability Review of the Atmautluak Selection, BLM files, F-14835-EE.
- Attachment 68. Ted Horner, "A Boat Ride from Bethel to Marshall," *The Delta Discovery* (Bethel weekly newspaper), July 23, 2003.
- Attachment 69. Jack Frost, BLM Navigable Waters Specialist, to Files, Memorandum on Federal Interest in Lands Underlying the Water Bodies within the Yukon-Kuskokwim Portage in the Lower Kuskokwim Subregion, Alaska, August 26, 2010, BLM files, AA-086377.
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Johnson River System HUC 30502, Zone 4, Kuskokwim River Region II-B Interim Summary Report

I. Introduction

The Johnson River System is located in the Yukon-Kuskokwim Delta Region, within Zone 4 of HUC 30502 (Figure 1). The Johnson River System consists of the Johnson River, including its North and West Forks and East and West channels, Arhymot Lake and its main inlet stream, and several lakes through which the river flows. Lakes through which the Johnson River flows include the eastern portion of Kayigyalik Lake, Nunavakanukakslak Lake, and two unnamed lakes south of Kayigyalik Lake (Figure 2 on page 5).

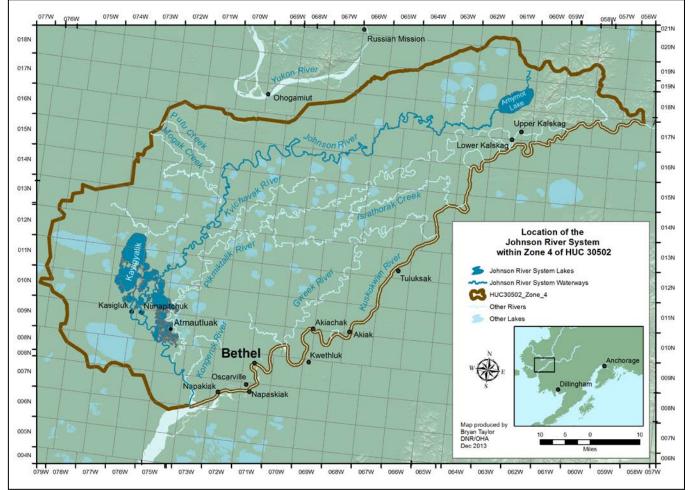


Figure 1. Map showing the location of the Johnson River System within Zone 4 of HUC-30502 in the Kuskokwim River Region.

The Johnson River System drains over 3,000 square miles of lakes, sloughs and streams from its source in Arhymot Lake to its mouth on the Lower Kuskokwim River below Bethel.¹ The river drainage comprises the largest compilation of unnamed lakes and sloughs in the Kuskokwim region. Major tributaries of the Johnson River include the Kvichavak and Pikmiktalik rivers and Putu Creek, as well as numerous unnamed lakes and sloughs. To minimize bulk in this report, Kayigyalik Lake has been segregated from the Johnson River system; it is included in another report covering the Takslesluk-Kayigyalik Lake System.ⁱ Sloughs between the Johnson and Pikmiktalik rivers have been assigned to the Pikmiktalik River System.ⁱⁱ

Johnson River

The Johnson River is one of a number of water bodies that drain an area of lowlands between the Yukon and Kuskokwim rivers and the northeast portion of the Yukon Delta National Wildlife Refuge (NWR). The upper part of the river is located northwest of the communities of Lower Kalskag and Upper Kalskag. The lower part of the Johnson River flows through the Native communities of Nunapitchuk and Kasigluk, and the community of Atmautluak is adjacent to Nunavakanukakslak Lake. Bethel, the nearest regional hub, is located 15 miles northeast of the mouth of the Johnson River. Three overland trails access the Johnson River System: the Bethel-Kasigluk Trail (RST-31), which crosses the North Fork of the Johnson River in Secs. 5 and 6, T. 9 N., R. 74 W., SM, the Bennett's Cutoff Trail (RST-28), which extends south from the Yukon River and intersects the Johnson River in T. 15 N., R. 68 W., SM, and the Akiakchak/ Akiak-Phillips Bro-Russian Mission Trail (RST-22), which extends south from Russian Mission on the Yukon River and then heads east along the Johnson River in T. 15 N., R. 68 W., SM. The far eastern portion of the upper Johnson River is part of the Yukon-Kuskokwim Portage.

The name Johnson River was reported in 1949 by the U.S. Coast and Geodetic Survey. The river is possibly named for Eric Johnson, a prospector. The lower reaches of the Johnson River have also been considered by Eskimos to be part of the Kvichavak River.² Other variant names include Anchitaktuk River and Tundra River.³

The Johnson River heads in Arhymot Lake in Sec. 2, T. 17 N., R. 62 W., SM. Arhymot Lake is at an elevation of 54 feet and is located about 4 air miles northwest of Upper Kalskag. From the outfall of the Arhymot Lake, the Johnson River begins flowing in a southwesterly direction for 240 miles.ⁱⁱⁱ

ⁱ See State of Alaska, Office of History and Archaeology, Navigable Waters Research Report No. 25

ⁱⁱ Pikmiktalik River System Report not finished at this time.

ⁱⁱⁱ River miles for the entire Johnson River are measured along the North Fork and East Channel for the middle section of the river.

Names of the upper Johnson River and Crooked Creek

At a meeting on August 8, 2013, the U.S. Board on Geographic Names approved an application for a name change that affected a section of the upper Johnson River. The application for a name change within the Geographic Names Information System (GNIS) was prepared and submitted by the State Historic Preservation Office (SHPO) and the Yukon Delta NWR and concerned two streams at the headwaters of the Johnson River. The two streams, one with a north-south orientation and the other with an east-west, have a confluence in Sec. 22, T. 17 N., R. 63 W., SM, at river mile 222 of the upper Johnson River.

The north-south stream, heads in a lake south of Kulik Lake in Sec. 14, T. 18 N., R. 63 W., SM and flows southerly for 18 miles until it joins with the east-west stream. The east-west stream heads in Arhymot Lake in Sec. 2, T. 17 N., R. 62 W., SM and flows approximately 18 miles until it joins with the north-south stream.

The east-west stream had been labeled "Crooked Creek" by the USGS since a 1916 survey and on maps since 1947. It was also so labeled in Donald J. Orth's *Dictionary of Alaska Place Names*, published in 1967. The north-south stream was labeled "Johnson River" by the Alaska Road Commission in 1923, by the USGS on a 1947 map, and also in Orth's book. However, the streams also have long been referred to by locals with the names reversed. This has caused confusion regarding game management boundaries in the area.⁴ The two names of the streams were not used consistently within BLM reports either.

The application for a name change initiated by the Yukon Delta NWR and the SHPO requested that the names of the streams be switched to reflect local usage. In accord with the board's approval of the application, this report will consider the east-west stream to be part of Johnson River, and the north-south stream as Crooked Creek, a tributary of the Johnson River. Crooked Creek is not included in this report.

West and East Channels

At river mile 46.5 (Sec. 34, T. 11 N., R. 74 W., SM), in the vicinity of Kayigyalik Lake and Nunavakanukakslak Lake, the Johnson River splits into two channels. The two scales of USGS topographic maps label different channels as the Johnson River. On the 1:63,360 scale topographic map, the channel that flows into and out of the east end of Kayigyalik Lake is labeled as Johnson River. On the 1:250,000 scale topographic map, the channel flowing into the north end of Nunavakanukakslak Lake and exiting out the west side is labeled as the Johnson River. Both channels are included in this report. The channel flowing into and out of Nunavakanukakslak Lake is labeled as the East Channel of the Johnson River and the channel flowing into and out of the east end of Kayigyalik Lake is labeled as the West Channel (Figure 2). It is unclear which channel is the main channel.

North and West Forks

The West Channel and the East Channel of Johnson River rejoin within an unnamed lake south of Kayigyalik Lake, labeled Unnamed Lake #2 in this report. A channel flowing out of the south end of Unnamed Lake #2 in Sec. 31, T. 10 N., R. 74 W., SM, has been labeled the North Fork of the Johnson River on supplemental plats for the MTP for T. 9 N., R. 74 W., SM. After leaving Unnamed Lake #2, the North Fork flows for approximately 5.0 river miles before its confluence with another section of the Johnson River, labeled here as the West Fork of the Johnson River, in Sec. 31, T 9 N., R. 74 W., SM. The West Fork also flows out of Unnamed Lake #2, exiting from the west side of the lake in Sec. 25, T. 10 N., R. 75 W., SM. From Unnamed Lake #2, the West Fork flows for approximately 1.0 river mile before entering Unnamed Lake #1 in Sec. 25, T. 10 N., R. 75 W., SM. The West Fork exits Unnamed Lake #1 in Sec. 26, T. 10 N., R. 75, SM. The West Fork flows for approximately 8.5 miles before joining the North Fork of the Johnson River to again form a single channel (Figure 2). It is unclear whether the North Fork or the West fork is the main channel.

From the confluence of the North Fork and West Fork, the Johnson River flows approximately 3.5 river miles into the southern part of Nunavakanukakslak Lake in Sec. 23, T. 9 N., R. 74 W., SM. It exits Nunavakanukakslak Lake in Sec. 36, T. 9 N., R. 74 W., SM and flows for approximately 22.5 river miles until it empties into the Kuskokwim River in Secs. 33 and 34, T. 7 N., R. 73 W., SM, about 20 river miles downstream from Bethel.

On supplemental plat No. 8 for the MTP for T. 10 N., R. 75 W., SM, a stream flowing out of Kayigyalik Lake in the south is named "Tundra River" with "Johnson" in parentheses. This stream flows from Kayigyalik Lake and joins the West Fork of the Johnson River near Kasigluk in Sec. 2, T. 9 N., R. 75 W., SM. This stream is not included as part of the Johnson River in this report.

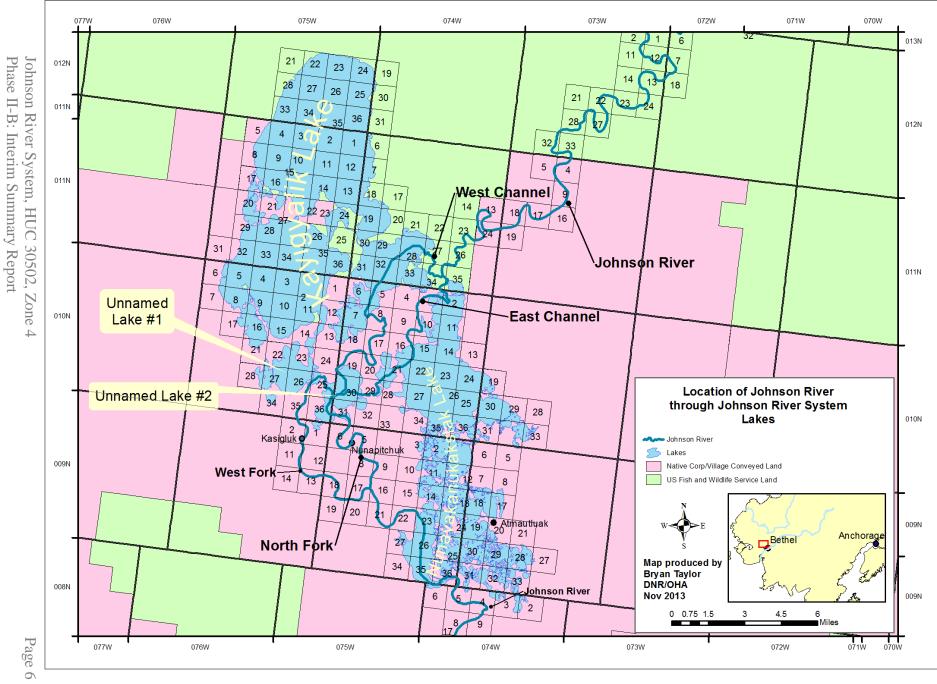


Figure 2. Map showing the location of the Johnson River through the Johnson River System Lakes.

The Johnson River is located within 26 townships: Townships (T.), Range (R.) and Section (Sec.), Seward Meridian (SM):

Johnson River (entire length)

T. 07 N., R. 73 W., Sec. 34	T. 09 N., R. 74 W., Sec. 06	T. 11 N., R. 73 W., Sec. 09
T. 07 N., R. 73 W., Sec. 34	T. 09 N., R. 74 W., Sec. 00	T. 11 N., R. 73 W., Sec. 04
T. 07 N., R. 73 W., Sec. 28	T. 09 N., R. 74 W., Sec. 20 T. 09 N., R. 74 W., Sec. 19	T. 11 N., R. 73 W., Sec. 04
T. 07 N., R. 73 W., Sec. 20	T. 09 N., R. 74 W., Sec. 19 T. 09 N., R. 74 W., Sec. 18	T. 12 N., R. 73 W., Sec. 03
	T. 09 N., R. 75 W., Sec. 13	T. 12 N., R. 73 W., Sec. 33 T. 12 N., R. 73 W., Sec. 32
T. 07 N., R. 73 W., Sec. 22		· ·
T. 07 N., R. 73 W., Sec. 16	T. 09 N., R. 75 W., Sec. 14	T. 12 N., R. 73 W., Sec. 29
T. 07 N., R. 73 W., Sec. 17	T. 09 N., R. 75 W., Sec. 12	T. 12 N., R. 73 W., Sec. 28
T. 07 N., R. 73 W., Sec. 08	T. 09 N., R. 75 W., Sec. 11	T. 12 N., R. 73 W., Sec. 21
T. 07 N., R. 73 W., Sec. 07	T. 09 N., R. 75 W., Sec. 02	T. 12 N., R. 73 W., Sec. 22
T. 07 N., R. 73 W., Sec. 06	T. 09 N., R. 75 W., Sec. 01	T. 12 N., R. 73 W., Sec. 27
T. 08 N., R. 73 W., Sec. 31	T. 10 N., R. 75 W., Sec. 35	T. 12 N., R. 73 W., Sec. 23
T. 08 N., R. 73 W., Sec. 30	T. 10 N., R. 75 W., Sec. 26	T. 12 N., R. 73 W., Sec. 24
T. 08 N., R. 74 W., Sec. 25	T. 10 N., R. 75 W., Sec. 25	T. 12 N., R. 73 W., Sec. 13
T. 08 N., R. 74 W., Sec. 36	T. 10 N., R. 74 W., Sec. 29	T. 12 N., R. 73 W., Sec. 14
T. 07 N., R. 74 W., Sec. 01	T. 10 N., R. 74 W., Sec. 21	T. 12 N., R. 72 W., Sec. 18
T. 07 N., R. 74 W., Sec. 02	T. 10 N., R. 74 W., Sec. 16	T. 12 N., R. 72 W., Sec. 07
T. 08 N., R. 74 W., Sec. 35	T. 10 N., R. 74 W., Sec. 09	T. 12 N., R. 73 W., Sec. 12
T. 08 N., R. 74 W., Sec. 26	T. 10 N., R. 74 W., Sec. 10	T. 12 N., R. 73 W., Sec. 11
T. 08 N., R. 74 W., Sec. 23	T. 10 N., R. 74 W., Sec. 04	T. 12 N., R. 73 W., Sec. 02
T. 08 N., R. 74 W., Sec. 22	T. 10 N., R. 74 W., Sec. 03	T. 12 N., R. 73 W., Sec. 01
T. 08 N., R. 74 W., Sec. 21	T. 10 N., R. 74 W., Sec. 02	T. 12 N., R. 72 W., Sec. 06
T. 08 N., R. 74 W., Sec. 15	T. 11 N., R. 74 W., Sec. 34	T. 13 N., R. 72 W., Sec. 36
T. 08 N., R. 74 W., Sec. 16	T. 11 N., R. 74 W., Sec. 35	T. 13 N., R. 72 W., Sec. 35
T. 08 N., R. 74 W., Sec. 10	T. 11 N., R. 74 W., Sec. 27	T. 13 N., R. 72 W., Sec. 25
T. 08 N., R. 74 W., Sec. 09	T. 10 N., R. 75 W., Sec. 24	T. 13 N., R. 71 W., Sec. 31
T. 08 N., R. 74 W., Sec. 17	T. 10 N., R. 74 W., Sec. 19	T. 13 N., R. 71 W., Sec. 32
T. 08 N., R. 74 W., Sec. 08	T. 10 N., R. 74 W., Sec. 18	T. 13 N., R. 71 W., Sec. 29
T. 08 N., R. 74 W., Sec. 04	T. 10 N., R. 74 W., Sec. 17	T. 13 N., R. 71 W., Sec. 30
T. 08 N., R. 74 W., Sec. 05	T. 10 N., R. 74 W., Sec. 20	T. 13 N., R. 71 W., Sec. 19
T. 09 N., R. 73 W., Sec. 31	T. 10 N., R. 74 W., Sec. 08	T. 13 N., R. 71 W., Sec. 18
T. 09 N., R. 74 W., Sec. 36	T. 11 N., R. 74 W., Sec. 27	T. 13 N., R. 71 W., Sec. 17
T. 09 N., R. 74 W., Sec. 23	T. 10 N., R. 74 W., Sec. 34	T. 13 N., R. 71 W., Sec. 07
T. 09 N., R. 74 W., Sec. 22	T. 11 N., R. 74 W., Sec. 26	T. 13 N., R. 71 W., Sec. 08
T. 09 N., R. 74 W., Sec. 27	T. 11 N., R. 74 W., Sec. 23	T. 13 N., R. 71 W., Sec. 05
T. 09 N., R. 74 W., Sec. 21	T. 11 N., R. 74 W., Sec. 24	T. 14 N., R. 71 W., Sec. 32
T. 09 N., R. 74 W., Sec. 28	T. 11 N., R. 74 W., Sec. 14	T. 14 N., R. 71 W., Sec. 29
T. 09 N., R. 74 W., Sec. 16	T. 11 N., R. 74 W., Sec. 13	T. 14 N., R. 71 W., Sec. 28
T. 09 N., R. 74 W., Sec. 17	T. 11 N., R. 73 W., Sec. 19	T. 14 N., R. 71 W., Sec. 20
T. 09 N., R. 74 W., Sec. 08	T. 11 N., R. 73 W., Sec. 18	T. 14 N., R. 71 W., Sec. 21
T. 09 N., R. 74 W., Sec. 09	T. 11 N., R. 73 W., Sec. 17	T. 14 N., R. 71 W., Sec. 17
T. 09 N., R. 74 W., Sec. 05	T. 11 N., R. 73 W., Sec. 16	T. 14 N., R. 71 W., Sec. 08

T. 14 N., R. 71 W., Sec. 07	T. 15 N., R. 69 W., Sec. 02	T. 17 N., R. 65 W., Sec. 27
T. 14 N., R. 71 W., Sec. 06	T. 15 N., R. 69 W., Sec. 01	T. 17 N., R. 65 W., Sec. 22
T. 15 N., R. 71 W., Sec. 31	T. 15 N., R. 69 W., Sec. 12	T. 17 N., R. 65 W., Sec. 15
T. 15 N., R. 71 W., Sec. 32	T. 15 N., R. 68 W., Sec. 07	T. 17 N., R. 65 W., Sec. 23
T. 15 N., R. 71 W., Sec. 29	T. 15 N., R. 68 W., Sec. 08	T. 17 N., R. 65 W., Sec. 26
T. 15 N., R. 71 W., Sec. 33	T. 15 N., R. 68 W., Sec. 05	T. 17 N., R. 65 W., Sec. 14
T. 15 N., R. 71 W., Sec. 34	T. 15 N., R. 68 W., Sec. 04	T. 17 N., R. 65 W., Sec. 13
T. 14 N., R. 71 W., Sec. 03	T. 15 N., R. 68 W., Sec. 09	T. 17 N., R. 64 W., Sec. 18
T. 15 N., R. 71 W., Sec. 27	T. 15 N., R. 68 W., Sec. 16	T. 17 N., R. 64 W., Sec. 19
T. 15 N., R. 71 W., Sec. 26	T. 15 N., R. 68 W., Sec. 15	T. 17 N., R. 65 W., Sec. 24
T. 15 N., R. 71 W., Sec. 23	T. 15 N., R. 68 W., Sec. 10	T. 17 N., R. 64 W., Sec. 20
T. 15 N., R. 71 W., Sec. 24	T. 15 N., R. 68 W., Sec. 03	T. 17 N., R. 64 W., Sec. 29
T. 15 N., R. 71 W., Sec. 25	T. 15 N., R. 68 W., Sec. 02	T. 17 N., R. 64 W., Sec. 28
T. 15 N., R. 70 W., Sec. 30	T. 15 N., R. 68 W., Sec. 11	T. 17 N., R. 64 W., Sec. 21
T. 15 N., R. 70 W., Sec. 31	T. 15 N., R. 68 W., Sec. 14	T. 17 N., R. 64 W., Sec. 22
T. 15 N., R. 70 W., Sec. 29	T. 15 N., R. 68 W., Sec. 13	T. 17 N., R. 64 W., Sec. 15
T. 15 N., R. 70 W., Sec. 20	T. 15 N., R. 68 W., Sec. 12	T. 17 N., R. 64 W., Sec. 22
T. 15 N., R. 70 W., Sec. 19	T. 15 N., R. 68 W., Sec. 01	T. 17 N., R. 64 W., Sec. 27
T. 15 N., R. 70 W., Sec. 18	T. 15 N., R. 67 W., Sec. 06	T. 17 N., R. 64 W., Sec. 33
	T. 15 N., R. 67 W., Sec. 05	T. 17 N., R. 64 W., Sec. 34
T. 15 N., R. 70 W., Sec. 07		
T. 15 N., R. 70 W., Sec. 08	T. 16 N., R. 67 W., Sec. 31	T. 17 N., R. 64 W., Sec. 35
T. 15 N., R. 70 W., Sec. 17	T. 16 N., R. 67 W., Sec. 32	T. 16 N., R. 64 W., Sec. 06
T. 15 N., R. 70 W., Sec. 16	T. 16 N., R. 67 W., Sec. 33	T. 16 N., R. 64 W., Sec. 05
T. 15 N., R. 70 W., Sec. 21	T. 16 N., R. 67 W., Sec. 34	T. 17 N., R. 64 W., Sec. 36
T. 15 N., R. 70 W., Sec. 22	T. 16 N., R. 67 W., Sec. 27	T. 17 N., R. 63 W., Sec. 31
T. 15 N., R. 70 W., Sec. 15	T. 16 N., R. 67 W., Sec. 22	T. 17 N., R. 63 W., Sec. 30
T. 15 N., R. 70 W., Sec. 10	T. 16 N., R. 67 W., Sec. 26	T. 17 N., R. 63 W., Sec. 19
T. 15 N., R. 70 W., Sec. 03	T. 16 N., R. 67 W., Sec. 35	T. 17 N., R. 63 W., Sec. 29
T. 15 N., R. 70 W., Sec. 02	T. 15 N., R. 67 W., Sec. 02	T. 17 N., R. 63 W., Sec. 28
T. 15 N., R. 70 W., Sec. 01	T. 15 N., R. 67 W., Sec. 01	T. 17 N., R. 63 W., Sec. 21
T. 15 N., R. 70 W., Sec. 12	T. 16 N., R. 67 W., Sec. 36	T. 17 N., R. 63 W., Sec. 27
T. 15 N., R. 69 W., Sec. 07	T. 16 N., R. 66 W., Sec. 31	T. 17 N., R. 63 W., Sec. 22
T. 15 N., R. 69 W., Sec. 18	T. 16 N., R. 66 W., Sec. 30	T. 17 N., R. 63 W., Sec. 23
T. 15 N., R. 69 W., Sec. 17	T. 16 N., R. 66 W., Sec. 19	T. 17 N., R. 63 W., Sec. 26
T. 15 N., R. 69 W., Sec. 08	T. 16 N., R. 67 W., Sec. 24	T. 17 N., R. 63 W., Sec. 25
T. 15 N., R. 69 W., Sec. 05	T. 16 N., R. 66 W., Sec. 18	T. 17 N., R. 62 W., Sec. 30
T. 15 N., R. 69 W., Sec. 06	T. 16 N., R. 66 W., Sec. 07	T. 17 N., R. 62 W., Sec. 29
T. 16 N., R. 69 W., Sec. 32	T. 16 N., R. 66 W., Sec. 08	T. 17 N., R. 62 W., Sec. 20
T. 16 N., R. 69 W., Sec. 29	T. 16 N., R. 66 W., Sec. 05	T. 17 N., R. 62 W., Sec. 21
T. 16 N., R. 69 W., Sec. 28	T. 16 N., R. 66 W., Sec. 04	T. 17 N., R. 62 W., Sec. 22
T. 16 N., R. 69 W., Sec. 27	T. 17 N., R. 65 W., Sec. 31	T. 17 N., R. 62 W., Sec. 15
T. 16 N., R. 69 W., Sec. 34	T. 17 N., R. 65 W., Sec. 32	T. 17 N., R. 62 W., Sec. 10
T. 16 N., R. 69 W., Sec. 33	T. 16 N., R. 66 W., Sec. 03	T. 17 N., R. 62 W., Sec. 11
T. 15 N., R. 69 W., Sec. 09	T. 17 N., R. 65 W., Sec. 02	T. 17 N., R. 62 W., Sec. 02
T. 15 N., R. 69 W., Sec. 10	T. 17 N., R. 65 W., Sec. 33	T. 17 N., R. 62 W., Sec. 03
T. 15 N., R. 69 W., Sec. 11	T. 17 N., R. 65 W., Sec. 34	

North Fork of Johnson River

T. 09 N., R. 74 W., Sec. 16 T. 09 N., R. 74 W., Sec. 17 T. 09 N., R. 74 W., Sec. 08	T. 09 N., R. 74 W., Sec. 09 T. 09 N., R. 74 W., Sec. 05 T. 09 N., R. 74 W., Sec. 06	T. 10 N., R. 74 W., Sec. 31
West Fork of Johnson River		
T. 09 N., R. 74 W., Sec. 17 T. 09 N., R. 74 W., Sec. 20 T. 09 N., R. 74 W., Sec. 19 T. 09 N., R. 74 W., Sec. 18 T. 09 N., R. 75 W., Sec. 13	T. 09 N., R. 75 W., Sec. 14 T. 09 N., R. 75 W., Sec. 12 T. 09 N., R. 75 W., Sec. 11 T. 09 N., R. 75 W., Sec. 02 T. 09 N., R. 75 W., Sec. 01	T. 10 N., R. 75 W., Sec. 35 T. 10 N., R. 75 W., Sec. 26 T. 10 N., R. 75 W., Sec. 25
East Channel of Johnson River		
T. 10 N., R. 74 W., Sec. 29 T. 10 N., R. 74 W., Sec. 21 T. 10 N., R. 74 W., Sec. 16 T. 10 N., R. 74 W., Sec. 09	T. 10 N., R. 74 W., Sec. 10 T. 10 N., R. 74 W., Sec. 04 T. 10 N., R. 74 W., Sec. 03 T. 10 N., R. 74 W., Sec. 02	T. 11 N., R. 74 W., Sec. 34 T. 11 N., R. 74 W., Sec. 35
West Channel of Johnson River		
T. 10 N., R. 75 W., Sec. 24 T. 10 N., R. 74 W., Sec. 19 T. 10 N., R. 74 W., Sec. 18	T. 10 N., R. 74 W., Sec. 17 T. 10 N., R. 74 W., Sec. 20 T. 10 N., R. 74 W., Sec. 08	T. 11 N., R. 74 W., Sec. 27 T. 10 N., R. 74 W., Sec. 34

Arhymot Lake and its inlet stream

The name of the lake is an Eskimo name presumed to have been reported by the U.S. Army Corps of Engineers.⁵ No names have been recorded yet for the Arhymot Lake inlet stream. The inlet is shown on USGS maps as an unnamed stream heading in an unnamed lake to the north and flowing south to empty into Arhymot Lake.

Arhymot Lake is approximately 23 square miles and is within 4 townships:

T. 17 N., R. 61 W., Sec. 04	T. 18 N., R. 62 W., Sec. 35	T. 18 N., R. 61 W., Sec. 21
T. 17 N., R. 61 W., Sec. 05	T. 18 N., R. 61 W., Sec. 26	T. 18 N., R. 61 W., Sec. 20
T. 17 N., R. 61 W., Sec. 06	T. 18 N., R. 61 W., Sec. 27	T. 18 N., R. 61 W., Sec. 19
T. 17 N., R. 62 W., Sec. 01	T. 18 N., R. 61 W., Sec. 28	T. 18 N., R. 62 W., Sec. 24
T. 17 N., R. 62 W., Sec. 02	T. 18 N., R. 61 W., Sec. 29	T. 18 N., R. 61 W., Sec. 13
T. 18 N., R. 61 W., Sec. 35	T. 18 N., R. 61 W., Sec. 30	T. 18 N., R. 61 W., Sec. 14
T. 18 N., R. 61 W., Sec. 34	T. 18 N., R. 62 W., Sec. 25	T. 18 N., R. 61 W., Sec. 15
T. 18 N., R. 61 W., Sec. 33	T. 18 N., R. 62 W., Sec. 26	T. 18 N., R. 61 W., Sec. 16
T. 18 N., R. 61 W., Sec. 32	T. 18 N., R. 61 W., Sec. 24	T. 18 N., R. 61 W., Sec. 17
T. 18 N., R. 61 W., Sec. 31	T. 18 N., R. 61 W., Sec. 23	T. 18 N., R. 61 W., Sec. 18
T. 18 N., R. 62 W., Sec. 36	T. 18 N., R. 61 W., Sec. 22	

The Arhymot Lake inlet stream is located within 2 townships:

T. 18 N., R. 61 W., Sec. 11	T. 18 N., R. 61 W., Sec. 03	T. 19 N., R. 61 W., Sec. 26
T. 18 N., R. 61 W., Sec. 10	T. 19 N., R. 61 W., Sec. 34	T. 19 N., R. 61 W., Sec. 27
T. 18 N., R. 61 W., Sec. 02	T. 19 N., R. 61 W., Sec. 35	

Nunavakanukakslak Lake

The name Nunavakanukakslak is the Eskimo name reported by the United States Coast and Geodetic Survey in 1949.⁶ This name is the name currently listed within the USGS Geographic Names Information System. No variant names for this lake are listed within Donald Orth's *Dictionary of Place Names*. Nunavakanukakslak Lake has an approximate surface area of 32 square miles and is located primarily within the Yukon Delta NWR. It is in six townships of the Seward Meridian:

T. 08 N., R. 74 W., Sec. 02 T. 08 N., R. 74 W., Sec. 03 T. 08 N., R. 74 W., Sec. 04 T. 08 N., R. 74 W., Sec. 04 T. 08 N., R. 74 W., Sec. 05 T. 08 N., R. 74 W., Sec. 06 T. 08 N., R. 75 W., Sec. 01 T. 09 N., R. 73 W., Sec. 34 T. 09 N., R. 73 W., Sec. 33 T. 09 N., R. 73 W., Sec. 31 T. 09 N., R. 73 W., Sec. 31 T. 09 N., R. 74 W., Sec. 35 T. 09 N., R. 74 W., Sec. 34 T. 09 N., R. 73 W., Sec. 27	T. 09 N., R. 74 W., Sec. 24 T. 09 N., R. 74 W., Sec. 23 T. 09 N., R. 73 W., Sec. 17 T. 09 N., R. 73 W., Sec. 17 T. 09 N., R. 73 W., Sec. 18 T. 09 N., R. 74 W., Sec. 13 T. 09 N., R. 74 W., Sec. 14 T. 09 N., R. 74 W., Sec. 15 T. 09 N., R. 73 W., Sec. 08 T. 09 N., R. 73 W., Sec. 07 T. 09 N., R. 74 W., Sec. 12 T. 09 N., R. 74 W., Sec. 11 T. 09 N., R. 74 W., Sec. 10 T. 09 N., R. 73 W., Sec. 06 T. 09 N., R. 74 W., Sec. 01	 T. 10 N., R. 73 W., Sec. 29 T. 10 N., R. 73 W., Sec. 30 T. 10 N., R. 74 W., Sec. 25 T. 10 N., R. 74 W., Sec. 26 T. 10 N., R. 74 W., Sec. 27 T. 10 N., R. 74 W., Sec. 27 T. 10 N., R. 74 W., Sec. 28 T. 10 N., R. 74 W., Sec. 29 T. 10 N., R. 74 W., Sec. 29 T. 10 N., R. 74 W., Sec. 21 T. 10 N., R. 74 W., Sec. 21 T. 10 N., R. 74 W., Sec. 20 T. 10 N., R. 74 W., Sec. 13
T. 09 N., R. 73 W., Sec. 27	T. 09 N., R. 74 W., Sec. 01	T. 10 N., R. 74 W., Sec. 12
T. 09 N., R. 73 W., Sec. 28	T. 09 N., R. 74 W., Sec. 02	T. 10 N., R. 74 W., Sec. 14
T. 09 N., R. 73 W., Sec. 29	T. 09 N., R. 74 W., Sec. 03	T. 10 N., R. 74 W., Sec. 15
T. 09 N., R. 73 W., Sec. 30	T. 10 N., R. 73 W., Sec. 33	T. 10 N., R. 74 W., Sec. 16
T. 09 N., R. 74 W., Sec. 25	T. 10 N., R. 73 W., Sec. 32	T. 10 N., R. 74 W., Sec. 17
T. 09 N., R. 74 W., Sec. 26	T. 10 N., R. 73 W., Sec. 31	T. 10 N., R. 74 W., Sec. 11
T. 09 N., R. 74 W., Sec. 27	T. 10 N., R. 74 W., Sec. 36	T. 10 N., R. 74 W., Sec. 10
T. 09 N., R. 73 W., Sec. 21	T. 10 N., R. 74 W., Sec. 35	T. 10 N., R. 74 W., Sec. 02
T. 09 N., R. 73 W., Sec. 20	T. 10 N., R. 74 W., Sec. 34	T. 10 N., R. 74 W., Sec. 03
T. 09 N., R. 73 W., Sec. 19	T. 10 N., R. 74 W., Sec. 33	T. 11 N., R. 74 W., Sec. 35

Unnamed Lake #1

Unnamed Lake #1 is approximately 3.1 square miles and is within one township:

T. 10 N., R. 75 W., Sec. 35	T. 10 N., R. 75 W., Sec. 27	T. 10 N., R. 75 W., Sec. 22
T. 10 N., R. 75 W., Sec. 34	T. 10 N., R. 75 W., Sec. 28	T. 10 N., R. 75 W., Sec. 21
T. 10 N., R. 75 W., Sec. 25	T. 10 N., R. 75 W., Sec. 24	T. 10 N., R. 75 W., Sec. 14
T. 10 N., R. 75 W., Sec. 26	T. 10 N., R. 75 W., Sec. 23	

Unnamed Lake #2

Unnamed Lake #2 is approximately 2.9 square miles and is within three townships:

T. 09 N., R. 75 W., Sec. 01	T. 10 N., R. 74 W., Sec. 29	T. 10 N., R. 74 W., Sec. 19
T. 10 N., R. 74 W., Sec. 32	T. 10 N., R. 74 W., Sec. 30	T. 10 N., R. 75 W., Sec. 24
T. 10 N., R. 74 W., Sec. 31	T. 10 N., R. 75 W., Sec. 25	
T. 10 N., R. 75 W., Sec. 36	T. 10 N., R. 74 W., Sec. 20	

II. Land Status

The Johnson River System is bounded by federal lands, Native village and regional corporation lands, and Native allotment lands. The majority of the upper three-quarters of the river flow through federal lands that are designated as the Yukon Delta NWR.

In 1909 a federal withdrawal of lands within the present day Yukon Delta NWR created a preserve and breeding ground for birds. The federal government continued to add lands to the preserve through 1961. In 1980, under the Alaska National Interest Lands Conservation Act (ANILCA, PL 96-487), the existing preserve was expanded and transferred to the federal refuge system creating the Yukon Delta NWR.⁷ The expanded withdrawal included the Johnson River System. Title to the refuge lands is held by the United States. The United States Fish and Wildlife Service (USF&WS) is the manager of these lands.

The Alaska Native Claims Settlement Act (ANCSA) was signed into law on December 18, 1971. The law established 13 Native regional corporations and over 200 Native village corporations. The village corporations and 12 of the regional corporations were entitled to the conveyance of over 44 million acres of land in Alaska to be distributed among these corporations based on populations and other established principles. The 13th Native Corporation was not entitled to land conveyances as it was formed for Alaska Natives who were not residents of the State of Alaska. For the village-conveyed lands, the village corporations are entitled to the surface estate and the regional corporations are entitled to the subsurface estates. Calista is the regional corporation in the Johnson River area. Six village corporations currently have been conveyed lands within the Johnson River System. Atmautluak Limited is the ANCSA village corporation for the village of Kasigluk. Nunapitchuk Limited is the ANCSA village corporation for the village of Nunapitchuk. Napakiak Corporation is the ANCSA village corporation for the village of Napakiak. Ohog, Incorporated is the ANCSA village corporation for the village of Napakiak.

The Kuskokwim Corporation, successor in interest to Upper Kalskag, Inc., is the ANCSA corporation for Upper and Lower Kalskag.

The Alaska Native Allotment Act of 1906 permitted individual Alaska Natives to acquire title to up to 160 acres of land. The Act was repealed in 1971 with the passage of ANCSA. A savings clause preserved allotment applications still pending as of the effective date of ANCSA on December 18, 1971.⁸ However, a number of Native allotment applications collected by Rural CAP in the 1970s were lost and never processed. Those affected by this event petitioned to a Federal court under Fanny Barr v. the United States. Under the court settlement, individuals were allowed to submit new applications past the original ANCSA deadline. Fifty-six Native allotments were reviewed for this report. Out of the total of 103 Native allotments located along the main stream of the Johnson River, only those along the middle and upper Johnson River System were reviewed. Native allotments along the lower Johnson River, which flows through lands predominately belonging to Native village corporations, were not reviewed because travel along this portion of the river is already well documented within BLM navigability reports.

Upper Johnson River (river miles 150 to 240) and its headwaters

Arhymot Lake, the headwaters of the Johnson River, is surrounded by the Yukon Delta NWR land, lands conveyed to The Kuskokwim Corporation, and Native allotments (Figure 3, page 12). Uplands on the west, south, and east sides of the lake have been patented to The Kuskokwim Corporation under Patent No. 50-2005-0435 for the surface rights and to Calista Corporation, under Patent No. 50-2005-0436 for the subsurface rights. These lands contain seven Native allotments. Uplands within the Yukon Delta NWR refuge are along the northwest shore of the lake.

The Arhymot Lake inlet stream is similarly situated within a mixture of federal, Native village and Native allotment land. From its source in an unnamed lake in Secs. 22, 26, and 27, T. 19 N., R. 61 W., SM, the stream flows south through Yukon Delta NWR land. Crossing from Sec. 26 to Secs. 34 and 35, the stream crosses refuge lands over to patented Native village corporation lands (Patent No. 50-2005-0435), then back to refuge lands. The inlet then enters a Native allotment FF-017385A in Sec. 34, T. 19 N., R. 61 W., SM. The inlet continues south from Sec. 3 into Sec. 2, T. 18 N., R. 61 W., SM, which is primarily composed of The Kuskokwim Corporation lands. The stream empties into Arhymot Lake close to Native allotment FF-015589 in Sec. 11, T. 18 N., R. 61 W., SM, in an area of Native village land patented to The Kuskokwim Corporation.

The majority of the upper Johnson River flows through federal lands designated as the Yukon Delta NWR. From its outlet in Arhymot Lake downriver through Sec. 23, T. 17 N., R. 63 W. SM (approximate river mile 222.75), the river flows in and out of the Yukon Delta NWR and lands conveyed to The Kuskokwim Corporation. Lands abutting the river in this area were selected in the 1970s and The Kuskokwim Corporation was granted land patents to the lands in 2005 (50-2005-0435) and 2008 (50-2008-0432). After leaving lands of The Kuskokwim Corporation around river mile 223, the upper Johnson River flows through the Yukon Delta NWR and Native allotments. There are 30 Native allotments located along the upper Johnson

River upstream of river mile 150, including allotments along Arhymot Lake and its inlet stream. All of the Native allotments have been patented (Figure 3).

Four ANCSA 17(b) easements have been reserved along the Paimiut Portage, which utilizes the Arhymot Lake, its inlet stream, and part of the upper Johnson River. A 50-ft trail easement from Mud Creek to Crooked Creek (4 C5) and two 1-acre site easements, one at each end of the Mud Creek trail (4a and b C5), provide public access to the two main portages between the Yukon and Kuskokwim rivers, the Paimiut and Yukon Kuskokwim (Y-K) Portages. A winter trail easement (2 C3, D1, D9) between Upper Kalskag and the southern shore of Arhymot Lake provides a separate winter route to the Paimiut Portage.

Middle Johnson River (river miles 62 to 150)

The majority of the middle Johnson River flows through lands within the Yukon Delta NWR (Figure 4, page 13). Within Secs. 32, 29, 28, and 33, T. 16 N., R. 69 W., SM (river miles 132 to 137), the Johnson River flows through lands conveyed to Ohog, Incorporated. Though three whole sections show up on the MTP as being selected by Calista Corporation, only several small 14(h)(1) sites have been selected by Calista Corporation along the river in Secs. 2, 11, and 12, T. 15 N., R. 69 W., SM. There are 26 Native allotments located along the middle Johnson River between river miles 62 and 150, all of which have been patented. Lands abutting the river in this area were selected in the 1970s, and Ohog, Incorporated was granted a patent to the lands in 2007 (50-2007-0552).



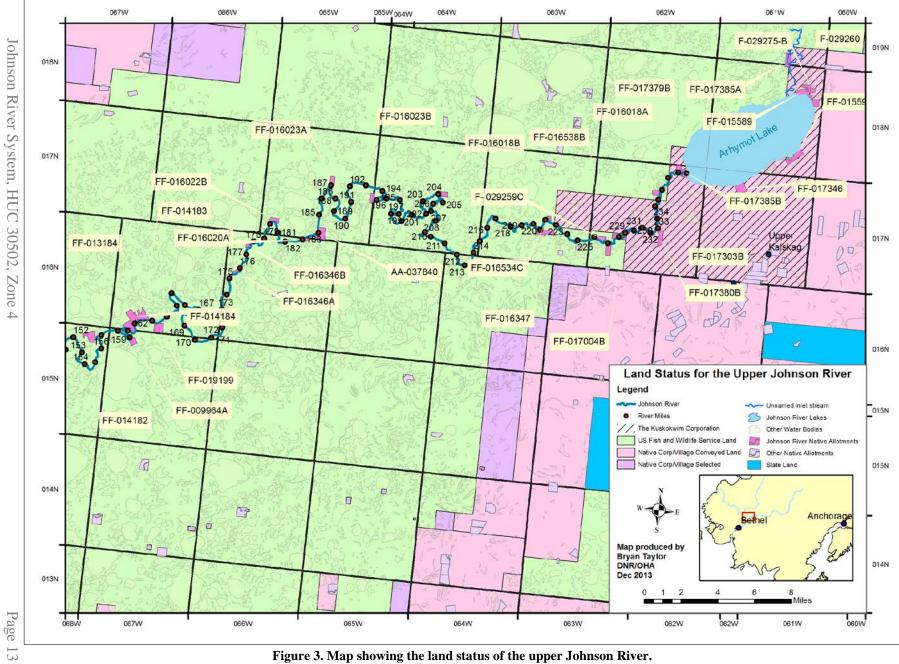




Figure 3. Map showing the land status of the upper Johnson River.

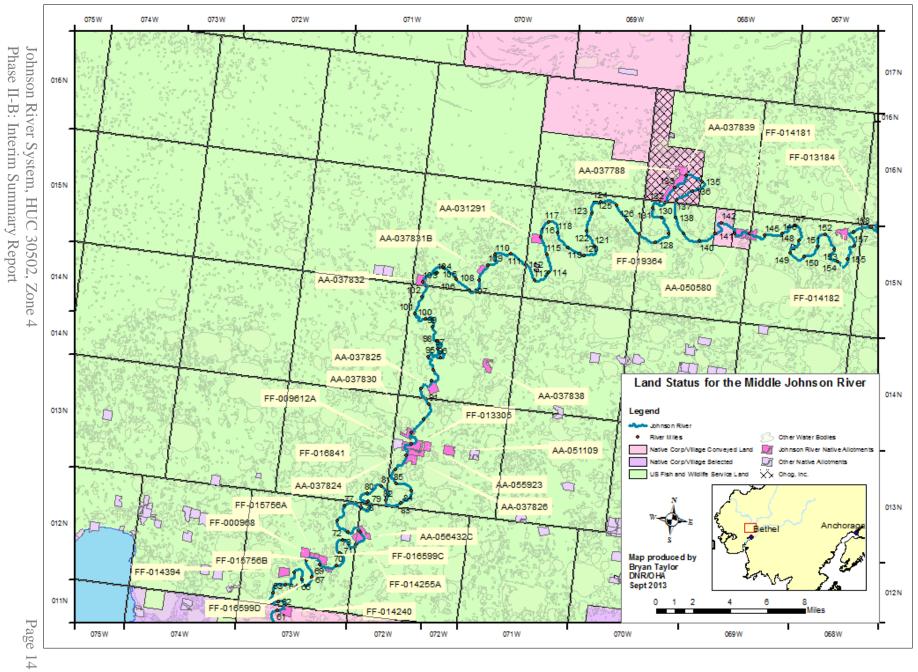


Figure 4. Map showing the land status for the middle Johnson River.

Lower Johnson River (river miles 0.0 to 62)

From river mile 61.5 as it enters Sec. 4, T. 11 N., R. 73 W., SM to its confluence with the Kuskokwim, the Johnson River flows through Native lands selected by Native villages under the ANCSA (Figure 5). Lands abutting this portion of the river were selected in the 1970s and conveyed to Nunapitchuk Ltd. (Interim Conveyance No. 485) in 1982, Kasigluk, Inc. (IC No. 595) in 1982 and (IC No. 678) in 1983, Atmautluak, Ltd. (IC No. 448) in 1981, and Napakiak Corporation (IC No. 616) in 1982. The subsurface estate of those lands was conveyed to Calista Corporation by IC No. 449 in 1981; No. 486, No. 596, and No. 617 in 1982; and No. 679 in 1983. These lands have not been patented (Figure 5).

Nunavakanukakslak Lake is mostly surrounded by Native lands interim conveyed to Nunapitchuk, Ltd. (IC No. 485) and Atmautluak, Ltd. (IC No. 448). Five sections on the eastern side of the lake in T. 10 N., R. 73 W., SM are under selection by Nunapitchuk Ltd. (F-14914). The northern tip of the lake (T. 11 N., R. 74 W., SM) is also under selection by Nunapitchuk Ltd. (F-14914). There are four Native allotments along the upper portion of Nunavakanukakslak Lake. There are seven Native allotments along the lower portion of the lake through which the Johnson River flows. All eleven allotments are located within Native village land selections and have been patented.

The eastern portion of Kayigyalik Lake is surrounded by lands which have been interim conveyed to Nunapitchuk, Ltd. (IC No. 485) and Kasigluk, Inc. (IC No. 595) in 1982.

Unnamed Lake #1 is surrounded by lands which have been interim conveyed to Kasigluk, Inc. (IC No. 595). There are two Native allotments bordering the lake.

On its eastern side, Unnamed Lake #2 is surrounded by lands which have been interim conveyed to Nunapitchuk, Ltd. (IC No. 485) and the western side of the lake is surrounded by lands interim conveyed to Kasigluk, Inc. (IC No. 595). There are four Native allotments bordering the lake.

Forty-seven Native allotments occur within riparian lands of the lower portion of the Johnson River System within the lands selected by Nunapitchuk Ltd., Kasigluk Corporation, Atmautluak Limited, and Napakiak Corporation.



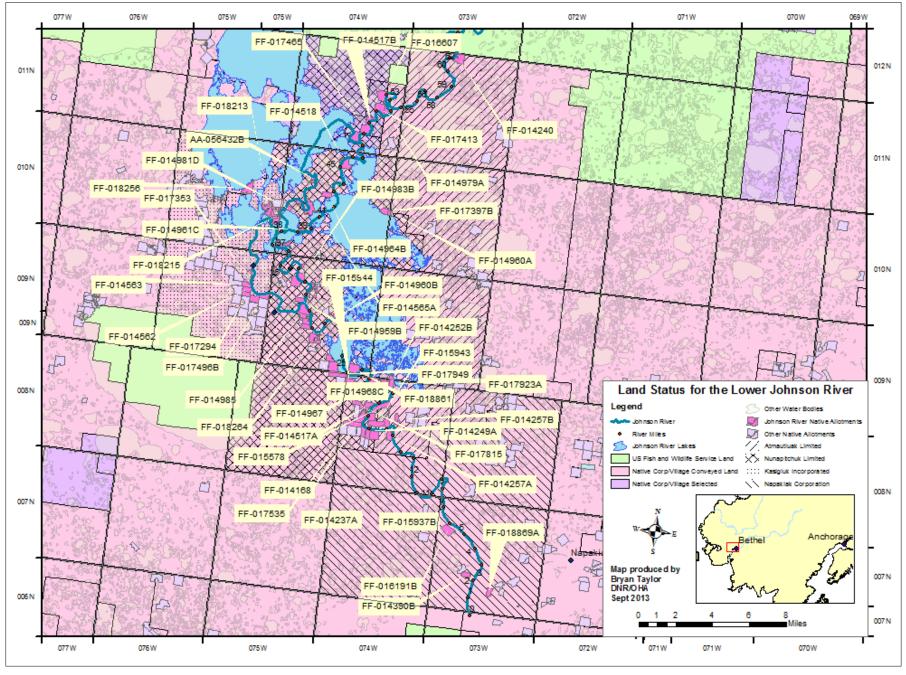




Figure 5. Map showing the land status for the lower Johnson River.

III. BLM Navigability Determinations

The BLM began actively seeking information on navigable waters in the Johnson River System in the 1970s in response to land selections by the State of Alaska under the Statehood Act and Native village and regional corporation selections made under the Alaska Native Claims Settlement Act (ANCSA). Corporations representing Atmautluak, Napakiak, Nunapitchuk, Kasigluk, Ohogamiut and Upper Kalskag (The Kuskokwim Corporation) selected ANCSA lands along the Johnson River.

During the conveyance process the BLM considered navigability for waters within the selection area for each village corporation. The BLM recognized the Johnson River as a well-traveled water route between villages early in the ANCSA conveyance process. An early 1975 BLM document characterized the river as a "boat and barge traffic route from the Kuskokwim River extending inland and North to several villages."⁹ (Attachment 1)

Napakiak Selection Area

• River miles 0.0 to 13

Near its mouth at the Kuskokwim, the Johnson River crosses the selection area for the village of Napakiak (Figure 5, page 14). A BLM Easement and Navigability Task Force met on January 15, 1976 to consider navigability and easements for selections by the village. The Task Force considered the Johnson River navigable "by reason of travel, trade and commerce."¹⁰ (Attachment 4) In the final easements memorandum for Napakiak village selections on January 25, 1982, the Johnson River throughout the Napakiak selection area was determined navigable "due to present and historic uses in connection with travel, trade and commerce."¹¹ (Attachment 6)

Consistent with its navigability determinations for Napakiak easements, the BLM excluded the river in its Decision on lands to be conveyed to Napakiak dated March 31, 1982.¹² (Attachment 7) The Napakiak lands were conveyed in IC Nos. 616 and 617 on December 29, 1982.¹³ (Attachment 8) These two ICs excluded submerged lands beneath navigable waters which were shown on attached maps. The IC maps show the Johnson River to be navigable from its mouth through Sec. 23, T. 9 N., R. 74 W., SM, and excluded the river from the Napakiak conveyance area. The uppermost reach of the Johnson River excluded from the Napakiak conveyance area is located at river mile 13, up through Sec. 26, T. 8 N., R. 74 W., SM.

Atmautluak Selection Area

- River miles 13 to 16.5, 19 to 21, 51.5 to 61.5
- Nunavakanukakslak Lake

In the fall of 1975, the BLM planned to determine the river navigable from the Kuskokwim through "Nunavakanukslak Lake."¹⁴ (Attachment 2) The name of this lake may have been misspelled since USGS maps show only a Nunavakanukakslak Lake in this vicinity. In a navigability field report in November 1975, the river was estimated to be 150 miles long, 20 feet Johnson River System, HUC 30502, Zone 4 Page 17 Phase II-B: Interim Summary Report

deep and 1,000 feet wide, and navigable for barges to the village of Kasigluk.¹⁵ (Attachment 3) On January 15 1976, a BLM employee noted that the "Johnson River is navig[able] to Kasigluk," but that the "lake complex north of Atmautluak [was] not navig[able]."¹⁶ (Attachment 10) The lake complex north of Atmautluak includes part of Nunavakanukakslak Lake.

A BLM Easement Task Force recommended the Johnson River as navigable within Atmautluak's selection area on May 7, 1976, noting that the Johnson River "is one of the most commonly used travel routes for general travel and recreation in the area."¹⁷ (Attachment 13) In a Final Easements Memorandum for lands selected by the village of Atmautluak drafted on May 28, 1981, the BLM considered the Johnson River navigable through the selection area (Sec. 4, T. 11 N., R. 73 W. SM) at approximately river mile 61.5, as well as several sloughs between the Johnson and Pikmiktalik rivers.¹⁸ (Attachment 28) These sloughs are addressed in OHA's navigability report for the Pikmiktalik River system.

The BLM issued a Decision on the Atmautluak land selections on September 14, 1981.¹⁹ (Attachment 29) The maps attached to the decision show the Johnson River and its interconnecting sloughs to be navigable throughout the Atmautluak conveyance area (through Sec. 31, T. 9 N., R. 73 W., SM). The BLM conveyed these lands to Atmautluak, Ltd. and Calista Corporation in IC Nos. 448 and 449 on November 20, 1981.²⁰ (Attachment 30) The conveyance stated that water bodies, including the Johnson River, were determined navigable "in connection with travel, trade and commerce." The maps attached to IC Nos. 448 and 449 show the Johnson River navigable and exclude it from the Atmautluak conveyance area.

The State of Alaska informed the Department of the Interior on August 27, 1992 of its intent to file quiet title claim to waters the BLM had determined navigable, including the Johnson River up to the villages of Nunapitchuk and Atmautluak.²¹ (Attachment 48) Though Atmautluak is on the Pikmiktalik River and not the Johnson River, it is adjacent to Nunavakanukakslak Lake and can be accessed by the Johnson River via the lake.

Nunapitchuk Selection Area

- River miles 21 to 53, including North Fork, East and West Channels, miles 1-3 of the West Fork
- Unnamed Lake #2
- Nunavakanukakslak Lake

On January 27, 1976, a BLM Easement Task Force recommended the Johnson River as "navigable by reason of travel, trade and commerce" from its mouth upstream to Nunapitchuk and Kasigluk. BLM staff also recommended a 25-foot streamside easement on the Johnson River in the Nunapitchuk selection area as "this is a highly significant river for recreation, substance [subsistence] and general travel in the area."²² The task force recommended as non-navigable the Johnson River north of Nunapitchuk and Kasigluk and the lake system through which the Johnson River passes north of the two villages. (Attachment 11) The BLM State Director concurred with these recommendations on October 12, 1976.²³

On September 2, 1976, a member of the Task Force wrote that the Johnson River was determined navigable and was excluded from village selections for Napakiak, Atmautluak, Kasigluk, and Nunapitchuk. Within the Nunapitchuk selection area, "it appears that the large bodies of water the Johnson River flows through, would be navigable also."²⁴ (Attachment 5)

On April 19, 1979, the BLM issued another Notice stating that it considered the Johnson River "navigable by reason of travel, trade and commerce" upstream from its mouth to the villages of Nunapitchuk and Kasigluk as well as the canal (slough) system between Nunapitchuk and Kasigluk." The notice reiterated that it considered "the lake system through which the Johnson River passes north of the two villages" to be non-navigable.²⁵ (Attachment 15) On April 30th however, a BLM employee wrote that the agency was planning to determine the Johnson River and related sloughs navigable throughout the Kasigluk, Nunapitchuk and Atmautluak selection areas, which extend at least 20 miles north of the villages (through Sec. 4, T. 11 N., R. 73 W., SM). "The Johnson River," the BLM employee added, "is used heavily for transportation between villages, to public lands, waterways and as a main access route to the Yukon River."²⁶ (Attachment 16) This was the first time that a BLM employee regarded the Johnson River north of the villages, as well as nearby Nunavakpak Lake, as navigable.

In a letter to Nunapitchuk Ltd., dated April 15, 1980, the BLM announced that it had provisionally determined two more interconnecting slough and lake systems along the Johnson River to be navigable. One was "between Nunavakanukakslak Lake and the Johnson River in Townships 9 and 10 N., R. 73 W., Seward Meridian." (It is likely that the letter meant to refer to Townships 9 and 10 N., R. 74 W., SM since those townships are within Nunapitchuk's selection area and contain lands adjacent to the Johnson River.) The other system added was "the interconnecting slough and lake system of the Johnson River located in Secs. 27 and 28, T. 9 N., R. 74 W., Seward Meridian" on the western side (right bank) of the Johnson River. The BLM advised that it intended to determine navigable Nunavakpak Lake and the unnamed slough and lake system flowing from Nunavakpak Lake to the abandoned site of Nunachuk.²⁷ These last two waterbodies are tributaries that feed Johnson River from the west. (Attachment 19)

In a Final Easements Memorandum for the village of Nunapitchuk issued on May 22, 1980, BLM staff recommended that the Johnson River, Nunavakanukakslak Lake and the slough between Kasigluk and Nunapitchuk be determined navigable "due to present and historic uses in connection with travel in trade and commerce" throughout the Nunapitchuk selection area. The staff also recommended part of Kayigyalik Lake in Secs. 4-8 and 18, T. 10 N., R. 74 W., SM, Unnamed Lake #2, the North Fork of the Johnson River, a section of the West Channel that flows from Kayigyalik Lake in Secs. 7-17, T. 10 N., R, 74 W., SM, a slough that flows from Nunavakanukakslak Lake in Sec. 28, T. 10 N., R. 74 W., SM through Secs. 32 and 33, T. 10 N., R. 74 W. to its confluence with the unnamed slough near the village of Nunapitchuk in Sec. 5, T. 9 N., R. 74 W., SM, Nunavakanukakslak Lake in Sec. 31, T. 10 N., R. 74 W., SM.²⁸ (Attachment 20) Each of these unnamed lakes and sloughs intersects with the Johnson River in the Nunapitchuk selection area.

The BLM issued a Decision on lands to be conveyed to the village of Nunapitchuk on July 25, 1980.²⁹ (Attachment 21) The Decision lists navigable waters within the selection area and

includes the Johnson River as navigable throughout the Nunapitchuk selection area. The upper extent of the Johnson River included in the selection area is within Sec. 14 in T. 11 N., R. 74 W., SM. The navigability maps also show the sloughs and lakes mentioned in the May 22, 1980 easements memorandum, including part of East Kayigyalik Lake, Unnamed Lake #2, and Nunavakanukakslak Lake to be navigable in the Nunapitchuk selection area.

The village of Nunapitchuk and the State of Alaska appealed the Nunapitchuk Decision to the Alaska Native Claims Appeal Board on September 5, 1980, claiming additional waters were navigable within the Nunapitchuk selection area. The appeal did not involve Johnson River proper, but nearby lakes and sloughs. Nunapitchuk claimed three water systems to be navigable.³⁰ (Attachment 22) The State claimed 15 lakes near the Johnson River to be navigable. It also pointed out that a portion of Nunavakanukakslak Lake that had previously been recommended by the BLM as navigable, had not been excluded in the Decision.³¹ The State erred in the legal description of the portion of the lake, describing it as in Sec. 13, T. 10 N., R. 75 W., SM. The description for the portion of Nunavakanukakslak Lake that had not been excluded from the Decision should have been Sec. 13, T. 10 N., R. 74 W., SM. (Attachment 23) However, the lake in that section was later segregated at the time of survey (see the MTP in Attachment 69). In a memorandum dated October 14, 1980, the BLM added one water system, an unnamed lake in Secs. 33 and 34, T. 10 N., R. 74 W., SM, and in Secs. 3, 4, 5, 9 and 10, T. 9 N., R. 74 W., SM, to the navigable waters excluded from the Nunapitchuk conveyance.³² (See Attachment 24)

In the spring of 1982, BLM's Division of Resources revised its navigability recommendations on the Nunapitchuk land selections. "Recent review of the recommendations made on navigability by the resource staff," the State Director wrote on March 10, 1982, "requires amendment of the original navigability findings." The agency recommended that two waterway systems be added to the list of navigable waters, one of which is part of the Johnson River System. An unnamed slough and lake system off the Johnson River in Secs. 16, 17, 20, 21, 28, and 29, T. 10 N., R. 74 W., SM, which encompasses the lower portions of the East and West Channels and portions of Nunavakanukakslak Lake and Unnamed Lake #2 were recommended as navigable.³³ (Attachment 25) The BLM formally determined these waterways to be navigable on March 23, 1982.³⁴ (Attachment 26)

The BLM conveyed lands to Nunapitchuk, Ltd. and Calista Corporation in IC Nos. 485 and 486, dated March 15, 1982. The conveyances identified water bodies that had been determined navigable "in connection with travel, trade and commerce."³⁵ (Attachment 27) The attached IC maps showed the Johnson River navigable and excluded it through the conveyance area through Sec. 3, T. 10 N., R. 74 W., SM.

Kasigluk Selection Area

- West Fork of the Johnson River
- Unnamed Lake #1
- Unnamed Lake #2

In a meeting with BLM staff on September 29, 1975, residents of the village of Kasigluk opposed requests for trail easements in the area, but concurred with the State's recommendations for navigable streams and lakes "since a large portion of their selection [area] is inundated."³⁶ (Attachment 9)

A BLM task force met on April 19, 1976, to consider easements and navigable waters in the Kasigluk selection area. The task force recommended a streamside easement along the Johnson River, "which is a heavily traveled route in this area," and "a 25-foot easement (both banks and the bed) along the stream draining Kayigyalik Lake toward the portage east [sic] toward Baird Inlet" that goes through Takslesluk Lake. The task force recommended the Johnson River and the canal (slough) system between Kasigluk and Nunapitchuk navigable "due to travel, trade and commerce."³⁷ (Attachment 12)

On November 4, 1976, the BLM issued a Notice of Proposed Easement Recommendations for the Village of Kasigluk in which the federal agency "determined that the Johnson River and the Slough (canal) System between Kasigluk and Nunapitchuk are navigable due to travel, trade and commerce."³⁸ In the document, the BLM recommended a 25-foot streamside easement along each bank and the bed of the Johnson River to "facilitate use of the river, which is a heavily travelled route in the area." The agency also recommended similar easements for the slough between Kasigluk and Nunapitchuk, and for the stream draining Kyigayalik [Kayigyalik] Lake toward the portage east through Takslesluk Lake, which is connected to the Johnson River. (Attachment 14)

The BLM issued a draft of the final easements for selections by the village of Kasigluk on October 21, 1980. The document identified the Johnson River and several sloughs navigable through the selection area "due to present and historic uses in connection with travel in trade and commerce." One was the slough system between Nunapitchuk and Kasigluk, which had been determined navigable in the Nunapitchuk Decision. The others included the slough from Kayigyalik Lake to Nunavakpak Lake and three slough and lake systems between Kayigyalik Lake and the Johnson River. The last three were identified as an unnamed slough and lake system and its interconnecting sloughs flowing from Kyigyalik [sic] Lake to its confluence with the Johnson River at Kasigluk encompassing part of Unnamed Lake #1 (in Secs. 15, 21, 22, 28, 33, and 34, T. 10 N., R. 75 W.), a part of the West Fork (Secs. 2, 3, and 11, T. 9 N., R. 75 W., SM), Unnamed Lake #1, and Unnamed Lake #2. (Attachment 31) In a later Final Easements Memorandum for Kasigluk's land selections, the BLM confirmed the navigability of the components mentioned in the October 21 draft document and identified the Johnson River. "including the left branch," to be a major waterway. The memorandum noted that "the Johnson River and the canal (slough) have been used extensively in the past for travel, trade and commerce and as a main access route to the Yukon River and to public lands."³⁹ (Attachment 32)

The BLM Decision on Kasigluk lands issued on March 2, 1982 included navigability maps showing the West Fork of the Johnson River navigable within the Kasigluk selection area through Sec. 24, T. 11 N., R. 75 W., SM. The maps also show as navigable the slough between Kasigluk and Nunapitchuk, and the slough systems from the Johnson River to Kayigyalik and Nunavakpak Lakes.⁴⁰ (Attachment 33) BLM issued IC No. 595 to Kasigluk Inc. and No. 596 to Calista Corporation on December 27, 1982. The conveyances determined the Johnson River and several other water bodies navigable "in connection with travel, trade and commerce" and excluded them from the Kasigluk conveyance area.⁴¹ (Attachment 34) The maps attached to the ICs show the Johnson River navigable through Sec. 24, T. 10 N., R. 75 W., SM and the major sloughs between it and Kayigyalik Lake navigable, but not Kayigyalik Lake. The lands conveyed were along the West Fork of the Johnson River in Tps. 9 and 10 N., R. 75 W., SM. The uppermost reach of the Johnson River excluded from the ICs is within Sec. 24, T. 10 N., R., 75 W., SM.

The BLM issued a Decision on February 15, 1983⁴² concerning Secs. 1 and 13, T. 9 N., R. 75 W., SM. (Attachment 35) The Decision determined the West Fork navigable in these two sections. IC Nos. 678 and 679, issued to Kasigluk Inc. and Calista Corporation on June 30, 1983, excluded these submerged lands from the conveyances. ⁴³ (Attachment 36)

Ohogamiut Selection Area

• River miles 132 to 137

The Johnson River flows through lands selected by the village of Ohogamiut within T. 16 N., R. 69 W., SM. On August 8, 1975, representatives from the BLM met with representatives of Ohog, Inc. at Russian Mission to discuss easements recommendations within the selections area. The Johnson River was not considered among the recommendations at this time. A memorandum summarizing the meeting noted that recommendations from the Alaska Division of Lands were received after the meeting and would be considered at a later time along with the other recommendations.⁴⁴ A BLM Easement Task Force met on January 8, 1976 to consider easements and navigable waters for the village of Ohogamiut. A summary of the meeting noted that the Johnson River was considered in the navigable waters discussion, but that "there was no history of use of the Johnson River for commerce in this area."⁴⁵ The only inland water body determined navigable at the meeting was the Yukon River and its interconnected slough systems. (Attachment 71 and Attachment 72)

These determinations were reiterated in a report dated September 2, 1976 on navigable waters within village selection areas. The navigability determinations within the report were based on "historical evidence, field investigation, and public testimony, all documented in the case files, and the Bureau's navigability guidelines."⁴⁶ The report listed navigable waters to be excluded from village selections. Though the Johnson River was listed as navigable for other selection areas, for the village of Ohogamiut only the Yukon River was listed, along with a note concerning the Johnson River which stated that it "was not considered navigable in this selection because of lack of information."⁴⁷ (Attachment 5)

On December 28, 1982, Robert D. Arnold, the BLM Assistant to the State Director for Conveyance Management, issued the Final Easements for the Village of Ohogamiut. The memorandum listed Arnold's decisions regarding final easements, major waterways, and navigability determinations within the selection area. The Johnson River was not listed as a major waterway. Only the Yukon River and its interconnecting sloughs were determined to be navigable. All other water bodies within the Ohogamiut selection area, including the Johnson River, were determined to be nonnavigable. (Attachment 73)

The BLM issued an Interim Conveyance to Ohog, Inc. on May 20, 1983. The navigability maps attached to the IC reflected the same navigability determinations as Arnold's memorandum. However, since the IC did not convey lands adjacent to the Johnson River, no determinations were made within the IC regarding its navigability within the selection area.

Jerry B. Lewis, acting BLM Chief of Navigability Section, issued a memorandum on Navigable Waters within ANCSA-Selected and Interim-Conveyed lands in the Marshall/Ohogamiut/ Russian Mission Project Area on March 23, 2004. The memorandum identified navigable waters within 44 townships on selected and IC'd lands. The memorandum cited two previous memos that identified navigable waters within Native allotments along the Johnson River. Citing a previous memo, the memorandum stated that the Johnson River is navigable in T. 15 N., R. 68 W., SM "according to the interview report in the memo dated 8/29/02. Appendix I of that memo states that there are no navigable waters; however, the report was done only for the Native Allotment in that township and the river meanders the parcel."⁴⁸ In addition to this township, the Johnson River was found navigable within T. 15 N., R. 69 W., T. 16 N., R. 69 W., and T. 15 N., R. 70 W., SM. The water bodies were determined navigable due to travel, trade, and commerce. (Attachment 53)

On March 31, 2004, Denny Benson, BLM Group Manager for Realty, issued a memorandum on Final Easement and Major Waterway Recommendations for Ohog, Inc. for the Village of Ohogamiut. The memorandum made determinations of major waterways within selected lands, including lands adjacent to the Johnson River in T. 16 N., R. 69 W., SM. The Johnson River was included as a major waterway and was determined to "have significant use in [its] liquid state by watercraft for access to publicly owned lands or between communities."⁴⁹ The memorandum did not address navigability of the major waterways. (Attachment 86)

On June 30, 2007, Mark W. Fuller, the BLM Chief of Branch of Adjudication II, issued Patent No. 50-2007-0552 to Ohog, Incorporated. This document patented lands along the Johnson River in Secs. 28, 29, 32, and 33, T. 16 N., R. 69 W., SM. The Johnson River was excluded from patented lands as shown on the plats of survey. (Attachment 74)

Upper Kalskag Selection Area

- River miles 223, 229 to 236, 238 to 240
- Arhymot Lake and its inlet stream

The upper portion of Johnson River crosses the selection area for the village of Upper Kalskag. Up to the writing of the report, the BLM's considerations of navigability within the Upper

Kalskag selection area have been conducted using both the old and new GNIS naming conventions for the portion of the Johnson River upstream of its confluence with Crooked Creek in Sec. 22, T. 17 N., R. 63 W., SM. This report uses the new GNIS naming convention.^{iv} Arhymot Lake and its inlet are also adjacent to lands selected by Upper Kalskag.

The BLM has reviewed navigability in most of this area under the Johnson River's relationship to the historical Yukon-Kuskokwim (Y-K) Portage route. A BLM Easement and Navigability Task Force memorandum dated September 2, 1976, noted that the water route between the Kuskokwim and Yukon rivers known as the Y-K Portage, including the upper portion of Johnson River (named Crooked Creek in the memorandum), was navigable within the Upper Kalskag Village selection area. (Attachment 5)

According to the 1985 Kuskokwim Regional Report, the BLM proposed determining the nearby Y-K Portage navigable in 1975, but did not consider Arhymot Lake navigable until September 30, 1982.⁵⁰ The BLM had more information about travel, trade and commerce on the Y-K Portage than on the Paimiut Portage and Arhymot Lake in the early years of implementing ANCSA. According to the Kuskokwim Regional Report, the BLM determined those waters within the Y-K Portage navigable. This included a part of Johnson River between Mud Creek and Crooked Creek. The BLM did not evaluate the remaining portion of the Johnson River until it was considering the navigability of Arhymot Lake.

Initial discussions between the BLM and local residents concerned easements on lands surrounding Arhymot Lake. These lands were scheduled to be conveyed to The Kuskokwim Corporation on behalf of the village of Upper Kalskag (formerly called Kalskag). They were also of interest to Lower Kalskag, a few miles downriver on the Kuskokwim. The easements proposed included a trail from Upper Kalskag to the southern edge of Arhymot Lake and two trails that led around the lake on either side, and rejoined about five or six miles north of the lake. According to a BLM memo from 1975, local villagers used the west side of the trail for travel to the village of Paimiut on the Yukon River and the east side for travel to ice fishing locations.⁵¹ (Attachment 75) Upon learning from locals that trails north of the lake were not in frequent use, the BLM decided not to pursue any easements above the southern shore of Arhymot Lake.

On February 10, 1978, the BLM recommended two trail easements: one leading from Upper Kalskag to the southern shore of Arhymot Lake (2 C3 D1 C9) and another connecting Lower Kalskag to the Upper Kalskag trail (2a C3 D1 D9). (Attachment 76) This easement was a portion of the Paimiut Portage. In the discussion, the portage was recognized as having "a history of use by villagers, visitors, recreationists, and sportsmen for intervillage travel to Paimiute [sic], and as an access route to hunting, fishing, and trapping areas."⁵² The BLM also proposed a site easement on the southern shore of Arhymot Lake with a 25-ft. easement on the lake floor associated with this site (2b C3 D1 D9). The placement of an easement on the lake bed suggests that the Task Force did not consider the lake to be navigable at the time.

^{iv} See page 3 of this report for an overview of the name change. Throughout this section the new GNIS names will be used for the appropriate streams.

Reviewing these easements in 1980, the BLM decided to remove the site and lake bed easement on the southern shore of Arhymot Lake, stating "This easement is not considered necessary nor is the site desirable for a campsite."⁵³ (Attachment 77) The removal of this site easement may also be linked to discussions of the navigability of Arhymot Lake. Notes on a later draft of this easements memo show that the BLM considered upper Johnson River and Arhymot Lake to be navigable by this time. (Attachment 78)

The BLM held a meeting with affected parties on April 29-30, 1982 to finalize the easements for this area. At the meeting The Kuskokwim Corporation requested that the BLM also remove the trail easement between Upper Kalskag and Arhymot Lake. Speakers at this meeting stated that the lake was already accessible through boat travel up the Johnson River, making the trail easement duplicative. The State argued in favor of the trail, stating that it was used to haul fuel to Arhymot Lake. Local representatives also requested that the BLM determine Arhymot Lake and the Johnson River navigable, attesting to frequent use by "recreationists" and Native allotment owners, and indicating that the Paimiut Portage was an alternate route between the Yukon and Kuskokwim rivers.⁵⁴ The official meeting report, dated May 17, 1982, summarized many of these comments and concerns. (Attachment 79)

Following the meeting, BLM Realty Specialist Sherman Berg wrote "I recommend we modify our previous recommendations and include Arhymot Lake and that portion of Crooked Creek [Johnson River] from the S1/2 of Sec. 22, T. 17 N., R. 62 W., SM, to the lake as navigable." (Attachment 80) His report attested that "the system is utilized as an alternative access route between the Yukon and Kuskokwim rivers."⁵⁵

In August of 1982, despite objections by the State, the BLM State Director for ANCSA Conveyances limited the easement on the Upper Kalskag-Arhymot Lake trail to winter use only. This decision was prompted by consensus on the availability of navigable waters for summer access to Arhymot Lake.⁵⁶ The BLM also removed the easement for the trail between Lower and Upper Kalskag, which were already linked by road, and other trails in the area, explaining "alternate access to public land and resources can be gained via trail EIN 2 C3, D1, D9, navigable Crooked Creek [Johnson River], the Yukon-Kuskokwim Portage, and navigable Arhymot Lake.⁵⁷ (Attachment 81)

In the Final Easements Memo, released on August 23, 1982, the BLM officially determined Arhymot Lake and the Crooked Creek [Johnson River] navigable throughout the conveyance.⁵⁸ (Attachment 82) On September 30, 1982, the BLM released a Decision on lands to be conveyed to Upper Kalskag. The Decision determined Arhymot Lake and Johnson River navigable throughout the conveyance area. (Attachment 38) The maps attached to the Decision depicted Arhymot Lake and the Johnson River as navigable except for portions left in custody of the Yukon Delta NWR in Secs. 3 and 10, T. 17 N., R. 62 W., SM. The Decision did not determine the Arhymot Lake Inlet navigable, however, and the inlet was not shown as navigable on the maps and was therefore determined to be nonnavigable.⁵⁹

On September 30, 1983, the BLM submitted IC Nos. 749 and 750 granting surface and subsurface rights for Upper Kalskag lands to The Kuskokwim Corporation and Calista Corporation respectively.⁶⁰ (Attachment 40) Maps included in the conveyances showed the

Johnson River and Arhymot Lake excluded from conveyance because of navigability, but a portion of the inlet in Secs. 2 and 11, T. 18 N., R. 61 W., SM, was determined non-navigable and conveyed to the village corporations. After the inlet was surveyed, the BLM meandered and segregated the inlet from its mouth through Secs. 11, 2 and 35, in T. 19 N., R. 61 W., SM. The interconnecting sloughs in Secs. 35 and 36, T. 19 N., R. 61 W., SM, were not meandered.

The map attached to the BLM Decision for lands selected by Upper Kalskag, issued on September 30, 1982, shows 10 miles of the Johnson River from its confluence with Crooked Creek (Sec. 22, T. 17 N., R. 63 W., SM) upstream to Sec. 22, T. 17 N., R. 62 W., SM to be navigable.⁶¹ (Attachment 38) A BLM memorandum on navigable waters of the Kuskokwim region, dated November 8, 1984, determined the same 10-mile section of the Johnson River as navigable. The memorandum identified the 10-mile section of Johnson River as part of the Y-K Portage and concluded that the streams and lakes that made up the portage "were navigable for boats similar to those in commercial use in 1959."⁶² (Attachment 39)

Early BLM documents evaluating the upper Johnson River for navigability overlooked the upper portion of the river as a route of travel, trade and commerce to and from Bethel. The portion of the Johnson River beginning at the confluence of Crooked Creek (in Sec. 22, T. 17 N. R. 63 W., SM) and extending west is shown as being non-navigable in the Decision maps of September 30, 1982 (Attachment 38) and the BLM maps for IC No. 749 to Upper Kalskag and IC No. 750 to Calista Corporation, dated September 30, 1983.⁶³ (Attachment 40) This area of the river within T. 17 N., R. 63 W., SM is not within lands selected by Upper Kalskag and so no navigability determinations have been made through conveyance. Later navigability memos would declare this portion of the Johnson River to be navigable.

Another navigability memorandum issued on May 8, 1989 discussed the Johnson River within survey window 1834 for the Upper and Lower Kalskag land selection areas. The memorandum did not directly address the Johnson River between the mouth of Crooked Creek and Arhymot Lake in its consideration of the Johnson since it used the name "Crooked Creek" for this portion of the river. The memorandum, which only made determinations for water bodies where they are located in or along claims and Native allotments, did, however, address the Johnson River downstream of the mouth of Crooked Creek. Photo interpretation and physical characteristics of the river provided the basis for determining that portion of the river navigable. According to the memorandum:

Below the mouth of Crooked Creek, the Johnson appears to be open and less sinuous than Crooked Creek. Upstream [part of the Y-K Portage that had already been determined navigable] it is more crooked than Crooked Creek.... The determination of 1982 that it is navigable above Crooked Creek is affirmed. The stream is found navigable downstream of the mouth of Crooked Creek on the basis of photographs. Its character is similar but less sinuous than the two streams are above that point.⁶⁴ (Attachment 44)

Also in the May 8, 1989 memo, the BLM identified Arhymot Lake as meaderable because it was larger than 50 acres. As such, the lake did not require a navigability determination and was excluded from conveyance.⁶⁵ The upper Johnson River was noted in Table 1 within T. 17 N.,

R. 62 W., SM as previously having been excluded in ICs and TAs (see Table 1, No. 4). Part of the inlet to Arhymot Lake was identified as navigable, described as the "stream feeding into Arhymot Lake (mouth in Sec. 10), two left bank tributaries in Secs. 34 and 35, T. 19 N., R. 61 W., SM, and Sec. 2, T. 18 N., R. 61 W., SM within F-17385 Parcel A."⁶⁶ This table listed water bodies determined navigable through photo interpretation. The memo repeated that the "stream emptying into Arhymot Lake and its left bank tributary in Native allotment F-17385-A in Sec. 2" of Tps. 18 and 19 N., R. 61 W., SM, were navigable under a separate table that listed waterbodies crossing Native allotments (Table 4, items 7 and 8). This determination was based on evidence of physical ability to reach the allotment, ascertained through photo interpretation, and not from information on allotment use. The upper Johnson River (called Crooked Creek in the memo), which was also listed within this table, was determined navigable within T. 17 N., R. 62 W., and Secs. 22 and 23, T. 17 N., R 63 W., SM (Table 4, items 12 and 17).

On August 16, 1993, the BLM corrected earlier IC No. 750 to the Calista Corporation with corrected IC No. 1567. The amended conveyance fixed an earlier typographical error and excluded waters meanderable according to the *Manual of Surveying Instructions* from the lands charged against the corporation's entitlement. (Attachment 40) According to the *Manual*, all navigable waters (including tidal), streams 3 chains (or 198-ft.) wide and lakes 50 acres or larger in size should automatically be meandered, or segregated at the mean high water line, from the lands surrounding that waterbody. The submerged lands under meandered waters, the document stated, "will be identified at the time of survey." ⁶⁷

The BLM's Navigability Section Chief issued a Navigable Waters Memo on January 15, 2004, examining ANCSA lands and summarizing previous navigability determinations in the Kalskag selection area.⁶⁸ (Attachment 83) The 2004 memo confirmed that the Johnson River had been determined navigable in T. 17 N., R. 63 W., SM, and that Arhymot Lake Inlet had been determined non-navigable in Sec. 35, T. 19 N., R. 61 W., SM and T 18 N., R. 61 W., SM. No mention was made in the 2004 memo that the inlet within the Native allotment in Sec. 34, T. 19 N., R. 61 W., SM was determined navigable in 1989.

On May 4, 2005, the BLM posted an "Intent to Issue Patent" notice on previously conveyed lands.⁶⁹ (Attachment 84) The draft patents reflected a few changes to the descriptions of earlier conveyances due to the new policy of excluding submerged lands under meanderable waters, and a few changes to the acreage as a result of U.S. Surveys. The draft patents made no changes to the navigability determinations issued at the time of conveyance. Despite the May 8, 1989 navigability determination on the Native allotment on Arhymot Lake inlet stream in Sec. 34, T. 19 N., R. 61 W., SM, the draft patents did not exclude this stream as a navigable water body.

Subsequent Patent Nos. 50-2005-0435 and 50-2005-0436, outlining the surface and subsurface ownership of 59,314 acres in the Kalskag region, were issued on September 9, 2005. (Attachment 85) The patents did not include title to the Arhymot Lake inlet stream, however, because the inlet was meandered and segregated from the uplands on survey plats within the IC'd area (Secs. 2 and 11, T. 18 N., R. 61 W., SM, and Sec. 35, T. 19 N., R. 61 W., SM) and within Native allotment FF-17385-A. (Attachment 86) Since the inlet is not larger than 3 chains wide, it is unclear why it was segregated from the uplands.

The State of Alaska filed a recordable disclaimer of interest (RDI) application on March 10, 2006 for Crooked Creek and the portion of the Johnson River that is associated with the Yukon-Kuskokwim Portage (serial number AA-086377). The State's application included the northsouth stream in its entirety and the east-west stream from its confluence with the north-south stream to a portage to one of the Yukon-Kuskokwim portage lakes in Sec. 22, T. 17 N., R. 62 W., SM. In the application, the State referred to the streams with the names on USGS maps, with the north-south stream labeled as Johnson River and the east-west stream labeled as Crooked Creek. Jack Frost, a BLM Navigable Waters Specialist, released a memorandum on August 26, 2010 addressing federal interest in the lands underlying the water bodies within the Yukon-Kuskokwim Portage, which included the State's RDI application for a portion of the Johnson River and Crooked Creek. The memorandum recommended that the State's application be approved, which it was in a Decision issued by Julia Dougan, BLM State Director, on September 2, 2010.⁷⁰ (Attachment 69) The RDI was recorded on December 20, 2012 (2012-001684-0) containing a legal description of Crooked Creek and Johnson River. The legal description includes the submerged lands under the water body in Secs. 20-22, 29 and 30, T. 17 N., R. 63 W., SM and Secs. 22, 23, 25, and 26, T. 17 N., R. 63 W., SM. Labeled as "Crooked Creek" in the RDI, this water body is included as part of the Johnson River in this report.

Navigability determinations affecting multiple village selection areas

In January 1980, Martin Karstetter, of the BLM's Division of Resources, recommended that the Johnson River was navigable due to a history of travel, trade and commerce through the Atmautluak, Kasigluk and Nunapitchuk selection areas. The division also identified a number of other waterways in the area that appeared to be navigable in the belief that the Johnson River to the Russian Mission summer portage (Y-K Portage) was a practicable route of water travel and recommended that "all sloughs, lakes and streams that interconnect the navigable waterbodies within the selection areas be determined navigable." Waterways and interconnecting sloughs that drained into the Johnson River that were recommended as navigable included: 1) Johnson River through the selection areas (river miles 0 to 61.5); 2) Nunavakanukakslak Lake; 3) Kayigyalik Lake; 4) Unnamed Lake #1; 5) Unnamed Lake #2. A supplement to the memorandum additionally recommended the eastern portion of Kayigyalik Lake "be determined navigable as it is an integral part of an interconnecting slough system between navigable waterbodies."⁷¹ (Attachment 17)

BLM staff met with representatives from Atmautluak and Nunapitchuk on March 27, 1980 in Nunapitchuk to discuss navigable waters and easements within selected lands. The residents told BLM officials that they considered Nunavakanukakslak Lake and several interconnecting sloughs branching off the Johnson River to be navigable. A BLM realty specialist analyzed the data and recommended these water bodies be considered navigable within the Nunapitchuk, Kasigluk and Atmautluak selection areas because villagers travel these water bodies to semi-permanent seasonal camps on a regular basis, the same as traffic on waterways between villages.⁷² (Attachment 18)

On September 2, 1983, the BLM determined the Johnson River navigable where it passes by two BIA school sites. The school sites are at Nunapitchuk (U.S. Survey No. 4049) on the Johnson River and at Kasigluk (U.S. Survey No. 4048) on Clam Slough of the Johnson River.⁷³ (Attachment 37)

A BLM navigability memorandum dated May 8, 1989, examined the portion of the Johnson River that crossed survey window 1836 (Kasigluk, Nunapitchuk, Atmautluak, Bethel region). The memorandum specified that water bodies were navigable "if, at the time of Statehood, they were navigable for crafts larger than a one-person kayak."⁷⁴ (Attachment 43) Table 1 of the memorandum was a partial list of water bodies larger than 198 feet wide that were meanderable by reason of size, to eliminate those water bodies from the ones that needed navigability determinations. Water bodies in Table 1 included the North Fork of the Johnson River (the branch passing through Nunapitchuk north to a lake and slough system) which was determined navigable from its outflow from Unnamed Lake #2 in Sec. 31, T. 10 N., R. 74 W., SM, to its confluence with the West Fork of the Johnson River in Secs. 16 and 17, T. 9 N., R. 74 W., SM. Table 2 of the memorandum described portions of the Johnson River that had been excluded from ICs as navigable, including the river through Sec. 36, T. 11 N., R. 74 W., SM; the North Fork of the Johnson River passing through Nunapitchuk; the main slough heading in Nunavakanukakslak Lake and entering the North Fork of the Johnson River in Sec. 5, T. 9 N., R. 74 W., SM; the slough heading in Kayigyalik Lake and entering the Johnson River at Kasigluk; the slough from Nunavakpak Lake connecting to the Kayigyalik Lake slough in Sec. 22, T. 10 N., R. 75 W., SM; a lake effluent in Sec. 27, T. 9 N., R. 74 W., SM; and a small tributary draining a lake at the northern edge of the selection areas in Sec. 25, T. 11 N., R. 74 W., SM.

In the 1990s, the BLM and Native corporations in the Y-K Delta exchanged letters about applying a new BLM policy that non-tidal waters navigable in boats larger than a one-person kayak would be determined navigable by the BLM.⁷⁵ (Attachment 45) On September 21, 1990, Calista requested that no new determinations based on the one-man-kayak standard be made for water bodies on lands for which they owned the surface or subsurface rights.⁷⁶ (Attachment 46) Despite requests from Nunapitchuk, Ltd., and The Kuskokwim Corporation (representing Upper Kalskag among other villages) to modify prior navigability determinations, the BLM honored Calista Regional Corporation's request to refrain from applying the new standard to interim conveyed lands.⁷⁷ (Attachment 47)

The most recent summation of parts of the Johnson River determined navigable was issued in a BLM memorandum dated March 16, 2007, that identified navigable waters in 66 townships within group survey Nos. 140, 268 and 284. This memorandum listed portions of the Johnson River that had been determined navigable from the mouth of the river upstream through Sec. 24, T. 11 N., R. 74 W., SM. The memorandum cited the May 28, 1981 Decision that the river was navigable through the Atmautluak selection area (upstream to river mile 61.5, through Sec. 4, T. 11 N., R. 73 W., SM). The memorandum does not refer to the Johnson River as navigable in T. 10 N., R. 74 W., SM, although it captures the determinations upstream and downstream from this. The memorandum identified Nunavakanukakslak and Kayigyalik lakes as navigable, along with a number of sloughs and lake systems linking those two lakes with the Johnson River. The memorandum does not refer to the portion of the river in the Upper Kalskag selection area, which was outside of the survey focus area.⁷⁸ (Attachment 54)

The BLM issued easement notices for Kasigluk on March 27, 2007,⁷⁹ (Attachment 55) Atmautluak on August 6, 2007,⁸⁰ (Attachment 56) and Nunapitchuk on August 23, 2007 (Attachment 57).⁸¹ The notices for Atmautluak and Nunapitchuk list the Johnson River as a major waterway, but the Kasigluk memo does not. These determinations do not directly bear on navigability, but generally imply usage of the water bodies.

Navigability determinations affecting Native allotments

On December 16, 1988, the BLM determined the Johnson River navigable in Native allotments AA-50580 (river mile 143), F-14181 (river mile 144), and AA-31291 (river mile 116).⁸² This navigability determination is cited in a 1990 BLM document⁸³ (Attachment 41) and a 2002 BLM document,⁸⁴ (Attachment 42). The 1988 navigability document could not be found in BLM ANCSA, Native Allotment and Navigability Section files.

Table 3 of the May 8, 1989 navigability memorandum for survey window 1836 used photo interpretation to determine the Johnson River and its interconnecting sloughs navigable upstream through T. 11 N., R. 73 W., SM. (Attachment 43) Table 4, listing navigable waters passing through Native allotments and field examined historical sites, identified as navigable the waters of the slough between Nunapitchuk and Nunavakanukakslak Lake that passed through Native allotment F-14961-C in Sec. 29, T. 10 N., R. 74 W., SM. This slough is part of the Johnson River system.

The BLM determined the Johnson River navigable on June 13, 1990 in Native allotments AA-11481 (river mile 144) and AA-50580 (river mile 143) in T. 15 N., R. 69 W., SM, and Native allotment AA-31291 (river mile 116), and regional historic village sites AA-11643 ("Awuiyoqlleq," river mile 118.5) and AA-11474 ("Makitaq," river mile 115) in T. 15 N., R. 70 W., SM, in survey window 2028. The criterion used to determine navigability was "watercraft customary at statehood included boats with a load capacity of about a thousand pounds.⁸⁵ (Attachment 41) The June 13, 1990 memorandum noted that "the BLM has determined sections of the river upstream of these claims navigable. As these [sic] are no portages or obstructions downstream, it follows that the river is navigable here as well."

On June 29, 2000, a navigability report identified a Native allotment along a section of the Johnson River that had not yet been conveyed. The Native allotment was F-16018 (river mile 205.5), located downstream from the river's confluence with Crooked Creek, in Sec. 15, T. 17 N., R. 64 W., SM. The memo recommended the Johnson River be determined navigable through the allotment and stated that this part of the Johnson River "was susceptible for use as a route for travel, trade and commerce."⁸⁶ (Attachment 49) In a navigability memo dated July 5, 2000, the BLM determined the Johnson River to be navigable through this Native allotment and reaffirmed the navigability of the portion of the Johnson River on the Y-K Portage.⁸⁷ (Attachment 50)

A BLM navigability report, dated June 5, 2002, recommended that the Johnson River be determined navigable within Native allotment AA-37832 (river mile 103) in Sec. 31, T. 15 N., R. 71 W., SM and Native allotment F-16023-A (river mile 187) in Sec. 15, T. 17 N., R. 65 W.,

SM. The June 5 report noted that aerial photography and telephone interviews with local villagers with experience boating the river indicated that from spring to fall, the Johnson River is between 50 to 65 feet wide, 4 to 7 feet in deep, is free of any obstructions and maintains a slow current. "The physical characteristics of the river, previous BLM navigability determinations, current and historic use by villagers upstream and downstream of the Native allotment claims indicate that Johnson River is susceptible for use as a route for travel, trade and commerce."⁸⁸ (Attachment 42)

Another BLM navigability report, also dated June 5, 2002, recommended that a left bank tributary of Johnson River, known locally as Tunuirgun Creek (river mile 87.5), be determined navigable within Native allotment AA-51109, which is located in Secs. 15 and 16, T. 13 N., R. 71 W., SM. The navigability report concluded that use of the left bank tributary by residents of Akiachak for hunting, combined with the physical characteristics of the river, "indicate the river is susceptible for use as a route for travel trade and commerce."⁸⁹ (Attachment 51)

On August 29, 2002, the BLM issued another navigable waters memorandum that determined the Johnson River navigable through six Native allotments. The memorandum reaffirmed that the left bank of the Johnson River was also determined navigable in T. 13 N., R. 71 W., SM (near river mile 87.5). The allotments included the two mentioned in the June 5, 2002 memo (AA-37832 and F-16023-A), along with allotments AA-37824, AA-55923, AA-51109, and FF-13305 on Tunuirgun Creek in T. 13 N., R. 71 W., SM.⁹⁰ (Attachment 52) With the allotments in this determination, a cumulative total of waters in ten Native allotments had been determined navigable on the Johnson River System. They extended over the middle and upper portions of the Johnson River, from just above the confluence with Kvichavak River (Sec. 17 and 18, T. 13 N., R. 71 W., SM) to the confluence with Crooked Creek (Sec. 27, T. 17 N., R. 63 W., SM).

The BLM issued another memorandum on March 23, 2004, identifying navigable waters on certain lands within 44 townships, including pending ANCSA selections and IC'd lands, scheduled for field survey during 2004. The memorandum found the Johnson River navigable in T. 15 N., Rs. 68, 69 and 70 W., and in T. 16 N., R. 69 W., SM, based on previous navigability reports dated June 13, 1990 and August 29, 2002. (Attachment 53)

<u>Summary of Navigability Determinations</u>: Navigability determinations for the Johnson River System are summarized below in Table 1 and shown in Figures 6, 7 and 8 on pages 37-39. The Johnson River and associated sloughs and lakes have been officially determined navigable up through Sec. 4, T. 11 N., R. 73 W., SM (river mile 62); through all Native allotments from river mile 62 to its head in Arhymot Lake; through T. 15 N., Rs. 68, 69 and 70 and T. 16 N., R. 69 W., SM (from river mile 112 to 157.5); through the uppermost portion of the river that constitutes a portion of the Y-K Portage route in T. 17 N., Rs. 62 and 63 W., SM (river miles 222-233); through the conveyance area upriver of the Y-K Portage (river miles 238 to 240). Arhymot Lake and its inlet where it flows through Native allotment FF-17385-A have also been determined navigable. The Arhymot Lake inlet stream outside of the Native allotment was determined nonnavigable within lands approved for conveyance to The Kuskokwim Corporation.

Table 1. Navigability Determinations for the Johnson River System

Date	River System	Type, Decision and Substance	Criteria
	Area	Note: decisions of 'navigable' are in bold ,	
9/17/1975	Johnson Disson	'nonnavigable' are <u>underlined</u> .	Not stated
9/1//19/5	Johnson River miles 0.0 to 23	Note to file on Atmautluak selection area:	Not stated
Attachment 2	miles 0.0 to 25	considered the Johnson River navigable from its confluence with the Kuskokwim River to	
Attachment 2		Nunavakanukakslak Lake.	
	Nunavakanukakslak	considered Nunavakanukakslak Lake navigable .	Not stated
	Lake	Considered Ivunavakanukaksiak Lake navigable .	Not stated
11/5/1975	Johnson River	Navigability Field Report for Atmautluak,	Not stated
11/3/17/3	miles 0.0 to 34;	Nunapitchuk, Kasigluk, Akiak, Akiachak:	Not stated
Attachment 3	West Fork	described Johnson River as navigable to the	
Attachment 5	miles 0.0 to 5.5	village of Kasigluk.	
1/27/1976	Johnson River	Memorandum on Task Force Meeting on	Travel, Trade
1/2//1//0	miles 0.0 to 34;	Nunapitchuk: considered the Johnson River	and Commerce
Attachment 11	West Fork	from its mouth to Nunapitchuk and Kasigluk	und commerce
Thuemient II	miles 0.0 to 5.5	navigable.	
4/19/1976	West Fork of	Task Force Meeting on Kasigluk: determined	Travel, Trade
1/1/1/10	Johnson River	the Johnson River within the selection area to be	and Commerce
Attachment 12	miles 3 to 10	navigable.	
5/7/1976	Johnson River	Easement Task Force Meeting on Atmautluak:	Travel, Trade
5///19/0	miles 0.0 to 30.5;	considered the Johnson River through the	and Commerce
Attachment 13	West Fork	selection area to the village of Kasigluk	und commerce
1 1000010010 10	miles 0.0 to 5.5	navigable.	
5/27/1976	Johnson River	Easement Task Force Meeting on the village of	Travel, Trade
0/2//1//0	Miles 0.0 to 13	Napakiak: considered the Johnson River	and Commerce
Attachment 4		navigable within the selection area.	
9/ 2/1976	Johnson River	Memorandum to files on Navigable waters	The BLM's
	miles 0.0 to 34;	within Village Selections: determined the	navigability
Attachment 5	West Fork	Johnson River navigable from its mouth to	guidelines
	miles 0.0 to 5.5	villages of Kasigluk and Nunapitchuk.	C
11/4/1976	West Fork of	Notice of Proposed Easement Recommendations	Travel, Trade
	Johnson River	for the Village of Kasigluk: determined the	and Commerce
Attachment 14	miles 3 to 10	Johnson River within the selection area	
		navigable.	
1/14/1977	Johnson River	Notice of Proposed Easement Recommendations	Travel, Trade
	miles 13 to 30.5 and	for the Village of Atmautluak: determined the	and Commerce
Attachment 61	its West Fork	Johnson River and its West Fork throughout the	
	miles 0 to 5.5	selection area up to the village of Kasigluk	
		navigable.	
4/19/1979	Johnson River	Navigability Memo: Nunapitchuk Conformance	Travel, Trade
	miles 0.0 to 34;	Meeting: considered the Johnson River from its	and Commerce
Attachment 15	West Fork	mouth to the villages of Nunapitchuk and	
	miles 0.0 to 5.0	Kasigluk navigable .	
	Johnson River miles	Considered the Johnson River north of	Travel, Trade
	34 to 51.5; West	Nunapitchuk and Kasigluk and the lake system	and Commerce
	Fork miles 5.5 to 10;	through which it passes <u>not navigable</u> .	
	Unnamed Lake #1;		
	Unnamed Lake #2;		
	Kaygiyalik Lake;		
	Nunavakanukakslak		

4/30/1979	Johnson River	Short Note Transmittal re: Navigability of	Not stated
	miles 16.5 to 61.5	Johnson River: determined the Johnson River	
Attachment 16		throughout the Atmautluak, Nunapitchuk and	
		Kasigluk selection areas navigable .	
5/22/1980	Johnson River	Final Easements for the Village of Nunapitchuk:	Travel, Trade
Attachment 20	miles 16.5 to 53	determined the Johnson River throughout the selection area navigable .	and Commerce
	Nunavakanukakslak Lake	determined Nunavakanukakslak Lake navigable.	Travel, Trade and Commerce
	Kayigyalik Lake	determined Kayigyalik Lake in Secs. 4, 5, 6, 7, 8 and 18, T. 10 N., R. 74 W., SM navigable .	Travel, Trade and Commerce
	East Channel	determined the East Channel of the Johnson River in Secs. 7, 8 and 17, T. 10 N., R. 74 W., SM navigable .	Travel, Trade and Commerce
	Unnamed Lake #2	determined Unnamed Lake #2 in Secs. 19, 20, 29-32, T. 10 N., R. 74 W., SM navigable.	Travel, Trade and Commerce
	North Fork	determined the North Fork of the Johnson River in Sec. 31, T. 10 N., R. 74 W.; and Secs. 5, 6, 8, 9, 16, 17, T. 9 N., R. 74 W., SM navigable .	Travel, Trade and Commerce
	Nunavakanukakslak Lake	determined Nunavakanukakslak Lake within Sec. 31, T. 10 N., R. 73 W.; and Secs. 34-36, T. 10 N., R. 74 W.; and Secs. 1, 2, 3, 10-15, 23-26, 36, T. 9 N., R. 74 W., SM navigable .	Travel, Trade and Commerce

7/25/1980	Johnson River miles 16.5 to 53	Decision on Lands Proper for Village Selection Approved for Interim Conveyance or Patent for	Travel, Trade and Commerce
Attachment 21		Nunapitchuk: considered the Johnson River and its interconnecting sloughs throughout the selection navigable .	
	Nunavakanukakslak Lake	Determined Nunavakanukakslak Lake navigable .	Travel, Trade and Commerce
	Kayigyalik Lake	Determined Kayigyalik Lake navigable.	Travel, Trade and Commerce
	Kayigyalik Lake	Determined Kayigyalik Lake in Secs. 4, 5, 6, 7, 8 and 18, T. 10 N., R. 74 W., SM navigable.	Travel, Trade and Commerce
	East Channel	Determined the East Channel of the Johnson River in Secs. 7, 8 and 17, T. 10 N., R. 74 W., SM navigable .	Travel, Trade and Commerce
	Unnamed Lake #2	Determined Unnamed Lake #2 in Secs. 19, 20, 29-32, T. 10 N., R. 74 W., SM navigable.	Travel, Trade and Commerce
	North Fork	Determined the North Fork of the Johnson River in Sec. 31, T. 10 N., R. 74 W.; and Secs. 5, 6, 8, 9, 16, 17, T. 9 N., R. 74 W., SM navigable .	Travel, Trade and Commerce
	Nunavakanukakslak Lake	Determined Nunavakanukakslak Lake within Sec. 31, T. 10 N., R. 73 W.; and Secs. 34-36, T. 10 N., R. 74 W.; and Secs. 1, 2, 3, 10-15, 23-26, 36, T. 9 N., R. 74 W., SM navigable .	Travel, Trade and Commerce
5/28/1981	Johnson River	Memorandum on Final Easements for the	Travel, Trade
Attachment 28	miles 13 to 21 and 51.5 to 61.5	Village of Atmautluak: determined Johnson River through the selection navigable .	and Commerce
	Nunavakanukakslak Lake	Determined Nunavakanukakslak Lake in Secs. 7, 8, 17-21, 27-33, T. 9 N., R. 73 W.; and Secs. 2-4, T. 8 N., R. 74 W., SM navigable .	Travel, Trade and Commerce
9/14/1981 Attachment 29	Johnson River miles 13 to 21 and 51.5 to 61.5	Decision on Lands Proper for Village Selection Approved for Interim Conveyance in the vicinity of Atmautluak: determined the Johnson River throughout the selection area navigable .	Travel, Trade and Commerce
11/20/1981	Johnson River miles 13 to 21 and	IC No. 448 for Atmautluak Limited: determined the Johnson River throughout the selection area	Travel, Trade and Commerce
Attachment 30	51.5 to 61.5	navigable and excluded it from conveyance.	
No date	West Fork	Final Easements for the Village of Kasigluk:	Travel, Trade
Attachment 32	miles 3 to 10	determined the West Fork of the Johnson River throughout the selection area navigable .	and Commerce
1/25/1982	Johnson River	Memorandum on Final Easements for the village	Travel, Trade
	miles 0.0 to 13	of Napakiak: determined the Johnson River	and Commerce
Attachment 6		navigable throughout the selection.	
3/2/1982 and	West Fork of	Decision on Lands Proper for Village Selection	Travel, Trade
2/15/1983 Attachment 33 and 35	Johnson River miles 3 to 10	Approved for Interim Conveyance for the Native Village of Kasigluk: determined the West Fork of the Johnson River throughout the selection	and Commerce
		navigable.	

3/15/1982	Johnson River	IC No. 485 to Nunapitchuk Limited: determined	Travel, Trade
Attachment 27	miles 16.5 to 53	the Johnson River throughout the selection area navigable .	and Commerce
3/23/1982	East and West	Decision of July 25, 1980, Modified in Part,	Travel, Trade
	Channels	Nunapitchuk Selections: determined the East	and Commerce
Attachment 26		and West Channels of the Johnson River in	
		Secs. 16, 17, 20, 21, 28, and 29, T. 10 N., R. 74	
3/31/1982	Johnson River	W., SM navigable . Decision on Lands Proper for Village Selection	Travel, Trade
5/51/1982	miles 0.0 to 13	for Interim Conveyance for Napakiak	and Commerce
Attachment 7	111103 0.0 10 15	Corporation: determined the Johnson River	
		navigable throughout the selection area.	
8/20/1982	Johnson River	Letter on easement decisions by BLM to The	Not stated
	miles 232 to 240	Kuskokwim Corporation: determined part of the	
Attachment 81		upper Johnson River to be navigable .	
	Arhymot Lake	Determined Arhymot Lake to be navigable .	Not stated
8/23/1982	Johnson River	Memorandum on Final Easements for the	Travel, Trade
A	miles 223, 230 to	Kuskokwim Corporation for the Village of	and Commerce
Attachment 82	236, 238-240	Upper Kalskag: determined the upper Johnson River throughout the conveyance area to be	
		navigable.	
		havigable.	Travel, Trade
	Arhymot Lake	Determined Arhymot Lake to be navigable	and Commerce
	Arhymot Lake inlet	Determined Arhymot Lake inlet stream to be	Travel, Trade
	stream	<u>nonnavigable</u> throughout the conveyance area.	and Commerce
9/30/1982	Johnson River	Decision on Lands Proper for Village Selection	Travel, Trade
A 1	miles 223, 230 to	Approved for Interim Conveyance to Upper	and Commerce
Attachment 38	236, 238-240	Kalskag Inc.: determined the Johnson River from its confluence with Crooked Creek to the	
		Mud Creek portage navigable throughout the	
		conveyance area.	
			Travel, Trade
	Arhymot Lake	Determined Arhymot Lake to be navigable	and Commerce
	Arhymot Lake inlet	Determined Arhymot Lake inlet stream to be	Travel, Trade
	stream	<u>nonnavigable</u> throughout the conveyance area.	and Commerce
12/27/1982 and	West Fork of	Interim Conveyance Nos. 595 and 678 for	Travel, Trade
6/30/1983	Johnson River miles 3 to 10	Kasigluk, Inc.: determined the West Fork of the	and Commerce
Attachment 34 and 36	miles 5 to 10	Johnson River throughout the selection navigable	
12/28/1982	Johnson River	Memorandum on Final Easements for the	Travel, Trade
12,20,1702	miles 132 to 137	Village of Ohogamiut: determined the Johnson	and Commerce
Attachment 73		River <u>nonnavigable</u> .	
12/29/1982	Johnson River	IC No. 616 to Napakiak Corporation:	Travel, Trade
	miles 0.0 to 13	determined the Johnson River navigable.	and Commerce
Attachment 8			
9/30/1983	Johnson River	IC No. 749 for Upper Kalskag: determined the	Travel, Trade
Attachment 40	miles 223, 230 to	Johnson River within the selection area in Secs.	and Commerce
Attachment 40	236, 238-240	20-22, T. 17 N., R. 62 W., SM navigable and excluded it from conveyance.	
	Arhymot Lake	Determined Arhymot Lake to be navigable .	Travel, Trade
	I minymot Lake		

11/8/1984 Attachment 39	Johnson River miles 222 to 233	Memorandum on Navigable Waters of the Kuskokwim Region, Alaska: determined the Johnson River from its confluence with Crooked Creek to the Mud Creek portage navigable .	Garner Memorandum, Regional Solicitor's opinion of 2/25/1980, BLM Instruction Memorandum No. AK-81-78
5/8/1988 Attachment 43	North Fork	Memorandum on Navigable Waters in Group Survey No. 168 (Window 1836): determined the North Fork of the Johnson River navigable .	Craft larger than one- person kayak
	Johnson River miles 0.0 to 49	Determined the Johnson River through Sec. 36, T. 11 N., R. 74 W., SM navigable .	Craft larger than one- person kayak
	Johnson River miles 47 to 61.5	Determined the Johnson River in Sec. 2, T. 10 N., R. 74 W.; Secs. 13, 23, 24, 26, 34, 35, T. 11 N., R. 74 W.; T. 11 N., R. 73 W., SM navigable.	Craft larger than one- person kayak
	Johnson River at river mile 39.25	Determined the Johnson River through Native allotment F-14961-C navigable .	Craft larger than one- person kayak
5/8/1989 Attachment 44	Johnson River miles 0.0 to 61.5, 68 to 69.5, 73 to 74, 86.5 to 88, 92.5, 103, 108.5, 116, 132 to 137, 143 to 144.5, 160 to 162.5, 175.5, 177.5, 180, 183 to 184.5, 187, 195.5, 204, 220.5 to 221, 223, 230 to 237, 238 to 240	Memorandum on Navigable Waters in Group Survey 254 (Window 1834): determined the Johnson River downstream of its confluence with Crooked Creek as well as the upper Johnson River in T. 17 N., R. 62 W., and Secs. 22 and 23, T. 17 N., R 63 W., SM along claims or Native allotments navigable .	Craft larger than one- person kayak
6/10/1000	237, 238 to 240 Arhymot Lake inlet stream	Determined Arhymot Lake inlet stream through Native allotment FF-17385-A navigable .	Craft larger than one- person kayak
6/13/1990 Attachment 41	Johnson River at river miles 116, 143, 144	Memorandum on Navigable Waters in Group Survey No. 270 (Window 2028): determined the Johnson River navigable through Native allotments AA-50580, F-14181 and AA-31291.	Travel, Trade and Commerce
7/5/2000 Attachment 50	Johnson River at river mile 204	Memorandum of Navigable Waters in Native Allotments Scheduled for Survey in Window 1283: determined the Johnson River through Native allotment F-16018 navigable .	Travel, Trade and Commerce and crafts with a load capacity of 1,000 lbs.
8/29/2002 Attachment 52	Johnson River at river mile 187	Memorandum on Navigable Waters in Native Allotments Scheduled for Survey – Nunapitchuk 2001 (Group Surveys 254, 268, and 270): determined the Johnson River through Native allotment F-16023-A navigable .	Travel, Trade and Commerce

3/23/2004	Johnson River	Memorandum on Navigable Waters within	Travel, Trade
	miles 112 to 157.5	ANCSA-Selected and Interim-Conveyed lands	and Commerce
Attachment 53		in the Marshall/Ohogamiut/Russian Mission	
		Project Area (CAA-2): determined the Johnson Diver within T. 15 N. Be, 68, 60, 70 W. and T.	
		River within T. 15 N., Rs. 68, 69, 70 W.; and T. 16 N., R. 69 W., SM navigable .	
3/16/2007	Johnson River	Memorandum on Navigable Waters within	Travel, Trade
	miles 0.0 to 61.5	Survey Group Nos. 140, 268, and 284:	and Commerce
Attachment 54		determined the Johnson River within Tps. 7-11	
		N., R. 73 W.; and Tps. 7-11 N., R 74 W.; and T.	
		9 N., R. 75 W., SM navigable.	
	Nunavakanukakslak	Determined Nunavakanukakslak lake within	Travel, Trade
	Lake	Tps. 9 and 10 N., R. 73 W.; and T. 10 N., R 74	and Commerce
	Luite	W., SM navigable.	
	North Fork	Determined the North Fork of the Johnson River	Travel, Trade
		within T. 9 N., R 74 W., SM navigable.	and Commerce
	West Fork	Determined the West Fork of the Johnson River	Travel, Trade
	West Fork	within T. 9 N., R. 75 W., SM navigable .	and Commerce
		and the second	
	West Channel	Determined the West Channel of the Johnson	Travel, Trade
		River within T. 10 N., R. 74 W., SM navigable.	and Commerce
	East Channel	Determined the East Channel of the Johnson	Travel, Trade
	Last Channel	River within T. 10 N., R. 74 W., SM navigable .	and Commerce
	Unnamed Lake #1	Determined Unnamed Lake #1 within T. 9 N.,	Travel, Trade
		R. 75 W., SM navigable.	and Commerce
	Unnamed Lake #2	Determined Unnamed Lake #2 within Tps. 10	Travel, Trade
	Ullianieu Lake #2	and 11 N., R. 74 W., SM navigable.	and Commerce
		und 11 11., 1. / T 11., Divi na vigabie.	and commence

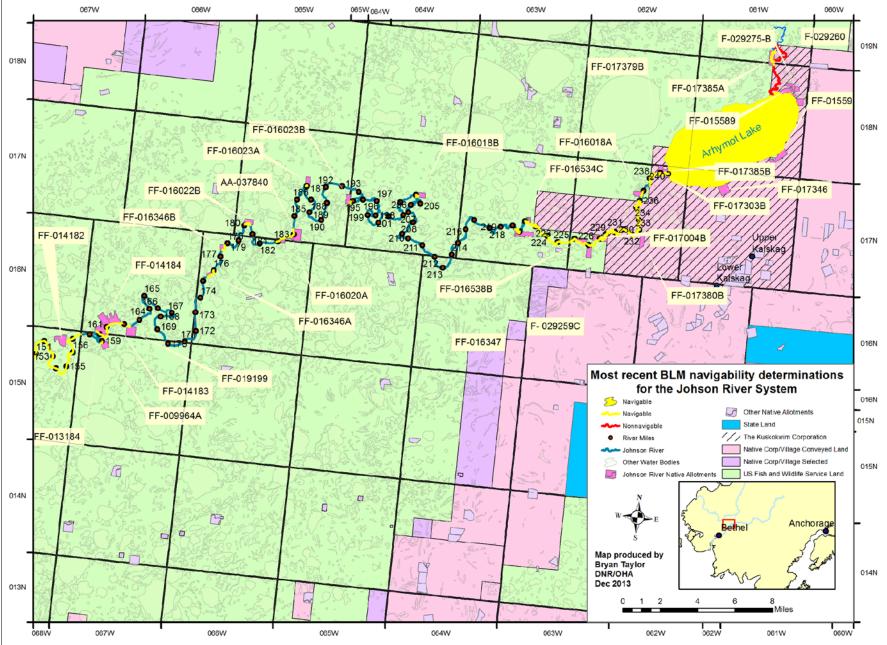




Figure 6. Map showing the most recent navigability determinations for the upper Johnson River System



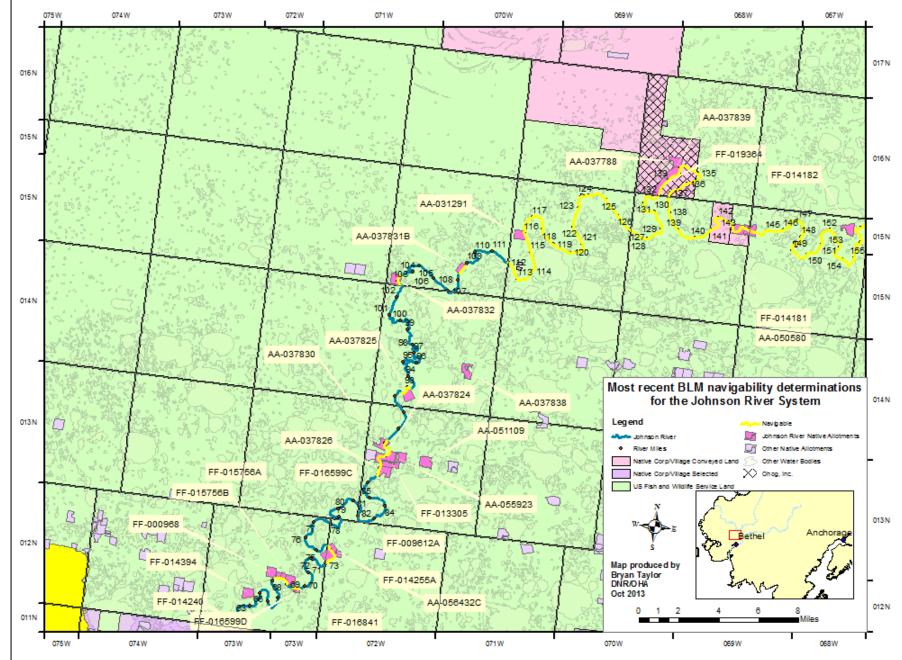


Figure 7. Map showing the most recent navigability determinations for the middle Johnson River System

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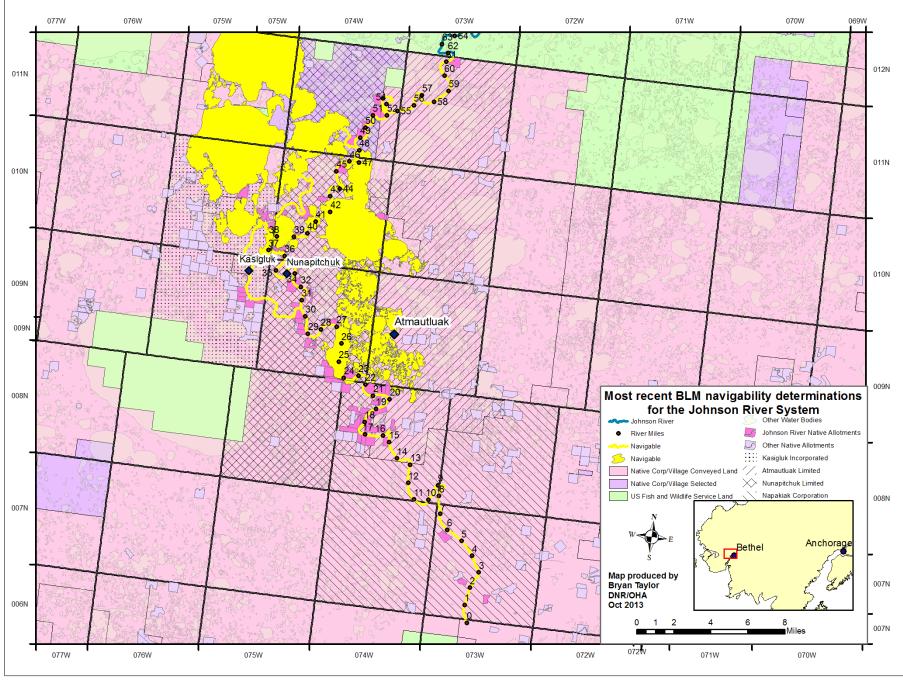


Figure 8. Map showing the most recent navigability determinations for the lower Johnson River System

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IV. Physical Character of Waterway

The Johnson River System is located in the Yukon-Kuskokwim Delta and is a significant tributary of the Kuskokwim River. The Johnson River is about 240 miles long^v and drains an area of approximately 3,000 square miles. The river heads in Arhymot Lake (Sec. 2, T. 17 N., R. 62 W., SM) (Figures 9 and 10) in the lowlands between the Yukon and Kuskokwim rivers and flows in a southwesterly direction into the Kuskokwim River south of Bethel. From its headwaters in Arhymot Lake, the Johnson River is slow moving and flows in a single channel without any rapids (Figures 11 and 12). The river is also fed by large tundra lakes, including Nunavakanukakslak, Kayigyalik and Nunavakpak lakes, and a number of smaller interrelated lakes and sloughs. About 40 miles east of Baird Inlet, the river turns to the southeast and joins the Kuskokwim River.



Figures 9 and 10. Left photo: Southern shore of Arhymot Lake, looking southwesterly over F-17346. Right photo: Arhymot Lake from southern shore at FF-15599. Photos taken by BLM on June 1, 1975.

^v The overall length of the Johnson River and the river mile markers used in this report are based on Geographic Information System (GIS) calculations using the National Hydrology Data Set which was derived from U.S. Geological Survey 1:63,000 quad maps. The calculations for mile markers are based on the eastern-most branches of the Johnson River. This mile marker system is significantly different than mile markers found in BLM/ANILCA documents, which may be based on air miles between points rather than distances along the river bed of the main channel.



Figure 11. Headwaters of the Johnson River, looking northeast to Arhymot Lake over FF-17379-B. Photo taken by BLM on June 28, 1975.



Figure 12. Johnson River exiting Arhymot Lake, looking southerly over F-17385-B. Photo taken by BLM on June 24, 1975.

The principal tributaries of the Johnson River are Crooked Creek^{vi} (river mile 222), Pikmiktalik River (river mile 13) and Kongeruk River (river mile 6). Crooked Creek is narrow and flows for about 18 miles before entering the upper Johnson River from the north. The Pikmiktalik River meanders in a southwesterly direction for approximately 200 miles and nearly parallels the Johnson River in an extensive region of coalesced lakes in the lower portion of the river. The Pikmiktalik River empties into the lower reaches of the Johnson River from the north at river mile 13. The Kongeruk River also flows in a southwesterly direction and flows into the Johnson River at river mile 6. Other tributaries flowing into the Johnson River are Putu Creek (river mile 92) and the Kvichavak River (at river mile 73.5). These tributaries will be dealt with in separate navigability reports.

The channel gradient of the Johnson River is 0.2 feet per mile. The headwaters are at an elevation of 60 feet, and the mouth is at an elevation of 8 feet at the point of discharge into the Kuskokwim River. The channel is meandering in form. The river heads in large lakes located in the area of the Yukon-Kuskokwim Portage. Hundreds of thaw lakes are found in the Johnson River watershed, which is basically a continuous wetland. Drainage lines are indefinite because of low relief.⁹¹ The Johnson River is tidally influenced from its mouth to Sec. 22, T. 9 N., R. 74 W., SM (river mile 27).⁹²

Most of the Johnson River uplands consist of low-lying tundra. Based on BLM photogrammetric evidence, the Johnson River is 10 to 20 feet wide from its headwaters at Arhymot Lake to river mile 223 (e.g., Figure 13); is 35 to 50 feet wide from river mile 223 to approximately river mile 153 (e.g., Figure 14); is 50 to 65 feet wide from approximately river mile 153 to approximately river mile 105 (e.g., Figure 15); and is 200 to 300 feet wide from approximate river mile 104 to its mouth at river mile 0 (e.g., Figures 16 and 17).⁹³ (Attachment 49)



Figure 13. Johnson River at river mile 227, looking northwest over F-29259-C. Photo take by BLM on June 11, 1986.

^{vi} For a discussion on the names of the upper Johnson River and Crooked Creek, see page 3 above. Johnson River System, HUC 30502, Zone 4 Phase II-B: Interim Summary Report



Figure 14. Johnson River at river mile 159, over FF-9964-A. Photo taken by BLM on August 19, 1974.

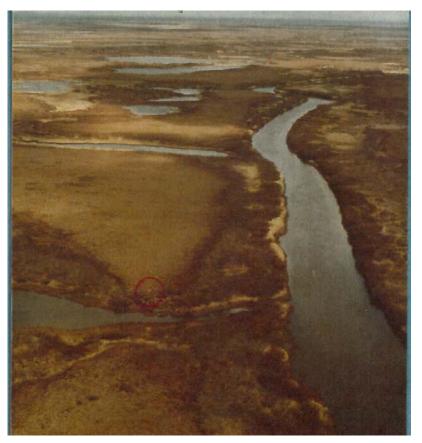


Figure 15. Johnson River at river mile 108, looking northeast over AA-37831-B. Photo taken by BLM on May 28, 1984.





Figure 16. Johnson River at river mile 89, looking northeasterly over AA-37830. Photo taken by BLM on May 25, 1984.

Figure 17. Johnson River at river mile 93, looking northeasterly over AA-37825. Photo taken by BLM on August 12, 1990.

In BLM aerial photographs, the Johnson River is unobstructed from its head in Arhymot Lake to its mouth. The river's depth varies depending on the section of the river, the season and the source of information. The upper reaches are from 5 to 7 feet deep, but some places can be as shallow as two feet deep during dry seasons.⁹⁴ Local people using the river reported no impediments to navigation. One local resident, Sinka Williams, Sr., reported the depth of the river to Crooked Creek at 7 feet in fall, a little deeper in the spring, but on average about 6-7 feet. Nicolai Sergie reported the depth at 5 to 6 feet when the river is low in July over the first 200 miles. Patrick Peter reported the depth at 4 to 6 feet in the summer and 10 to 15 feet in the spring over the same extent of river. Daniel P. George reported the river as 4 to 7 feet deep in the fall over the first 70 miles, while Mike Pavilla reported the river as 2 to 5 feet deep in the fall at river mile 165.⁹⁵ (Attachment 42) The river makes many turns for the first mile below Crooked Creek, but it has a clear channel 12 to 15 feet wide. In helicopter and ground photographs taken June 15 and June 23, 1975, the Johnson appears to be 20-30 feet wide and free of obstructions.⁹⁶ The Johnson River grows progressively wider in its middle and lower sections. Water bodies of the Johnson River System appear to be in their natural and ordinary condition since the time of statehood.

V. Evidence of Use of the Waterway

Early Use of the Johnson 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 BC,^{vii} when Eskimos from the north moved into the lower Kuskokwim drainage, bringing with them the so-called Arctic Small Tool tradition.⁹⁷ Permanent occupation of the interior Kuskokwim Delta with chronological continuity began about AD 600.⁹⁸

The middle and lower portions of the Johnson River System were occupied by Alaska Natives known as the *Akulmiut* as early as 0 to 600 AD. The *Akulmiut* occupied a 3,000 square mile area in the lowland tundra of the Yukon-Kuskokwim Delta, including the Johnson River drainage west through the Takslesluk-Kayigyalik Lake system to the Baird Inlet-Aropuk Lake region.⁹⁹ In addition to the *Akulmiut*, the middle and upper Johnson River System contains village sites and camps that have been used by Alaska Natives from both the Yukon and Kuskokwim rivers. Many present-day sites along the middle and upper Johnson River continue to be used by Alaska Natives along the Kuskokwim River, known as the *Kusquqvagmiut*, and Alaska Natives along the lower Yukon River, known as the *Kusquqvagmiut*. The *Kusquqvagmiut*, *Akulmiut*, and *Kuigpagmiut* are all descended from Eskimos known as Yup'ik Eskimos or mainland southwest Alaskan Eskimos and all lived in similar traditional seasonal subsistence patterns.¹⁰⁰

The *Akulmiut* traveled extensively throughout their territory in the tundra for subsistence activities as well as to traditional areas outside their territory for purposes of trade with neighboring Alaska Native groups. The *Akulmiut* seasonal subsistence patterns continue to the present day. The *Akulmiut* established permanent villages that formed a base from which they wandered in an annual round of subsistence activities. To exploit local resources, the *Akulmiut* lived at several different locations throughout the year. These locations included a winter village, spring and fall tundra camps, and a summer fish camp. In winter the dispersed family groups of the *Akulmiut* would collectively gather at the winter village, which was their most permanent settlement throughout the year. The winter village is where they cached the majority of supplies and food throughout the year. Though little subsistence gathering was done at the village site, some fish traps were maintained near the village to provide some fresh fish during the winter months.¹⁰¹ Their lifestyle centered on fishing for freshwater fish, hunting of land mammals, waterfowl, and occasionally sea mammals, and gathering berries.¹⁰² The lakes and streams on the tundra contain whitefish, trout, pike, and a variety of other fish. Sleds and boats were used for these hunting and fishing activities as well as for travel between villages.

In the spring the *Akulmiut* moved to their tundra camps where they harvested waterfowl, fish, game, and furbearers. Some tundra camps were within a day's trip from the winter village; others required families to travel for many days to camps along distant tributaries.¹⁰³ Families made the spring journey using a freight sled, on which they carried supplies and equipment, including a boat. In the spring camp, women and girls searched for last year's berries still on

^{vii} BC (Before Christ) and AD (Anno Domini) are used here to label years in the Gregorian calendar, denoting years since the start of the era (AD) and those before the era (BC).

bushes. Once nearby water bodies were free of ice, women fished with hooks and lines and tended gill nets and fish traps for species such as northern pike and whitefish. Men used small canoes or kayaks to range over large distances to hunt and snare waterfowl, to spear fish, and to hunt and trap furbearers, especially beaver, land otter, mink, and muskrats. After breakup, gill nets were set from boats in rivers and lakes for whitefish and pike. As migrating birds entered the area and began nesting, eggs were collected. After a couple of months, the families would return to their villages, using boats to travel back with their equipment (Figure 18).¹⁰⁴



Figure 18. Bethel residents preparing for journey to spring camp, carrying their boats. Reprinted for Lenz, et al., *Bethel: the 1st 100 Years*, p. 62. Photo by Rev. Ferdinand Drebert, circa 1915.

When the summer fishing season was nearing, families would move to camps along rivers. Families with enough members to assist with the work moved to seasonal salmon fishing camps along the Kuskokwim.¹⁰⁵ Other families moved to camps along the Johnson River and fished for whitefish and pike. In addition to fishing, the *Akulmiut* traveled by boat on waterways throughout the tundra to pick berries and engage in bird drives on various lakes.

In the fall, most families boated to the camps they had occupied in the spring or to additional fall camps to obtain additional food for the winter, while some families remained within the inland tundra lakes area to continue to fish for whitefish and pike. During the fall, the women filled many containers with berries to transport back to the winter village. The men trapped blackfish and whitefish to provide additional food cached at the winter village. Men also trapped furbearers such as mink, ground squirrel, marmot, beaver, land otter, and marten, depending on local availability. Fall ended when local streams could no longer be navigated due to freeze-up. Families either returned early by boat or continued subsistence activities and waited until the conditions of the early winter were such that they could sled back to their home villages to settle for the winter.¹⁰⁶

Settlements were located extensively from the Johnson River to the Baird Inlet-Aropuk Lake area, with the majority of settlements within the lower Johnson River System (Figure 19). While the winter villages were the most permanent places of residence for family groups among the *Akulmiut*, there was great variation in how much time was spent at any given subsistence harvest

location. Depending upon the year, conditions, and availability of resources, individuals or groups may reside at seasonal harvest locations year-round or return to them frequently even throughout the winter.¹⁰⁷ Regarding the permanence of settlements and their relation to winter villages, anthropologist Wendell Oswalt, in his book *Mission of Change in Alaska*, wrote that "all of these settlements had an air of permanence, for some had been occupied over many generations. A camp was seldom abandoned unless there was a persistent scarcity of fish and fur animals in the vicinity."¹⁰⁸

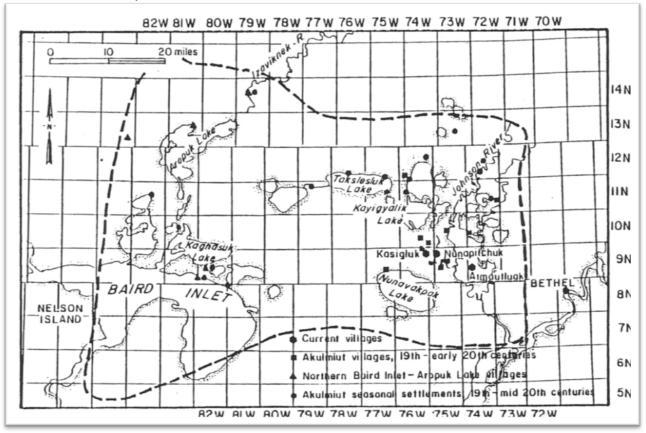


Figure 19. 19th and 20th century *Akulmiut* villages and seasonal settlements identified through Yup'ik place names. Source: Elizabeth Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, TP No. 177, p. 293.

Among Alaska Native groups, the annual subsistence cycle and customs of the *Akulmiut* were reported to be the least changed by non-native influences at the end of the nineteenth century.¹⁰⁹ The relative isolation of the tundra preserved traditional seasonal migrations and interior village sites until the influenza and measles epidemic of 1900, at which time dramatic population shifts began to change settlement patterns.¹¹⁰ The knowledge and skill needed to navigate the tortuous water routes of the lowland tundra of the Yukon-Kuskokwim Delta kept most non-natives from traveling into the area.

In 1844, the *Akulmiut* were the principal source of furs for Ikogmiut, a trading station along the Yukon.¹¹¹ By 1824, Russian fur traders had established trade with the people of the Kuskokwim River and surrounding area, including both the *Akulmiut* and the *Kusquqvagmiut*. As trading stations were established along the Kuskokwim River, furs from the *Akulmiut* and

Kusquqvagmiut were increasingly collected at these sites. Native trappers traded furs for manufactured goods such as clothing, wool blankets, knives, flint, spears, needles, pots, cups, mirrors, copper rings and other items of personal adornment. Contact with Russians produced patterns which were not part of the indigenous subsistence system: commercial trade, credit/debt relations, and some experience with money as a medium of exchange.¹¹² Traders from Russian trading stations along the Yukon and Kuskokwim rivers, who were mostly Alaska Natives not from among the *Akulmiut*, traveled extensively throughout the lowland tundra, where they would make contact with *Akulmiut* hunters and trappers to obtain pelts.¹¹³ During the summer, the traders journeyed using large, open skin boats with oars and sails; in winter, travel was by sled and dog team.¹¹⁴

After the departure of the Russians in 1867, the Alaska Commercial Company monopolized the fur trade, severely restricted credit to the Natives, and conducted a flourishing business in furs at Kuskokwim River trading posts. In 1884, 44% of furs exported from the Kuskokwim area came from the Alaska Commercial Company's Bethel Station, the primary trade station for furs obtained from the Akulmiut at that time.¹¹⁵ Between 1900 and 1906, the price of mink pelts rose from 25¢ to \$4.00. The Aropuk Lake-Baird Inlet area had the highest density of mink in the Yukon-Kuskokwim (Y-K) Delta. The area was used for hunting and trapping mink by Nunapitchuk residents in the first half of the twentieth century. The lower Johnson River System is part of an inland travel route used by trappers, hunters, and traders to access the Aropuk Lakes-Baird Inlet region. Between 1918 and 1930, Frank Waskey, a trader from Dillingham, traveled throughout the Y-K Delta region from the Johnson River to Baird Inlet area by a threeholed kayak to buy furs. Some Nunapitchuk residents reported that their grandfather was one of the men hired by Waskey to paddle him through the area during the summer to collect furs.¹¹⁶ The prevalence of mink within the lowland tundra area prompted the establishment of the first trading post within the Akulmiut area in 1903 at Nunachuk, along the Johnson River south of Kayigyalik Lake.

Until 1940, the influence of market economy on the *Akulmiut* and *Kusquqvagmiut* was mostly through the fur trade, and this was mostly a cashless credit or trade system. The market after World War II fluctuated extensively as demand and prices for most fur species declined in southwest Alaska. In the 1950s and 1960s, participation in the fur trade declined further due to centralizing forces such as compulsory school attendance. Throughout this time, most trapping was done while hunting and harvesting resources for domestic consumption with minimal effects on traditional seasonal subsistence cycles.¹¹⁷ The *Akulmiut* continued their traditional travel by boat and sled from villages along the lower Johnson River area along inland waterways and lakes to seasonal camps and villages as distant as Aropuk Lake and Baird Inlet to the west.¹¹⁸

In the first half of the twentieth century, beginning with the influenza epidemic in 1900, the population distribution of the Alaska Natives in the Y-K Delta shifted from many smaller villages to a few larger villages. *Akulmiut* villages were concentrated south of Kayigyalik Lake along the Johnson River.¹¹⁹ People from villages as far away as Aropuk Lake moved to the Johnson River area.¹²⁰ *Kusquqvagmiut* villages were concentrated along the Kuskokwim River. By 1980, *Akulmiut* population was concentrated into the three villages of Kasigluk, Nunapitchuk, and Atmautluak within the lower Johnson River system. The people within this area of the lower Johnson River system came to be referred to locally as "tundra people." Centralizing forces

affecting this *Akulmiut* population included an increasing presence of commercial fishing in the twenty years prior to World War II and mandatory school attendance, which disrupted subsistence activities in the spring and fall. A day school was established in 1920 at Nunachuk, but was moved, along with the village church, to Kasigluk in 1946 because of bank erosion.¹²¹ Formal Moravian education began in 1930 at Nunapitchuk, and an Office of Indian Affairs school opened in 1937.¹²²

Due to centralizing forces on population distribution, many villages and campsites were abandoned as places of permanent or semi-permanent occupation. These locations continued to be used as seasonal hunting camps and became the locations claimed as Native allotments or as historic and cemetery sites under ANCSA Sec. 14 (h)(1).¹²³ The middle and upper parts of the Johnson River System have several known locations of historic villages and seasonal campsites that were occupied and used during the prehistoric and historic periods. These locations along with many place names on and around the Johnson River were recorded by the BIA during ANCSA fieldwork in the 1980s.

The village site and camp of *Atqernaq* is at approximate river mile 114 of the Johnson River. Prior to 1930 the site was reported to have been permanently occupied and, sometime in the nineteenth century, had been a village. In the late nineteenth and early twentieth centuries the site was primarily used as a fall and winter camp and was still being used as a hunting camp at the time of initial BIA investigations in the 1980s.¹²⁴

Near river mile 124, the old village site of *Kamuryariicilleq* lies along the Johnson River. The site was reported to be an old village that was abandoned around the 1930s but continued to be used as a winter and fall camp at the time of the initial BIA investigation in 1982.¹²⁵

The old village site and camp of *Kanaryarak* lies along the Johnson River at approximately river mile 133. The site was reportedly in use prior to 1900. A structure was later moved to the site and served as a trading post until 1937. During the 1930s, the site was used for fox farming, reindeer husbandry, and as a stopover for mail runs between the Yukon and Kuskokwim River.¹²⁶

At river mile 141.5, the village site of *Cukvagtulirmiut* lies at the confluence of the Johnson River and the outlet of a lake known as *Cuukvagtulirmiut*. The village is reported to have been abandoned circa 1920 and was also known to have been used intensively as a summer and winter camp prior to the twentieth century.¹²⁷

The village site of *Itercaraq* (also called Tundra George according to the initial BIA Report of Investigation) is located on two islands at the confluence of the Johnson River and Itercaraq Creek, near river mile 143. The site is reported to have been an old village prior to the 1930s. The site was used for reindeer husbandry and as a stopover for mail runs by dog sled between the Yukon and Kuskokwim rivers.¹²⁸

The village site of *Cupiggnartuli* lies along the Johnson River at river mile 143.5. The site was reported to be an old village site occupied before contact between Alaska Natives and Russians. In the 1930s, the site was used for reindeer husbandry and as a stop over for mail runs by dog

sled between the Yukon and Kuskokwim River. At the time of the BIA investigation of the site, the site was reported to be in current use as a seasonal hunting and fishing camp by people from villages on the Yukon and Kuskokwim rivers.¹²⁹

At river mile 148.5, the village site of *Urarraq* (also known as Tundra George according to the initial BIA Report of Investigation) lies along the Johnson River midway between the Yukon and Kuskokwim rivers. In the 1930s, the site was used for reindeer husbandry and as a stopover for mail runs between the Yukon and Kuskokwim River during the winter. During the BIA site investigation, the site was reported to be an old village that was still used as a seasonal hunting and fishing camp.¹³⁰

Commercial salmon fishing, which also contributed to centralizing population distribution in the Yukon-Kuskokwim Delta, began along the Kuskokwim in 1913 and, subsequently, salmon harvesting for distribution in local markets developed as an industry in the Kuskokwim Bay area.¹³¹ As commercial fishing activity increased and greater centralization of the *Akulmiut* population along the Johnson River occurred, salmon fishing for distribution or export as well as for subsistence purposes became an increasing part of the annual subsistence cycle of the *Akulmiut*.¹³²

Increased salmon harvesting activities in the Kuskokwim area had an effect on the types of boats used to navigate waterways. Customarily, river travel was by kayak or larger skin boat. By the mid-1920s, the *Akulmiut* attached sails to boats to transport families and goods from tundra spring camps to the lower Kuskokwim River. By 1930, some *Akulmiut* adopted wooden plank boats with small outboard motors. During this time, canvas started to replace skin on kayaks, which continued to be used on many of the waterways.¹³³ In 1934, the Alaska Fisheries Act was amended, permitting commercial harvest of King salmon for export from the Yukon and Kuskokwim rivers by "native Indians and bona fide permanent white inhabitants" along the rivers. From 1935 on, *Akulmiut* families increasingly established fish camps for commercial purposes along the Kuskokwim.¹³⁴ After World War II, wage labor in canneries became an increasing part of *Akulmiut* economy and annual subsistence cycle. As this occurred, nets and boats associated with commercial fishing activities increasingly became incorporated into annual *Akulmiut* subsistence activities along the Johnson River.

Regular mail service was established in Bethel around 1905. From 1908 to 1922, the contract for carrying mail was held by Oscar Samuelson, a Norwegian man married to a Yup'ik woman. Samuelson delivered mail from Bethel to the lower Yukon River near Holy Cross. Utilizing Yukon-Kuskokwim portages between the Yukon and Johnson rivers, Samuelson would travel down the Johnson River to the lower Johnson River, making stopovers in villages along the way.¹³⁵ Of the sites investigated by the BIA along the middle Johnson River mentioned above, three sites (*Itercaraq, Urarraq*, and *Kanaryarak*) were reported to have been used by Samuelson during winter months as stopovers along his mail route along the Johnson River. In the summer, Samuelson carried mail in a motor launch and used canoes to cross the portage to the Yukon.¹³⁶ Charles E. Jacobsen, who was awarded the mail contract after Samuelson, described his boat in 1929 as being "thirty feet long with a four-foot beam. Having a capacity load of 2,600 pounds, the boat weighed four hundred pounds when empty and three thousand pounds when loaded. The boat required eight inches of water when loaded".¹³⁷ (Figure 20).

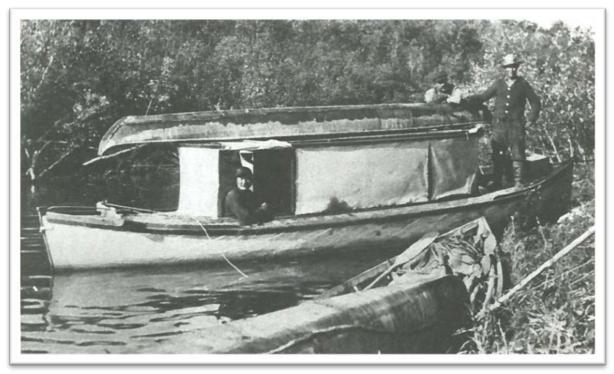


Figure 20. Oscar Samuelson's (second from right) boat for summer mail delivery. Note the canoe on top of boat. Reprinted for Lenz, et al., *Bethel: the 1st 100 Years*, p. 77.

Part of the upper Johnson River was one of a number of streams, lakes and creeks that comprised the once popular Yukon-Kuskokwim portages at Russian Mission and Paimiut that were traveled by Indians, Eskimos, Russian traders and early American geologists. In 1908, a Nome newspaper reported that 200 men used the Yukon-Kuskokwim Portage to rush to gold strikes in the Kuskokwim region. The stretch of the Johnson River between Kayigyalik Lake and the Yukon-Kuskokwim summer portage may once have been a route of boat travel in the nineteenth and early twentieth centuries. In the summer of 1910, Anton Eide of the Alaska Road Commission (ARC) noted that quite a few men crossing this summer portage from the Yukon River to the Kuskokwim "get tangled up among the sloughs, high grass and willows in the lowlands near the Kuskokwim, and wander around finally coming out about 25 miles below Bethel."¹³⁸ Eide did not specify what activities the men descending the Johnson River from the Russian Mission portage were engaged in. He mentioned that it was possible that they descended the river by mistake, having missed the Mud Creek portage, which is the last portage before reaching the Kuskokwim River.¹³⁹ However, for that same time period, residents of Nunapitchuk reported that Oscar Samuelson, who had the contract for carrying mail from Bethel to the lower Yukon River, intentionally used the mainstream of the upper Johnson River from the Yukon-Kuskokwim portages to access the lower Johnson River and surrounding lakes and "traveled across the portage from the lower Yukon River to the upper Johnson River, went down the Johnson River to the Akulmiut villages, thence to the Kuskokwim River, and returned upriver to Bethel."¹⁴⁰ On these trips, Samuelson took the Yukon-Kuskokwim portage and then traveled down the Johnson River to Akulmiut villages.¹⁴¹

Both Nunapitchuk and Kasigluk villages have long relied upon the lower Johnson River as a route of travel. Since the 1940s, several Kuskokwim River freight companies transported supplies on barges, scows and lighters up the Johnson River and the slough system between Nunapitchuk and Kasigluk to the villages of Kasigluk and Nunapitchuk, as well as to Atmautluak, which was accessed via the Pikmiktalik River.¹⁴² (Attachment 17) Samuel Anaruk, a government teacher at Nunapitchuk, wrote in early 1945 that Johnson River was the main transportation route to the village from the Kuskokwim River. From May 15 to October 1, the Johnson River was deep enough for the use of "barges, scows and lighters" regardless of the stage of the tide, which raised the water level three or four feet. While the villages lacked docking facilities, barges with thirty to fifty tons of freight had been unloaded at the villages in less than a day. Small boats were used to carry the mail from Bethel to Nunapitchuk once or twice a month, and logs from the Kuskokwim River were rafted to the village for use as building material and firewood.¹⁴³

Boat traffic on the lower Johnson River in the vicinity of Nunapitchuk and Kasigluk was substantial in the mid-twentieth century. Villagers moved a Russian Orthodox church building from Nunachuk, northwest of Kasigluk, to Kasigluk in 1959 on a log raft towed by several boats. In addition, the McGrath and Kuskokwim Freight Service, Inc. carried general cargo on barges to the villages of Kasigluk and Nunapitchuk.¹⁴⁴ The lower reaches of the Johnson and Pikmiktalik rivers were "the major fishing spots used by area residents," according to a BLM historian, in an area where "subsistence is the major economic activity."¹⁴⁵ (Attachment 17)

Use of the River by Native Allotment Holders

The lower Johnson River from its mouth to river mile 61.5 flows within lands selected by village corporations for the villages of Napakiak, Atmautluak, Nunapitchuk, and Kasigluk. Use of the lower Johnson River by Native allotment holders and other Alaska Natives is well documented within BLM studies from the 1970s and 1980s. Because of this, individual Native allotment files were not examined for this section of the river. For use of the lower Johnson River by Alaska Natives and allotment holders, refer to the section, "Other Reports of Use of the Johnson River," below. The heaviest use of the middle and upper Johnson River in the decades prior to and after 1959 has been by local Natives who used the river to travel between their villages and their allotments. Local fishermen, hunters and trappers used wooden skiffs with outboard motors on the Johnson River to access areas, now managed as the Yukon Delta NWR, for subsistence activities. The BLM began collecting information in the 1970s to adjudicate Native allotment applications. The Natives used favorite spots along the river for hunting, trapping, fishing and berry picking. These favorite spots, through custom, developed into exclusive use areas. The federal government recognized many of these allotments and transferred title to the sites to the applicants.

An examination of 56 Native allotment parcels, belonging to 50 Alaska Natives, along the middle and upper sections of the Johnson River revealed that 16 of the allotment owners were reported to have accessed their parcels along the Johnson River by boat. Files on 27 of the Native allotments do not indicate how the allotment owners accessed their parcels. Given the

wet nature of the terrain in the area, travel by boat for subsistence purposes was the only economical means of transportation at the time during the open season. The allotment files are summarized below starting from the middle portion of the Johnson River and extending upstream and through Arhymot Lake and its inlet stream.

Villagers from Nunapitchuk, Kasigluk, Atmautluak, Bethel, Akiachak and Akiak use the Johnson River to hunt, fish, trap and pick berries along the river where it flows through the Yukon Delta NWR. These villagers generally use 14- to 24-foot boats with 30- to 120-horsepower motors to travel up the river to reach their Native allotments and nearby areas where they conduct subsistence activities.

Middle Johnson River

There are 26 Native allotment parcels belonging to 24 Alaska Natives along the middle portion of the Johnson River from river mile 62 to river mile 150. Native allotment holders along this portion of the river have their primary residence within the villages of Nunapitchuk, Napakiak, Bethel, Akiachak, and Akiak. With the exception of Nunaptichuk, which is on the Johnson River, residents of the villages generally access their parcels during open water seasons by boating down the Kuskokwim and up the Johnson River. Within BLM Native allotment files, access to the parcels by applicants was addressed for 18 of the 26 allotments. Of the 18 addressed, only one applicant was reported to only use a dogsled or snowmachine to access his parcel (AA-37825), with the remaining 17 using a boat during open water periods. All of the 8 allotments for which access to the parcel was not mentioned were accessed during open water seasons during which boats were customarily used for transportation. The allotments for which access was directly indicated within the files are summarized below.

Nels Alexie of Bethel used two 40-acre parcels (FF-16599-C and D) along the Johnson River at river mile 69. Alexie used the parcels seasonally, year-round starting in 1960 for hunting, fishing, and berry picking. The BLM Field Report noted that access to the tracts by the applicant was "by boat in summer, but snow machine in winter."¹⁴⁶

Alexie Paul of Nunapitchuk used a 53-acre parcel (AA-056432-C) along the Johnson River at river mile 73.5. Paul used the parcel during the spring and summer beginning in 1925 for fishing and berry picking. Access to the parcel by the applicant was by boat.¹⁴⁷

Joseph Toopetlak of Nunapitchuk began using an 80-acre parcel (FF-14255-A) at river mile 74 of the Johnson River near its confluence with the Kvichavak River (Sec. 7, T. 12 N., R. 72 W., SM) seasonally in 1947 for subsistence purposes. He fished for pike with a net, trapped muskrat in the spring and hunted moose during the fall. Toopetlak accessed the tract, according to the Native Allotment Field Report, "by river boat, up the Johnson River from the [Nunapitchuk] village."¹⁴⁸

August Alexie of Bethel used a 125-acre parcel (FF-16841) along the Johnson River at river mile 74. Alexie used the parcel year-round beginning in 1941 for hunting, fishing, trapping, and berry picking. On his application Alexie noted he had "hunted, fished, trapped and berry picked on

this land since I was a child, and I would like to continue to do so. I am now building tent frames, fish racks and a fish cache. My father and his father's father used the same land."¹⁴⁹ While there were no structures on the land at the time of the BLM field report, the report noted that there were 4 old house pits on the parcel. Access to the parcel by the applicant was by boat in summer and dog sled or snowmachine in winter.¹⁵⁰

Julia George of Akiachak used a 160-acre parcel (AA-37826) at river mile 87. George used the parcel during the fall and winter every year starting in 1953 for fishing, trapping, and hunting. The BLM Field Report noted that access to the tract by the applicant was "by boat and snowmachine."¹⁵¹

Martha Ekamrak of Akiak used a 160-acre parcel (AA-55923) on a left bank tributary of the Johnson River near river mile 88 (Secs. 16 and 17, T. 13 N. R. 71 W., SM) from 1960 until the late 1970s. She and her husband used the land for subsistence purposes for berry picking and fishing from September to December each year and for hunting and trapping from April through June. Her grandchildren signed affidavits stating that their grandmother "traveled to her land by dog sled and boat and used the land for subsistence activities."¹⁵²

Joseph Ekamrak of Akiachak used a 160-acre parcel (AA-37824) on a left bank tributary of the Johnson River near river mile 88 (Secs. 17-18, T. 13 N., R. 71 W, SM) for subsistence purposes from 1907 until his death in 1975. The parcel was his fall and winter camp, where he picked berries, trapped white fish and trapped small fur-bearing animals. Improvements included a mud house that he built in 1952. Ekamrak traveled to the land from Akiachak, according to an affidavit signed by his son, "by boat or by dog sled."¹⁵³

Fred A. George of Akiachak began using a 160-acre parcel (AA-51109) on a left bank tributary of the Johnson River near river mile 87 (Secs. 15 and 16, T. 13 N., R. 71 W, SM) in 1947 for subsistence hunting, fishing, trapping and berry picking. The local Yup'ik name of the tributary is *Tunuirgun*. He first visited the land in 1945 as an infant as his parents were using the site. He used the parcel each year from March to June for trapping, fishing and berry picking and from September to December for hunting and trapping. Access by the applicant, according to a BLM Field Report, was "probably by river boat in summer and snowmachine/three-wheeler in winter."¹⁵⁴ In 2001, George stated in an interview that he reaches his allotment by boat in spring, summer and fall and by snowmachine in the winter. He added that he has boated this area for many years, most recently in the spring of 2000 using a 20-foot Lund Alumaweld boat with a 115-horsepower propeller-driven motor. His load included five or six people, a mix of adults and children, food, a tent and a 55-gallon drum of gas. He described it as "a very big load." He boated about five miles up the left bank tributary to a lake locally known as Tunighoon Lake (in Secs. 15, 16, 21, 22, T. 13 N., R. 71 W., SM). Beaver dams were present along the tributary but so far did not impede boat travel. George added that villagers from Nunapitchuk and Atmautluak travel up the river to hunt in the area, and villagers from Akiachak pick berries there.¹⁵⁵ (Attachment 58)

Walter George of Akiachak has boated the same unnamed left bank tributary of the Johnson River for many years. He stated in 2001 that his most recent trip was in 1997 or 1998 in late May during which time he used a 22-foot Yukon Raider with a 115-horse-powered propeller-

driven motor to travel up the Johnson River and the unnamed left bank tributary. His load included three adults, food and camping gear. The party stayed four or five days hunting black birds. They traveled quite a distance beyond his brother's [Fred A. George] allotment (AA-51109). Walter George has seen others boat this tributary from the Johnson River, including his cousins Peter Ekamrak, John and Abraham George and Fritz George.¹⁵⁶ (Attachment 58) Peter Ekamrak of Akiachak, a cousin of Fred and Walter George, has also traveled up the Johnson River and the unnamed left bank tributary to Fred A. George's allotment by snowmachine and by boat in the spring. Ekamrak stated in 2001 that he usually boats beyond Fred George's allotment after spring breakup, which usually occurs around the middle of May. Ekamrak used several boats, including a 16-foot or 18-foot Lund mounted with either a 30 or 40 horsepower propeller motor. Even if the river is shallower in the summer and fall, Ekamrak stated that villagers from Akiachak still pick berries between the end of July and August and Atmautluak villagers hunt fox, mink and beaver, and net white fish.¹⁵⁷ (Attachment 58)

Carrie George of Akiachak used a 160-acre parcel (AA-37830) at river mile 89. George used the parcel seasonally starting in 1953 for trapping, hunting, and fishing. The BLM Field Report noted that access to the tract by the applicant was "by boat in summer to pick berries and by snowmachine in fall/winter to trap furbearers and catch fish through the ice."

Natives with allotments on Putu Creek use boats with outboard motors to travel up the Johnson River to river mile 92, at the mouth of Putu Creek (Sec. 32, T. 14 N., R. 71 W., SM) and then up that creek to their allotments. Mary Ekamrak of Akiachak has traveled by boat to her allotment (AA-52707) on Putu Creek since 1948 and Helena George has traveled to her allotment (AA-37833) since 1933. In the late 1990s and early 2000s, Mary Ekamrak and her husband used an 18-foot Lund boat with a 25 to 30-horsepower propeller motor. Her son Daniel has used an 18-foot Lund with a 50-horsepower Honda propeller motor carrying two adults, three children and their camping gear. Her son Willie uses a 22-foot Pacific skiff with 50-horsepower Honda propeller motor. A third son, Peter, used a 24-foot Yukon Raider with a 120-horsepower motor to go hunting up Putu Creek in September, carrying four adults and camping gear. ¹⁵⁸ (Attachment 58)

Daniel P. George of Akiachak began using a parcel (AA-37832) on a left bank tributary of the Johnson River near river mile 88 (Sec. 31, T. 15 N., R. 71 W., SM) in 1952 for subsistence purposes. He first visited the parcel in 1950 when he was three years old as his parents were using it at the time. Since 1952, he has used it seasonally for subsistence from September to November for hunting moose and trapping mink, otter and fox.¹⁵⁹ According to a BLM Field Examination, access to the parcel by George was "probably by riverboat in summer and dog sled or three-wheeler/snowmachine in winter."¹⁶⁰ In 2001, George stated that the last he went to his allotment by boat was several years earlier in September to moose hunt. He used a 22-foot Yukon Raider with 120 horse-power motor and his load included four other adults. They boated past his allotment, but not as far as the Y-K Portage in T. 17 N., R. 63 W., SM.¹⁶¹ (Attachment 58)

John Ekamrak of Akiachak used a 160-acre parcel (AA-37825) at river mile 93. Ekamrak used the parcel seasonally throughout the year starting in 1954 for trapping, fishing, and berry picking. Though Ekamrak claimed use of the land during spring and summer months, the BLM

Field Report only noted that access to the tract by the applicant was "by snowmachine or dog team."¹⁶² A Statement of Witness from Wassillie George Sr. states that a dock or boat landing is present on the land.¹⁶³

Moses Paine of Akiachak uses a 24-foot boat to ascend the Johnson River to river mile 95 to reach his allotment (AA-37838) on a left bank tributary of the river in T. 14 N., R. 71 W., SM. His party usually includes five adults. The left bank tributary is too shallow for his larger boat, so he transfers to a smaller 14- to 16-foot boat with a 40-horsepower motor. Paine is only able to reach his allotment on the left bank tributary by boat in the spring when all the rivers and creeks are flooded after the snow and ice have melted. In the summer and fall, the left bank tributary is too shallow, so he leaves his boat along the Johnson River and walks to his allotment.¹⁶⁴ (Attachment 58)

Mary N. George of Akiachak used an 80-acre parcel (AA-37381-B) at river mile 109. George used the parcel seasonally starting in 1953 for berry picking and wood gathering. The BLM Field Report noted that access to the tract by the applicant was by boat.¹⁶⁵

Mary George of Akiachak started using a 160-acre parcel (AA-31291) at river mile 110 of the Johnson River (Sec. 18, T. 15 N., R. 70 W., SM) seasonally in 1945 for subsistence hunting, fishing, trapping and berry picking. She accessed the parcel, according to the Native Allotment Field Report, "probably by riverboat in the summer and snowmachine and 3-wheeler in the winter."¹⁶⁶

John I. Nicori of Bethel used a 160-acre parcel (FF-19364) at river mile 132. Nicori used the parcel during the fall every year starting in 1957 for fishing and hunting. The BLM Field Report noted that access to the tract by applicant was by snowmachine.¹⁶⁷

Frederick T. George of Akiachak used a 160-acre parcel (AA-37788) at river mile 133. George used the parcel seasonally throughout the year starting in 1937 for hunting, fishing, trapping, and berry picking. The BLM Field Report noted that access to the tract by the applicant was "probably by riverboat in summer and by snowmachine/3-wheeler in winter."

Alexander Isaac of Akiak was born on a 160-acre parcel (AA-37839) at river mile 135 of the Johnson River (Secs. 28, 29 and 32, T. 16 N., R. 69 W., SM) in November 1920 and he claimed use of the land since that time for subsistence activities. He used the parcel each year in the summer to pick salmon berries, in the fall to hunt and in the winter to trap fox, mink, otter and beaver. Improvements included a partially collapsed cabin, which his parents had built in the 1930s, and a tent camp. Access by the applicant, according to a BLM Field Report, was by "boat in summer and skido in winter."¹⁶⁸

Annie Noah of Akiachak and her family began using a 160-acre parcel (AA-50580) at river mile 144 of the Johnson River (Sec. 12, T. 15 N., R. 69 W., SM) in 1927. She lived at the site in a sod house from 1927 until 1936, when she and her family moved to Akiachak. After 1936, she and her children used the parcel seasonally for subsistence fishing, hunting and trapping. Due to poor health, she did not visit the site from 1977 until she died in 1995, but her children continued to use it seasonally. Noah and her children accessed the parcel, according to the Native

Allotment Field Report, "probably by riverboat in the summer and snowmachine/three-wheeler in the winter."¹⁶⁹

Native allotment applicants described which months throughout the year they utilized their parcels. Of the 24 applicants with parcels along the middle Johnson River, no applicants reported using their parcels only during winter months. All applicants reported using their parcels during open water seasons. Travel for subsistence purposes during open water seasons was generally by boat.

Upper Johnson River and Arhymot Lake

There are 30 Native allotment parcels belonging to 26 Alaska Natives along the upper Johnson River from river mile 150 to river mile 240 and along Arhymot Lake and its inlet stream. Native allotment applicants along this portion of the river system were from either Akiachak or from Lower or Upper Kalskag. In general, access to parcels by residents of Akiachak during open water months was by boating down the Kuskokwim River from Akiachak and up the Johnson River. For residents of Upper and Lower Kalskag, access during open water months was through the southern part of the Y-K portage, called Mud Creek portage, which connects Mud Creek with the upper Johnson River. Villagers from Upper and Lower Kalskag boat the uppermost portion of the Johnson River to hunt, fish, pick berries and to reach their Native allotments, generally using 16-foot to 18-foot aluminum boats with 15- to 30-horsepower outboard motors. Sinka Williams, Sr. of Lower Kalskag told a BLM employee that local villagers use these smaller boats because they are easier to pull over the Mud Creek portage, which is about 1.5 miles long. Carl Morgan Sr., of Aniak, said a person would need to bring along a whole crew to help pull the big boats over the Mud Creek portage.¹⁷⁰ Within the BLM Native allotment files, access to the parcels by applicants was only addressed for 9 of the 30 allotments. Of the 9 addressed, only one applicant was reported to only use a dogsled or snowmachine to access his parcel (F-29259-C), with the remaining 8 using a boat during open water periods. Of the 21 allotments for which access to the parcel was not mentioned, 2 of allotments were accessed only during winter months, with the remaining 19 allotments accessed during open water seasons. The allotments for which access was directly indicated within the files are summarized below.

Sinka Williams of Lower Kalskag began using two 80-acre parcels (FF-16023-A and FF-16023-B) on the upper Johnson River at river miles 188 and 196 (Secs. 15 and 22, T. 17 N. R. 65 W., SM), in 1947 with his parents for trapping. His parents used the two parcels before him, and he has used the parcels since 1953 for hunting, trapping and fishing with traps for black fish and pike.¹⁷¹ Williams accessed the parcels in the summer by boat, starting at Lower Kalskag, using the lower part of the Yukon-Kuskokwim Portage, then going down the Johnson River. In recent years, Williams has used two boats to access his parcels. He took a 16-foot Lund with a 30-horsepower outboard motor from Lower Kalskag up Mud Creek, then left it and walked the 1.5 mile portage to the upper Johnson River. There he used the other boat, a 16-foot Lund aluminum boat with a 15-horsepower outboard motor, to go down the Johnson River to his allotment. Williams said he does not hunt bear or moose because he would have to haul the meat over the

portage.¹⁷² Williams also reported that others from Lower Kalskag pull their boat over the portage to access the upper Johnson River.¹⁷³ Though not a Native allotment, Nicolai Sergie of Lower Kalskag has a seasonal camp below Sinka Williams' allotment on the Johnson River at approximately river mile 137. Sergie reaches his camp by snow machine in spring and during the ice-free months with an 18-foot-Lund aluminum boat mounted with a 30-horsepower outboard motor. When berry picking with his family in July, it takes two to four people to drag their boat from Mud Creek to the Johnson River before they can continue downriver to his camp. He does not hunt large game in this area because of the portage.¹⁷⁴ (Attachments 49, 59 and 42)

Lucy Levi of Lower Kalskag used an 80-acre parcel (FF-16018-B) on the upper Johnson River below the Y-K Portage at river mile 205 (Sec. 15, T. 17 N., R. 64 W., SM) for subsistence activities from 1934 until she died in 1993. She used the parcel each year between May and September for fishing and berry picking. Neither her application nor a BLM Field Report indicated how she accessed the land. She also had an 80-acre Native Allotment parcel at the outlet of Arhymot Lake.¹⁷⁵ According to Alex Levi of Kalskag, the Levi family used to go to their spring camp on the Johnson River by dog team and come back to Kalskag by boat. The boat was 20 feet long and made out of lumber. Alex Levi stated that he had not boated the Johnson River since 1982 when he started working.¹⁷⁶ (Attachment 59)

George Moses of Akiachak used an 80-acre parcel (FF-09964-A) at river mile 159. Moses used the land seasonally every year starting in 1934 for berry picking, fishing, and trapping. He used the land during both summer and winter seasons. A Statement of Witness from Eddie Noatak for Moses' Native Allotment Application stated that Moses used the land for "hunting and trapping...for many years, every [sic] since I first started hunting there. During the fall months of November he hunts for mink, muskrats, otter. He also sets traps along the Johnson River for whitefish and pike. He has been using this land for many years during the fall and winter. He still goes hunting and trapping there today. He also hunts for fox, rabbits and ptarmigans during the fall and winter."¹⁷⁷ The BLM Field Report for Moses' allotment listed "boat, dog team, snow machine" as the means of access to the land. Dogs were kenneled on the land until snowmachines replaced the dogs for transportation.

Gulga Luke of Lower Kalskag used an 80-acre parcel (FF-16020) at river mile 183.5. Luke used the land seasonally year-round starting in 1930. He used the area for trapping, hunting, fishing, and wood collection. The BLM Field Report notes the presence of a canoe and an old sled used to portage canoes.

Willie Lee Kameroff of Lower Kalskag used a 160-acre parcel (FF-16347) at river mile 221. Kameroff stated that he used the land "every year from 1967 to present for all the uses listed above [hunting, fishing, wood gathering]. My mother used this land before me and my grandmother and grandfather used it before us and my uncle uses it. We've all been sharing and using it and my mother grandfather said for me to claim it. I even used this land some years before 1967 when I was in school."¹⁷⁸ The BLM Field Report did not mention how Kameroff accessed the parcel, but did note that there was a canoe present on the parcel.

Wassillie M. Kameroff of Lower Kalskag used a 120-acre parcel (F-29259-C) at river mile 227. Kameroff stated that he had "been using this land every year from 1940 to present for the uses

listed above [fishing, berry picking, hunting, and trapping]. I used to fish in a different camp but I had to pick a new fish camp. I was born and raised in Kalskag."¹⁷⁹ The BLM Field Report noted that Kameroff accessed the parcel by snowmachine and, on rare occasions, by hiking.

Theresa Smith of Lower Kalskag used a 105-acre parcel (F-29260) along the northeast shore of Arhymot Lake. Smith used the land starting around 1957 as a fish camp and for berry picking. The BLM field report noted that Smith accessed the parcel by "boat (with portage) and snow machine."¹⁸⁰

Native allotment applicants described which months throughout the year they utilized their parcels. Of the 30 allotments with parcels along the upper Johnson River, only three were reported to have been used during winter months only. The remaining 27 allotments were accessed during open water seasons. Travel for subsistence purposes during open water seasons was generally by boat.

Native Travel on the Johnson River System Documented in BLM ANSCA and USF&WS Documents and State Subsistence Studies

Considering Native village selection areas in the lower Johnson River, BLM employees that visited the Johnson River in the 1970s and 1980s reported that the river was heavily used by local Natives. A BLM realty specialist visited the Johnson River and reported in November 1975 that the river was navigable for barges from its mouth at the Kuskokwim River to the village of Kasigluk. He also reported that local residents made considerable use of the river for subsistence fishing and inter-village travel during the summer season.¹⁸¹ (Attachment 3) On April 7, 1978, a BLM official wrote that the Johnson River was determined navigable to Kasigluk due to "heavy barge travel between May and October up to the village of Kasigluk."¹⁸² (Attachment 60)

After a meeting on January 15, 1976 with residents of Nunapitchuk, another BLM realty specialist described the Johnson River as "a highly significant river for recreation, substance [sic] and general travel in the area." The canal (slough) system between Nunapitchuk and Kasigluk, he added, was "heavily used by both villages for all purposes of travel." He also noted the existence of a water route, involving portages between lakes, from Kasigluk to Baird Inlet by way of Kayigyalik and Takslesluk lakes.¹⁸³ (Attachment 11)

On January 14, 1977, the BLM State Director, in proposing easement recommendations for the village of Atmautluak, described the Johnson River as "one of the most commonly used routes of travel and recreation in the area."¹⁸⁴ (Attachment 61) Later that same year, another BLM official described the Johnson River in the Atmautluak selection area as "waters having highly significant present recreational use."¹⁸⁵ (Attachment 62) Following a series of meetings in Nunapitchuk, Atmautluak, and Kasigluk in early 1979, another BLM employee reported that the river was heavily traveled to and between the villages and to public lands and other waterways. In addition, he noted, the river was "a main access route to the Yukon River."¹⁸⁶ (Attachment 16)

During a meeting at Nunapitchuk village with BLM officials on March 27, 1980, village corporation leaders told BLM officials that during the summer months, residents of Nunapitchuk and Kasigluk, mostly those from Kasigluk, made as many as ten trips a week to Nunavakpak Lake, utilizing the West Fork of the Johnson River, transporting supplies to camps on the lake in preparation for the winter trapping season. In addition, local residents used skiffs on several lakes and sloughs south of Nunavakpak Lake in connection with subsistence activities. These boats ranged from 20 to 30 feet in length and were powered by outboard motors.¹⁸⁷ (Attachment 63) When the BLM issued its draft final easements for the Atmautluak village selection area, the document described the Johnson and Pikmiktalik rivers as "major" waterways. The memorandum added:

These rivers provide the primary intervillage surface transport route between the nearby villages to public waterways and to public lands. They are used by visitors to the villages as well as the local inhabitants for intervillage travel, movement of supplies and equipment and the gathering of resources.¹⁸⁸ (Attachment 64)

On April 18, 1980, a BLM official noted the existence of several camps and a grave site on Nunavakpak Lake and the slough linking the lake with Johnson River, adding that travel on the route was "similar to traffic between villages." The official noted that the existence of seasonal camps along the slough entering Nunavakpak Lake in Sec. 26, T. 8 N., R. 76 W., SM and the lake and slough system entering Nunavakpak Lake in Sec. 27, T. 8 N., R. 76 W., SM, indicated use of the waterways as a water route of travel.¹⁸⁹ (Attachment 18) A representative of Nunapitchuk claimed that an unnamed lake and interconnecting sloughs in Secs. 33 and 34, T. 10 N., R. 74 W., and Secs. 3-5, 8-10, T. 9 N., R. 74 W., SM, constituted "a link in an important waterway between the villages of Nunapitchuk and Atmautluak." The same individual claimed that an unnamed lake in Secs. 3, 4, 9, and 10, T. 9 N., R. 74 W., SM was "by its physical characteristics and historical use . . . a body of water navigable in fact and law."¹⁹⁰ (Attachment 22) According to officials of Calista Corporation, ten to fifteen local boats crossed the two lakes each day during the open season in connection with travel between Nunapitchuk and Atmautluak. Nunapitchuk residents used the unnamed lake and interconnecting slough south of Nunavakpak Lake for subsistence purposes. These waterbodies are located in Secs. 27-33, T. 8 N., R. 76 W.; Secs. 25-26, 35-36, T. 8 N., R. 77 W.; Sec. 1, T. 7 N., R. 77 W; and Secs. 4-6, T. 7 N., R. 76 W., SM.¹⁹¹ (Attachment 65)

Villagers from Akiachak traveled by boat up the lower Johnson River to Atmautluak and to seasonal camps along the Pikmiktalik River. A BLM realty specialist noted in December 30, 1980 that "normal [water] craft" for the Atmautluak selection area "range in length from 16'-30' and are powered by outboard motors from 25-115 hp." The Atmautluak selection area, which included the lower Johnson River and the Pikmiktalik River, "is used heavily by people from both Atmautluak and Akiachak.... The water bodies are also utilized for fur hunting and trapping and the associated transportation of goods and supplies."¹⁹² (Attachment 66) Another BLM employee noted in early 1981 that the use of lineal waterways in the southern portion of the Atmautluak selection area, including the lower Johnson River, "during periods of storms by craft capable of carrying in excess of 1,000 pounds to the village of Atmautluak is indicative of their

susceptibility to commerce, if not navigability in fact." Use of the lower Johnson and Pikmiktalik rivers by people from Akiachak to access "seasonal camps and native allotments in craft capable of carrying in excess of 1,000 pounds indicates the navigability in fact of the subject [Pikmiktalik] river." Use of a channel "from the Johnson River through lakes and a channel to reach the Pikmiktalik River and fall camps in the northerly and northwesterly area of the selection and thence northerly on the Pikmiktalik River to reach the area used by Akiachak villagers... is indicative that this route is navigable in fact."¹⁹³ (Attachment 67)

While reports in the 1970s and early 1980s focused on use of the lower portions of the Johnson River System, ADF&G studies and BLM interviews with residents of the region in the late 1980s and later demonstrate use of the upper portion of the Johnson River as a transportation corridor. In a six-year study of land and resource use by villagers from Nunapitchuk, Kasigluk and Atmautluak, Elizabeth Andrews of ADF&G wrote: "Moose hunting in the fall 1983 by Nunapicuarmiut (villagers from Nunapitchuk) took hunters north and east of the village up the Pikmiktalik, Kvichavak and Johnson rivers to their headwaters and adjacent lakes and tributaries." A map showing moose and bear hunting areas along the Johnson River extended as far as the villages of Lower and Upper Kalskag. Residents of Nunapitchuk, Kasigluk and Atmautluak referred to the upper reaches of Johnson River as "Kuicaraqu, the way to go to the river," in both the open and frozen state to reach the lower Yukon river near Russian Mission. Andrews also reported that people from Akiachak typically joined their Akulmiut relatives to moose hunt in the fall on the upper Johnson River. In spring they hunted muskrat.¹⁹⁴ (Attachment 42)

Akiachak villagers, who traveled by boat down the Kuskokwim River and up the Johnson River to their allotments to hunt and pick berries, told a BLM interviewer that they had a name for the residents of Nunapitchuk, Atmautluak and Kasigluk who hunted along the middle portion of Johnson River. Daniel P. George (AA-37832 at river mile 88) and Fred A. George (AA-51109 at river mile 88) referred to them as "tundra people," noting that these people boated up the river to hunt moose upstream of the two brothers' allotments.¹⁹⁵ (Attachment 58)

The BLM interviews also document travel on the upper Johnson River by people from various villages in the region. Residents of lower Kalskag reported in 1988 and 1989 that the Johnson River has been boated both above and below the mouth of Crooked Creek.¹⁹⁶ (Attachment 44) Patrick Peter of Akiachak stated in 2001 that he uses a 22-foot Yukon Raider with a 90-horsepower motor to travel on the Johnson River. He carries a 12-foot skiff for emergencies or to boat shallower waters. He travels by boat from Akiachak down the Kuskokwim and up the Johnson River to the Y-K Portage in the spring and in mid-July to pick berries. At least five people accompany him on these trips, which last about a week. He described the river as deep from its mouth to the Y-K Portage.¹⁹⁷ (Attachment 58) Nicolai Sergie of Lower Kalskag stated in 2000 that in the fall, when the Johnson River is high, villagers from Kasigluk, Nunapitchuk and Atmautluak use big boats to come up the Johnson River to hunt moose near Arhymot Lake.¹⁹⁸ (Attachments 49 and 59) Sinka Williams of Lower Kalskag, who has a hunting camp on the upper Johnson River below the confluence with Crooked Creek, stated in 2001 that "down river people" from Kasigluk, Nunapitchuk and Atmautluak hunt moose and bear in September near the headwaters of Johnson River and Arhymot Lake. He referred also to these people, who

traveled up the river to the Lower Kalskag selection area as the "lower tundra people."¹⁹⁹ (Attachments 49 and 59)

Mike Pavilla of Atmautluak told a BLM interviewer that most people from Kasigluk, Atmautluak and Nunapitchuk, called tundra villagers by others, traditionally hunt moose near the upper reaches of the Johnson River close to Arhymot Lake between the first and third week of September. The river's depth depends on the amount and frequency of snow, rain and south winds. Beginning in 1996, the area experienced a drought and during the fall of 1999 he was forced to turn around before he reached Lucy Levi's allotment in Sec. 15, T. 17 N., R. 64 W., SM. He was using an 18-foot aluminum Lund powered by a 40-horsepower Evinrude propeller motor. His load included three adults, camping gear and gas. Pavilla said during high water, it took them two days by boat to reach Arhymot Lake from Atmautluak.²⁰⁰ (Attachment 58) On one occasion during a drought year, the river became too shallow and he hit bottom, then turned back. Most villagers, Pavilla said, don't use their bigger boats and motors on the upper reaches of the Johnson River because the shallow water and grass can break the motor's lower units and because the banks erode more easily during high water. The villagers, he said, are starting to use smaller boats. It takes on average, he said, two days' travel from Atmautluak in high water up the Johnson River to reach as far as Arhymot Lake. When asked in 2000 if he took a five yearaverage, how many times could one boat up the Johnson River to Arhymot Lake, Pavilla said the Johnson River has been low for the last four years and village people haven't been able to boat this far, but traditionally this area is good to hunt moose and bear.²⁰¹ (Attachment 49)

As is evident from information within Native allotment files, the Johnson River System is used by residents of villages outside of the Johnson River area for some subsistence harvest activities. An ADF&G Subsistence Report on the subsistence harvest of resources in Akiachak, a village approximately 35 miles east of Nunapitchuk along the Kuskokwim River, indicated that residents traveled throughout the Johnson River System (Figure 21). Akiachak residents traveled to the Johnson River System to harvest non-salmon fish, small land mammals, waterfowl, and plants and berries. Boats and snowmachines or ATVs, depending on the season, are the primary means of travel throughout the subsistence harvest area for Akiachak residents. Though some harvest activities, such as small game hunting and trapping, take place through the winter, all activities are carried out during the open-water seasons, when boat transportation is used.²⁰²

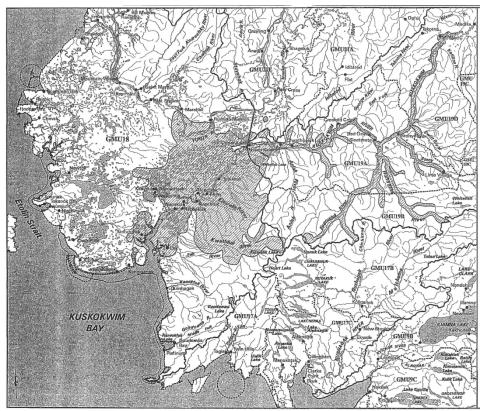


Figure 21. Areas used by Akiachak residents for subsistence hunting, fishing, and gathering, 1988-1997. Source: ADF&G Subsistence Report, *The Subsistence Harvest and Use of Wild Resources in Akiachak, Alaska, 1998*, TP No. 258, p. 157.

Yup'ik elders from Russian Mission described native people in that area of the Yukon River as having a "humble" relationship with the *Akulmiut* along the Johnson River, and other neighboring native groups. The relationship was characterized this way because the groups have traditionally allowed each other to gather resources within each other's areas. An ADF&G report on patterns of resource use in the Russian Mission area traces this contemporary relationship among these native groups back to intermarriage between natives of the lower Yukon River (*Kuigpagmiut*) and Kuskokwim River (*Akulmiut* and *Kusquqvagmiut*) in the early nineteenth century. This history of interaction between the groups affected demographic distribution during the early twentieth century centralization of natives within larger villages. Areas along the Kuskokwim, such as Lower Kalskag, became the place of residence for some *Kuigpagmiut* from the lower Yukon River. Settlement patterns and resource sharing among the groups have led to increased inter-village travel, which utilizes the Yukon-Kuskokwim portage area, including the Johnson River System.²⁰³

In addition to inter-village travel, the historical relationship between the natives of the Yukon, Johnson, and Kuskokwim rivers has led to inter-village collaboration in resource harvesting. Hunting parties often include members – relatives and friends – from villages along the other rivers.²⁰⁴ Hunting parties and individual residents from Russian Mission use the portage area between Yukon and Kuskokwim rivers, which includes portions of the Johnson River System for

hunting, trapping and fishing (Figure 22).²⁰⁵ Boats and snowmachines or ATVs, depending on the season, are the primary means of travel. At the time of the ADF&G study, most boats were homemade wooden skiffs between 18 and 23 feet in length with some households owning aluminum boats.

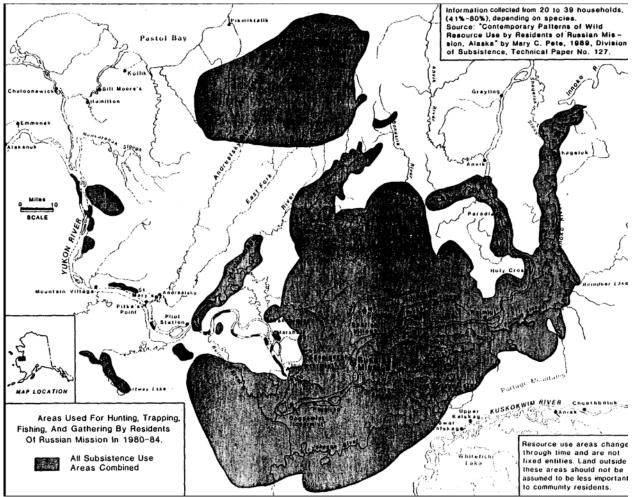


Figure 22. Areas used for hunting, trapping, fishing, and gathering by residents of Russian Mission in 1980-1984. Source: ADF&G Subsistence Report, *Contemporary Patterns of Wild Resource Use by Residents of Russian Mission*, Alaska, TP No. 127, p. 87.

The *Akulmiut* of the Johnson River were active frequent travelers to the regions surrounding them. They regularly engaged in inter-village travel, trade, settlement patterns and collaboration in resource gathering with the *Kusquqvagmiut* of the lower Kuskokwim River, *Kuigpagmiut* of the lower Yukon River, and the Yup'ik Eskimos of the Baird Inlet-Aropuk Lakes area. Travel to neighboring regions was accomplished by the systems of portages extending from the Johnson River. The two main portage systems used to access other regions from the Johnson River are the Yukon-Kuskokwim portages on the upper Johnson River and the Tevyar'aq portage, accessed via the lower Johnson. These portages have been in use from before contact with Russians in the late eighteenth and early nineteenth centuries to the present.

Portages Utilizing the Johnson River System

Upper Johnson River System: Yukon-Kuskokwim Portages

There are two summer portages within the Yukon-Kuskokwim portage area that utilize sections of the Johnson River System: the Russian Mission Portage and the Paimiut Portage. The portages, along with a network of trails between the two rivers, were used by Native travelers prior to Russian contact and continue to provide an access route for travelers in the Yukon-Kuskokwim Delta region.

From the Yukon River, the portages utilize two different sections of the Johnson River System, coming together at river mile 233 of the Johnson River before continuing to the Kuskokwim River through a portage between the Johnson River and Mud Creek, which connects with the Kuskokwim River at Lower Kalskag. The Russian Mission Portage, entering the Johnson River System from the northwest, utilizes 11 miles of the Johnson River from its confluence with Crooked Creek at river mile 222 to the Mud Creek portage at river mile 233. The Paimiut Portage, which enters the Johnson River System north of Arhymot Lake, utilizes the Arhymot Lake inlet stream, Arhymot Lake, and river miles 233 to 240 of the Johnson River (Figure 23).

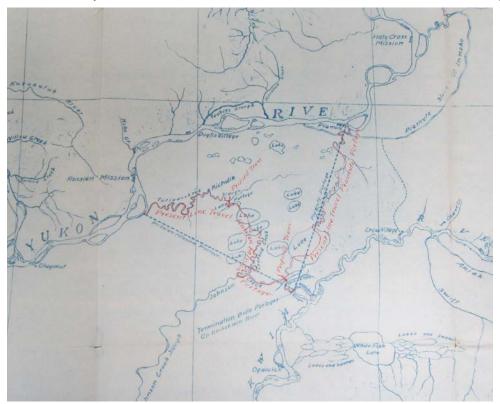


Figure 23. Detail of the Russian Mission and Paimiut Portage routes hand drawn on a 1924, Corps of Engineers map, "Yukon Kuskokwim Portage showing vicinity map of Alaska and local area Yukon Kuskokwim land portage." Found in Box 37, Records of the Bureau of Public Roads, Alaska Road Commission (RG 30), NARA, Anchorage, AK.

The Russian Mission portage, commonly referred to as the Yukon-Kuskokwim portage, was used by Alaska Natives for subsistence activities and for inter-village travel prior to contact with the Russians. In the Russian period, the portage was used by Russian traders for many years before Lieutenant L. A. Zagoskin made the first written account the portage route during an investigation on behalf of the Russian-American Company. Zagoskin, along with a small party of men, examined the portage route by kayak in June, 1844. During their journey, Zagoskin's party saw about 10 groups of Native dwellings along Crooked Creek. In addition to fishing and other hunting activities, the Natives used the area for its abundance of otter, muskrat, and beaver along the many tributaries. Furs from these animals were collected by Russian traders.

Zagoskin's recommendations to the Russian-American Company resulted in the company's adopting the route for the transportation of supplies and trade goods, which undoubtedly increased the traffic along the portage. Zagoskin's investigation was the first in what would be a long line of investigations of the portage's potential as a transportation route for trade and commerce.

After the purchase of Alaska in 1867, the Russian Mission portage continued to be used by fur traders into the American period. In addition to traders and continued Native use, prospectors and adventurers are known to have used the portage during the early American period. The portage journey was generally made by kayak or canoe. At that time, a reliable route description was not yet in circulation. That changed in 1898 when the United States Geological Survey (USGS), recognizing the commercial potential of the portage, sent a group along with the expedition of Josiah Edward Spurr, a geologist with the USGS, to document the portage during Spurr's journey down the Kuskokwim River. The group consisted of A. E. Harrel, F. C. Hinckley, a trapper named Madison, and Dr. J. H. Romig, a Moravian missionary doctor in the area. That trip produced a detailed description and sketch map of the route, which was made available in print. Based upon the information collected during Spurr's expedition, the USGS considered a canal between the Yukon and Kuskokwim rivers to be desirable to reduce the costs of freighting in the region, saving around 320 miles in transporting goods to the Yukon River valley.²⁰⁶

The canal project did not come to fruition; however, the print circulation of the route description and map facilitated use of the portage by those coming to the region. Following gold strikes in the Kuskokwim region, a 1908 Nome newspaper reported that the route already had as many as 200 men using the portage at the time and that the number was expected to increase on account of the gold strikes.²⁰⁷ Commerce in the region was further aided by the appointment of postmaster Adolf Stecker (also a Moravian missionary) in Bethel in 1905. By 1910, Anton Eide, in a reconnaissance trip to the area, reported that the mail route came through the portage area. Eide also reported that some people crossing the portage from the Yukon would descend the Johnson River instead of making the Mud Creek portage, ending up on the Kuskowkim River below Bethel. This was also the route used by mail carrier Oscar Samuelson who, traveling in a thirty foot boat with a motor, made stops at Johnson River villages along the way.²⁰⁸

The volume of traffic and the mail route over the portage prompted the Alaska Road Commission (ARC) to seek improvements to portages between the Yukon and Kuskokwim rivers. As early as 1908, the ARC proposed dredging and straightening creeks along the Russian

Mission portage. However, funding for projects on the portage was not obtained until the early 1920s. Major James G. Steese, who was both the president of the ARC and the district engineer at that time, advocated for improvements to the portage. He made his own journey through the Russian Mission portage, which was referred to in correspondence as "the Poling Boat Portage," with a party of five men, including two Indian helpers. They made the portage with a 32-foot poling boat with an Evinrude motor and one kayak.²⁰⁹

In 1922, the ARC contracted with Oscar Samuelson to provide a sketch map, suggest improvements for the Russian Mission portage, and to stake route. Partly based upon Samuelson's responses, a sketch map of the portage was drawn up in 1922. Though the map shows only the Russian Mission route, added remarks mention that "there are several other portages besides this one."²¹⁰ When Steese obtained funds for a feasibility examination of the Yukon-Kuskokwim portage area for a waterway improvement project, he directed Walter W. Lukens, the ARC's district superintendent, to investigate both the Russian Mission and Paimiut portages.

Lukens visited the portages during the fall of 1923 and submitted a report on possible improvements that winter. In his report, Lukens made several suggestions for improving both routes, including clearing brush from creeks, damming some of the creeks, building trams for some of the portages for U.S. mail, small amounts of express, freight and baggage, and many small boats crossing the portage, and constructing shelter cabins.²¹¹ In a report to the district engineer, Lukens recommended that the Paimiut portage, rather than the Russian Mission portage, be improved if a canal project were to be undertaken. Though the Russian Mission portage had been the most extensively studied and publicized, Lukens noted that the Paimiut portage was more centrally located and was the customary route of travel between the rivers. The mail carrier was the primary user of the Russian Mission portage.²¹² Steese approved several of Lukens' recommendations, including the construction of shelter cabins along both portage routes. However, due to trouble obtaining funds, the projects were not started until a few years later in 1926, when the shelter cabins were constructed.

Locals continued to petition for a tram system between the Yukon and Kuskokwim rivers. In response, the ARC continued to study the possibility of such a tram. It was not until the spring of 1929 when a territorial bill authorized the construction of a tram system for the Russian Mission portage. Construction of the tram commenced that summer, and by August, the Fairbanks News-Miner reported that progress on the portage was going well and that, once complete, the portage could be crossed in less than 12 hours without the need to unload boats to load them on trams.²¹³ Two trams and a canal were completed on the Russian Mission portage by 1931, the southernmost tram also serving the Paimiut portage.²¹⁴

The Russian Mission portage was maintained until World War II, after which few repairs were made to the route by government agencies. The State of Alaska, as early as 1959, expressed interest in improving the Russian Mission portage as a canal route and requested that the U.S. Corps of Engineers survey and construct a canal. Additionally, the U.S. Bureau of Indian Affairs prepared a report to provide Natives with guidance on how to reconstruct the tramways. During the summer of 1969, Natives made some improvements to the portages, repairing trams and working on one of the dams. They were not able to complete all the needed repairs without

assistance from the Corps, and they made suggestions to the Corps for further improvements. Local Natives argued that the improvements would facilitate inter-village travel between the Yukon and Kuskokwim rivers, provide improved access to hunting, fishing, and trapping grounds, and allow lower Yukon residents to travel to Kuskokwim villages to purchase supplies since they were cheaper there. The Corps conducted an investigation of possible improvements to the waterway in the late 1960s and released a report of its findings in 1971. The Corps determined that the cost of a project was not justified by the economic conditions of the region.²¹⁵ Despite the deteriorating conditions of the Yukon-Kuskokwim portage system due to lack of maintenance and repairs, the portages continued to be used by travelers boating in the region.

Lower Johnson River System: Tevyar'aq Portage System

Tevyar'aq, which means "place to portage" in Yup'ik,²¹⁶ is a traditional portage along the main route of travel between the tundra villages of the Johnson River area and the coastal communities of Nelson Island. Many Native elders remember hauling wooden boats across the portage by hand before the introduction of mechanized travel. A September 2007 article from *Ellamta Elucia: Inside Our World*, a periodical of the Lower Kuskokwim Resource Conservation and Development Council, on proposed improvements to the portage stated that "Tevyraq remains today an important means for connecting communities to one another and to subsistence resources."²¹⁷

Today, Tevyar'aq (sometimes spelled Tevyraq) portage includes an existing wooden boat-tram portage facility, approximately 450 feet long, known as the Tevyar'aq Railway Tram.²¹⁸ The Tevyar'aq portage tram is located approximately 14 miles northwest of Kasigluk, within the water system between Kayigyalik Lake and Takslesluk Lake (Figure 23). A 2012 Cultural Resources Report identified Tevyar'aq as "a key element along an approximate [sic] 100-mile-long traditional subsistence route, which traverses lakes, rivers, and sloughs."²¹⁹ The tram is used mainly by residents of Kasigluk, Nunapitchuk, and Atmautluak, along the lower Johnson River System, and Nelson Island Villages near the western terminus of the route. According to the Cultural Resources Report, the tram allows for:

a connection between villages and eliminates the need for travelers to take a longer and more precarious route out of the Kuskokwim River delta and along the open waters of the Bering Sea. Subsistence living is both economically and culturally important to the villages and the route provides access to coastal and river subsistence harvest areas for fish, birds, marine mammals, grasses, and other resources. Resources along the route consist of a wide variety of wildlife and vegetation including salmon, whitefish, moose, caribou, bear, rabbits, waterfowl, ptarmigan and well as [sic] berries, reeds, and grasses for basket making.²²⁰

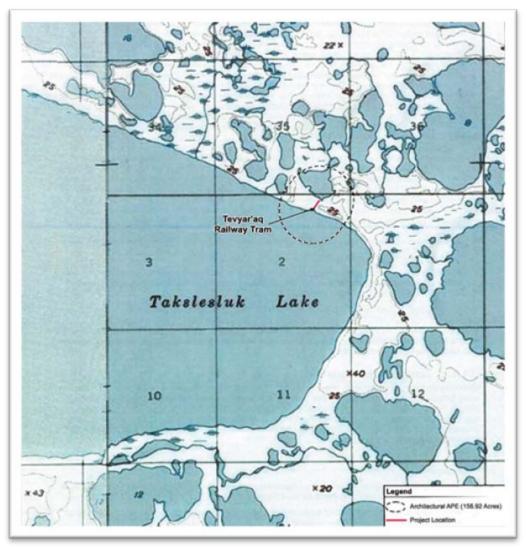


Figure 24. Location of Tevyar'aq railway tram. Source: Atkins, Cultural Resources Report, p. 6.

Eli Wassillie, a tribal administrator for the village of Nunapitchuk, stated in an online article in *News From Indian Country* that traditionally "Yup'ik trappers from inland villages took boats to the Baird Inlet and nearby areas to trap for otter, beavers and other animals some 50 air miles from Nunapitchuk and much farther by water."²²¹ Regarding current use of the tram, Wassillie stated that after "spring snowmelt fills the creeks and sloughs, boaters from the village [Nunapitchuk] of 550 and other inland communities journey along the tram route to subsistence hunt for ducks, pick berries and fish for pike at Baird Inlet."²²² The route is also reported to be used in the fall for moose hunting. Wassillie also noted that residents of several Nelson Island villages at the route's western end travel along the route "for cheap shopping in the hub city of Bethel."²²³ Residents of *Akulmiut* villages routinely use riverboats with outboard motors to travel through the portage system (Figure 25).



Figure 25. In September of 2010 Debbie Michael, her two daughters Julie and Lynn, and Daniel Bill made a trip by boat from Bethel to Baird Inlet and back via the Johnson River, Tevyar'aq portage, and the Takslesluk-Kayigyalik Lake System. The group made the trip in the fall in order to pick berries and travelled in an 18-foot aluminum Jon boat with an outboard motor.¹ Daniel Bill had traveled the route to Baird Inlet many times in the spring, but this was his first trip across the portage in the fall. Local users stated that the tram was constructed around 1945. There are conflicting reports that the tram was built by fur traders in the 1940s or by the Bureau of Land Management in the 1950s.²²⁴ The land on which the tram sits is owned by Nunapitchuk, LTD, Native Corporation, and the Village of Nunapitchuk has agreed to provide an easement for the tram (Figure 26).

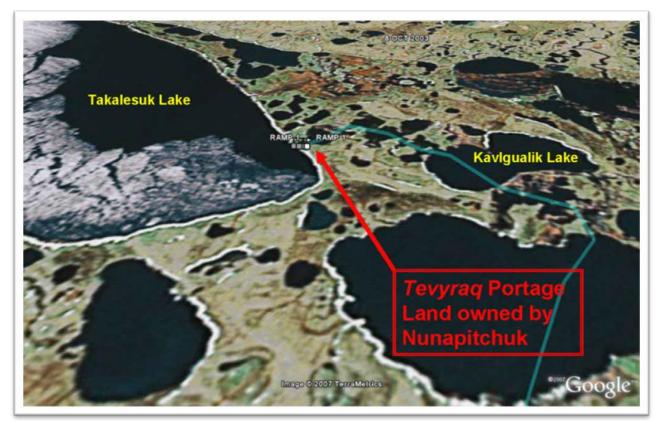


Figure 26. Location of Tevyar'aq tram, showing portage to Takslesluk Lake through Unnamed Lakes #4, #5, #3 (labeled as Kavlgualik lake), #6 and #7. Source: Tevyar'aq tramway condition report by Edward Nicholai & Ryan Maroney, Sept. 9, 2007.

The Western Federal Lands Highway Division (WFLHD) of the Federal Highway Administration (FHWA), in cooperation with the Denali Commission, has proposed to reconstruct the Tevyar'aq Railway Tram. Atkins, a consulting agency, wrote a cultural resources survey report in 2012. On January 11, 2013, the Department of Transportation issued a solicitation for contractor bids for the Tevyraq Railroad Tram project (AK DEN 2009(13)). The contract for repairs to the tram was awarded to Carpenter Contracting Inc. on February 22, 2013 with a tentative completion date of fall 2013.²²⁵

In July of 2003, Ted Horner of Bethel made a round-trip journey that utilized both the Tevyar'aq and Yukon-Kuskokwim portages, which he wrote about in *The Delta Discovery*. (Attachment 68) Horner made his journey in a 16-foot aluminum Jon boat with an outboard motor from Bethel, through the Tevyar'aq portage, to Baird Inlet and back up the Yukon River, through the Yukon-Kuskokwim portage, down the Johnson River, and then back up the Kuskokwim, returning to Bethel (Figure 27).



Figure 27. Ted Horner's boat trip route. Source: "Completing the Circle of the Delta," *The Delta Discovery*.

The trip was approximately 800-miles. Never having traveled the route from Johnson River to Baird Inlet, Horner sought advice about the route from Mike Rearden, Robert Sundown, and Earl Atchak. Travelling alone with a fully-loaded boat, Horner described the route to the Tevyar'aq portage as "a complicated route through many small and large lakes connected by tiny hidden sloughs." Horner described it as a "simple matter" to load his boat onto the tram and transport his boat along the tram (Figure 28). However, due to the low water level of the lake at that time, Horner found that at the exit ramp there was "100 feet of mud separating the ramp from the edge of the lake." He had to use a come-along that he had included in his gear to get the boat into Takslesluk Lake. Travelling through Kaghasuk Lake to Baird Inlet, Horner did not report any further difficulties with this portion of the trip.²²⁶

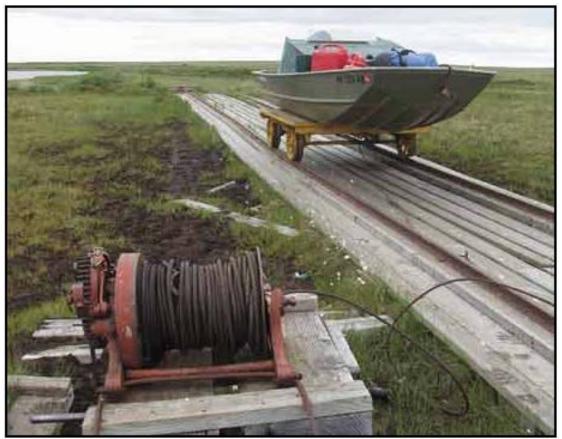


Figure 28. Ted Horner's boat on the Tevyar'aq tram. Source: "Completing the Circle of the Delta," *The Delta Discovery*.

In order to assist with the trip through the Russian Mission portage, Horner arranged for Joe Kozevnikoff to join him at Russian Mission to help make the portage. Kozevnikoff regularly used the portages between Yukon and Kuskokwim. Also joining Horner's trip to provide assistance were three of Kozevnikoff's grandchildren, Robert, Marianne, and Gary. The five passengers, provisions, and 30 gallons of extra fuel for the 25 horsepower outboard motor had Horner's boat riding low in the water. The second half of the trip, from Russian Mission to Bethel, took three and a half days.²²⁷

Horner reported that the first tram was heavily overgrown with grass but still usable. However, he used his own come-a-long in addition to the two-handled winch on the tram platform to hoist the boat onto the tram. (Figure 29). Despite having been assured that the water level in the lakes was high, Horner found water levels to be very low at the time, the lowest Kozevnikoff had ever seen, making portages between water bodies more difficult. Because of the dry conditions, the portage to Kulik Lake had to be made across dry tundra with the assistance of small poles the group gathered along the way to use as rollers. Since Kulik Lake was also very low, the poles had to be used to get the boat across the lake itself, as well (Figure 30).

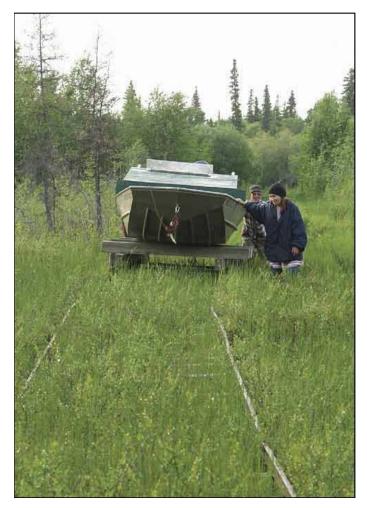
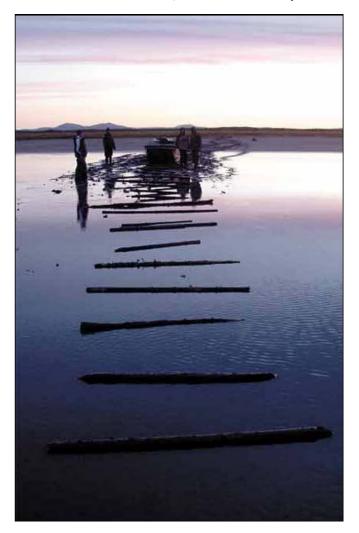


Figure 29. Joe Kozevnikoff and Marianne pushing boat along the first tram on the Russian Mission Portage with assistance of a manual winch. Source: "Completing the Circle of the Delta," *The Delta Discovery*.

Figure 30. Crossing Kulik Lake with the assistance of poles gathered to use as rollers. Source: "Completing the Circle of the Delta," *The Delta Discovery*.



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Once the group made it to the portage lake forming the headwaters of Crooked Creek, they stopped for the night before continuing on to the Johnson River. The next day they travelled down Crooked Creek, which Horner reported as choked with grass and having many beaver dams. After 9 or 10 hours, they reached the Johnson River, where the underwater grass thinned out and they were able to run the boat at top speed. After spending the night in a cabin along the Johnson River, Horner and his crew traveled down the Johnson River to refuel at Nunapitchuk before heading on to Bethel. On the trip down the Johnson River they encountered Adrian Tobeluk and his family from Nunapitchuk. Tobeluk escorted Horner from the Johnson, through Nunavakanukakslak Lake, to Nunapitchuk, where Horner refueled before continuing down the Johnson River to the Kuskokwim and up to Bethel, completing the journey. In an editorial footnote, Horner expressed the need for maintenance on the portage, stating that

it is sad to see the declining use and deteriorating condition of these portage facilities that once provided such a vital transportation and cultural link between areas of our region. With millions begin proposed and spent on roads, highways and other transportation systems – it would be a true service to the region to repair and upgrade these portage links for the benefit of all.²²⁸

VI. Summary

Significant portions of the lower Johnson River System, including Nunavakanukakslak Lake, the West and North Forks, the East and West Channels, Unnamed Lake #1, Unnamed Lake #2, Kayigyalik Lake, and the mainstream Johnson River itself, were determined navigable by the BLM within land selections. A 1979 memo considered the Johnson River System non-navigable upstream of the villages of Nunapitchuk and Kasigluk, but in determinations that followed it was determined to be navigable. Nunavakanukakslak Lake was determined navigable in 1980, 1981, and 2007. The West Fork of the Johnson River up to the village of Kasigluk has been determined navigable by the BLM since 1975, and the full length of the West Fork was determined navigable in 1976, 1977, 1979, 1982, and 2007. The North Fork of the Johnson River was determined navigable in 1980, 1988, and 2007. The West Channel of the Johnson River was determined navigable in 1980, 1982, and 2007. The West Channel of the Johnson River was determined navigable in 1980, 1982, and 2007. The West Channel of the Johnson River was determined navigable in 1980, 1982, and 2007. The West Channel of the Johnson River was determined navigable in 1980, 1982, and 2007. The West Channel of the Johnson River was determined navigable in 1980, 1982, and 2007. The West Channel of the Johnson River was determined navigable in 1980, 1982, and 2007. The West Channel of the Johnson River was determined navigable in 1980, 1982, and 2007. The West Channel of the Johnson River was determined navigable in 1980, 1982, and 2007. Unnamed Lake #1 was determined to be navigable in 2007. Unnamed Lake #2 was determined navigable in 1980 and 2007.

The BLM determined the Johnson River and associated sloughs and lakes to be navigable in connection with travel trade and commerce in the Nunapitchuk selection area in 1980 and 1982, in the Atmautluak selection area in 1981, and in the Napakiak and Kasigluk selection areas in 1982. The sum of these BLM navigability decisions resulted in determining the Johnson River and nearby lakes and sloughs navigable from the river's mouth upstream through river mile 62 (through Sec. 4, T. 11 N., R. 73 W., SM) (see Figure 8 on page 39).

River miles 132 to 137 of the middle Johnson River were determined to be non-navigable within a memorandum on final easements for the village of Ohogamiut in 1982. Seven years later, in 1989, these river miles were determined navigable in a memorandum on navigable waters

covering the Johnson River. The BLM determined the Johnson River navigable in select areas in the middle reaches of the Johnson River in the late 1980s and early 1990s during adjudication of Native allotments. The Johnson River was determined navigable in Native Allotments AA-50580 (river mile 143) and F-14181 (river mile 144) in 1988, and reconfirmed in 1990 and 2002. Various lakes and sloughs just north of Nunapitchuk were determined navigable in 1989 where they crossed Native allotments. In 1990, the BLM determined the Johnson River navigable in a Native allotment at river mile 116 (AA-31291) and at regional historic village sites at river mile 115 (Makitaq) and 118 (Awuiyoqlleq) using the criterion of "boats with a load capacity of about 1,000 pounds." The BLM determined the Johnson River navigable in a Native allotment at river mile 204 (FF-016018-B) in 2000, in Native allotments at river mile 103 (AA-37832) and river mile 187 (FF-16023-A) in 2002. Each of these navigability determinations was based on "susceptibility for use as a route for travel, trade and commerce." In 2004, the BLM determined the Johnson River navigable in T. 15 N., Rs. 68, 69 and 70 W. and in T. 16 N., R. 69 W., SM (from river mile 112 to river mile 157.5), based on previous navigability reports dated June 13, 1990 and August 29, 2002. That decision meant that the river was navigable through four additional Native allotments (FF-19364, AA-037839, AA-37788, and FF-14182) along this stretch of the river (see Figure 7 on page 38).

The BLM determined the upper reaches of the Johnson River in the Upper Kalskag village selection, between river miles 223 and 240, navigable during 1983, 1984 and 1989 as part of the Y-K Portage (in Tps. 17 N. and 18 N., R. 63 W., SM). The upper Johnson River from river miles 150 to 223 have been consistently determined navigable through Native allotments beginning in 1989.

Arhymot Lake has been consistently determined navigable beginning in 1982. The Arhymot Lake inlet stream was initially determined to be non-navigable along with other waterbodies throughout conveyance areas for The Kuskokwim Corporation and Upper Kalskag, Inc. in 1982. The stream was determined navigable through a Native allotment in 1989 (see Figure 6 on page 37).

The Johnson River System, which comprises the Johnson River, Arhymot Lake and its inlet stream, Nunavakanukakslak Lake, and two unnamed lakes south of Kayigyalik Lake, appears to be in its natural and ordinary condition since the time of statehood.

The Johnson River System has a long history of use. In the historic period prior to statehood, the earliest known users were the inland *Akulmiut*, the *Kusquqvagmiut* of the Kuskokwim River, and the *Kuigpagmiut* of the lower Yukon River, who lived and traveled within the Johnson River System and regularly engaged in subsistence activities throughout the area.

The lake system in the lower Johnson River was also a major route of inter-village travel for Yup'ik Eskimos of the Yukon-Kuskokwim Delta, providing an inland route between the Johnson River and the Baird Inlet. Travelers and subsistence users along the lake system traditionally used kayaks or large skin boats when traveling. The *Akulmiut* engaged in an annual cycle of subsistence activities which revolved around several semi-permanent seasonal camps for smaller family groups and a winter village where larger groups lived in close proximity for the winter season. Subsistence activities included hunting larger game, hunting and trapping of furbearers,

fishing, berry and plant harvesting, and waterfowl drives. Native residents used some of the resources for sustenance and distributed the rest for ceremonial, sharing, and partnership activities, as well as for trade and commercial exchange throughout the region. During the open water seasons, the *Akulmiut* used kayaks and large skin boats to transport themselves, subsistence hunting gear, and their harvested resources between seasonal camps and the winter village as well as to villages throughout the Yukon-Kuskokwim Delta for trade and exchange purposes. In the early to mid-nineteenth century, Russian traders established several trading posts within the Yukon-Kuskokwim Delta. These trading posts hired traders, many of whom were Natives, to travel throughout the Yukon-Kuskokwim Delta to obtain furs from Native trappers and hunters. The Johnson River System was home to many furbearing animals and became a major source of furs harvested in the area. By the mid-1920s, the *Akulmiut, Kusquqvagmiut*, and *Kuigpagmiut*, all of whom utilized the Johnson River System, began to incorporate motorized boats and equipment from the commercial fishing industry in the area. This transition began with attaching sails to traditional boats, and, by the 1930s, wooden planked boats with small outboard motors were adopted throughout the Yukon-Kuskokwim Delta region.

Of the fifty-six Native allotments along the middle and upper Johnson River System, the BLM files document how the parcels were accessed for twenty-seven allotments. Of these twenty-seven allotments, twenty-five were accessed by boats and two accessed only by snowmachine or sled. For the twenty-nine allotments for which there was no mention of how allotment owners accessed their parcels, twenty-seven were accessed during open water seasons and two were accessed only during winter months. Travel for subsistence purposes during open water seasons was generally by boat. These Native allotments included one applicant who accessed his parcel beginning in 1907, four that accessed their parcels beginning in the 1920s, six beginning in the 1940s, nineteen beginning in the 1950s, and seventeen beginning in the 1960s.

Since statehood (1959) subsistence activities within the Johnson River System have continued among Natives of the Yukon-Kuskokwim Delta. As boating technology advanced, boats went from wooden to aluminum skiffs with outboard motors. The Johnson River System continues to function as an inland route for inter-village travel for both Natives and non-Natives.

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- ²²² Ibid.
- ²²³ Ibid.

²²⁸ Ibid.

Atkins, Cultural Resources Report, Tevyar'aq Tram Project (AK DEN 2009(13)), August 24, 2012, p. 13.
 From the Federal Business Opportunities website:

https://www.fbo.gov/index?s=opportunity&mode=form&id=8186cdbe86e52d9527d49eeec3cfd93b&tab=core&_cvi ew=1 Accessed July 24, 2014. ²²⁶ Ted Horner, "Completing the Circle of the Delta," *The Delta Discovery*, July 23, 2003. ²²⁷ Ibid.