

**Takslesluk-Kayigyalik Lake  
System  
HUC 30502, Zone 4, Kuskokwim River Region**

**FINAL  
INTERIM SUMMARY REPORT**

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Phase II-B Submission

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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.

# **Table of Contents**

Preface.....	i
Table of Contents .....	ii
Table of Figures .....	ii
Table of Tables .....	iii
Attachments (in PDF format).....	iii
I. Introduction .....	0
II. Land Status .....	6
III. BLM Navigability Determinations .....	9
IV. Physical Character of the Lake System .....	25
V. Evidence of Use of the Waterway.....	39
Early Native Use of the Takslesluk-Kayigyalik Lake System.....	39
Non-Native Use of the Takslesluk-Kayigyalik Lake System	
Prior to Statehood.....	44
Use of the Takslesluk-Kayigyalik Lake System	
Documented in Native Allotment Files .....	46
Native Travel on the Takslesluk-Kayigyalik Lake System Documented in BLM	
ANSCA and USF&WS Documents and State Subsistence Studies.....	58
Tevyar’aq Portage System.....	61
VI. Summary.....	67
Endnotes.....	69

# **Table of Figures**

Figure 1. Map of Zone 4, HUC-30502. Location of Takslesluk-Kayigyalik Lake System.....	0
Figure 2. Map of Takslesluk-Kayigyalik Lake System showing land status and Native allotments. ....	8
Figure 3. BLM Navigability Decisions from Survey Group No. 268 for Takslesluk-Kayigyalik Lake System.....	14
Figure 4. Summary of most recent BLM navigability determinations for the Takslesluk-Kayigyalik Lakes System. ....	24
Figure 5. North section of Kayigyalik Lake, looking northwest over FF-13204. ....	25
Figure 6. North section of Kayigyalik Lake on the left, looking southerly .....	26
Figure 7. South section of Kayigyalik Lake, looking southeasterly over FF-15827. ....	26
Figure 8. South section of Kayigyalik Lake, looking northeasterly over AA-058195. ....	27
Figure 9. South section of Kayigyalik Lake, looking north over FF-18256.....	27
Figure 10. Eastern section of Kayigyalik Lake, looking easterly over FF-16723. ....	28
Figure 11. Eastern section of Kayigyalik Lake, looking southerly.....	28
Figure 12. The mouth of Waterway #3 and Kayigyalik Lake .....	29
Figure 13. Waterway #3, looking south over AA-51112 at river mile 18.....	30
Figure 14. Typical section of left bank tributary of Waterway #3.....	30
Figure 15. Stream section showing typical upland tundra and vegetation .....	31
Figure 16. Typical section of Waterway #4, looking southerly over FF-13235.....	32
Figure 17. Waterway #4, looking over FF-18975 at river mile 10.5.....	32
Figure 18. Left bank tributary of Waterway #4 .....	33
Figure 19. Stream section showing typical upland tundra and vegetation .....	33

Figure 20. Waterway #5, looking southeast over FF-16337A.....	34
Figure 21. Waterway #6, looking northerly over FF-16611 .....	35
Figure 22. Water system between Kayigyalik and Takslesluk Lakes. ....	36
Figure 23. East end of Takslesluk Lake, looking southerly over FF-13874.....	37
Figure 24. View along north shoreline of Takslesluk Lake.....	38
Figure 25. West end of Takslesluk Lake, looking easterly over FF-14959.....	38
Figure 26. Bethel residents preparing for journey to spring camp. ....	41
Figure 27. 19th and 20th century <i>Akulmiut</i> villages and seasonal settlements.....	42
Figure 28. Oscar Samuelson’s boat for summer mail delivery.....	46
Figure 29. Aerial view of tram, looking northerly over FF-13874.....	55
Figure 30. Waterfowl hunting areas used by Nunapitchuk residents, 1983 .....	59
Figure 31. Nunapitchuk spring fishing areas .....	60
Figure 32. Areas used by Akiachak residents for subsistence .....	61
Figure 33. Location of Tevyar'aq railway tram .....	62
Figure 34. Riverboat with outboard motor being pushed along Tevyar'aq tram .....	63
Figure 35. Location of Tevyar'aq tram, showing portage to Takslesluk Lake .....	64
Figure 36. Ted Horner's boat trip route.....	65
Figure 37. Ted Horner's boat on the Tevyar'aq tram .....	66
Figure 38. 18' boat with outboard motor on Tevyar'aq tram .....	66

## Table of Tables

Table 1. Navigability Determinations for Takslesluk-Kayigyalik Lake System.....	19
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## Attachments (in PDF format)

- Attachment 1.** Wayne R. Dawson, BLM Realty Specialist, Kasigluk Easement Meeting, January 15, 1976, BLM files, F-14873.
- Attachment 2.** Patrick Beckley, BLM Realty Specialist, Task Force Meeting on Nunapitchuk, January 27, 1976, BLM files, F-14914-EE.
- Attachment 3.** Horace Sanders, BLM Natural Resource Specialist, Task Force Meeting on Kasigluk, April 19, 1976, BLM files, F-14873-EE.
- Attachment 4.** Curtis V. McVee, BLM State Director, Notice of Proposed Easement Recommendations for the Village of Kasigluk, November 4, 1978, BLM files, F-14873.
- Attachment 5.** Irvin Brink, Chairman of Kasigluk Incorporated, Letter to the BLM concerning easement proposals, December 21, 1976, BLM files, F-14873-EE.
- Attachment 6.** Curtis V. McVee, BLM State Director, Notice of Proposed Easement Recommendations for the Village of Nunapitchuk, January 25, 1977, BLM files, F-14914-A.
- Attachment 7.** Curtis V. McVee, BLM State Director, Final Easements for the Village of Kasigluk, April 7, 1978, BLM files, F-14873.
- Attachment 8.** Joan Antonson-Mohr, BLM Historian, 2-Way Memo on Atmautluak, Nunapitchuk, and Kasigluk selection areas, January 21, 1980, BLM files, F-14914-EE.

- Attachment 9.** Joan Antonson-Mohr, BLM Historian, Supplement to Resources response dated 21 January 1980 to memo from ANCSA Easement Identification dated 15 January 1980, January 28, 1980, BLM files, F-14835-EE.
- Attachment 10.** Sherman Berg, BLM Realty Specialist, 2-Way Memo on Navigability Recommendations in Nunapitchuk, Kasigluk, and Atmautluak selection areas, April 3, 1980, BLM files, F-14914-EE, F-14873-EE, F-14833-EE.
- Attachment 11.** Curtis V. McVee, BLM State Director, Final Easements for the Village of Nunapitchuk, May 22, 1980, BLM files, F-14914-EE.
- Attachment 12.** Terry R. Hassett, Acting Chief, Branch of Adjudication, Decision to Interim Convey, July 25, 1980, BLM files, F-14914-A.
- Attachment 13.** Fred Wolf, BLM State Director, Final Easements for the Village of Kasigluk, May 26, 1981, BLM files, F-14873-A.
- Attachment 14.** Sandra C. Thomas, Decision to Interim Convey, March 2, 1982, BLM files, F-14873-A.
- Attachment 15.** Robert D. Arnold, Assistant to the State Director for Conveyance Management, Interim Conveyance (IC) No. 485, March 15, 1982, and Krissell Crandall, Chief of Branch of Adjudication I, Corrected Interim Conveyance (ICC) No. 1907, September 7, 2005, BLM files, F-14914-A.
- Attachment 16.** Robert D. Arnold, BLM Assistant to the State Director for Conveyance Management, IC No. 595, December 27, 1982, BLM files, F-14873-A.
- Attachment 17.** Wayne A. Boden, Deputy State Director for Conveyance Management, Memorandum on Navigable Waters in Group Survey No. 268, May 8, 1989, BLM files, F-14838.
- Attachment 18.** George J. Andrew Sr., Vice Chairman for Calista Corporation, Approval to Modify Navigability Determination on IC'd Lands, July 25, 1990, BLM files, F-14914-A.
- Attachment 19.** Mike Neimeyer, Vice President of Land and Natural Resources for Calista Corporation, Letter regarding navigability determinations, September 21, 1990, BLM files, F-14914-A.
- Attachment 20.** Charlotte M. Pickering, BLM Lead Land Law Examiner, Letter to Nunapitchuk Limited, December 3, 1990, BLM files, F-14914-A.
- Attachment 21.** Sherm Bell, BLM Project Inspector, Memorandum to Survey File regarding USS 10374, August 5, 1991, BLM files, F-14390.
- Attachment 22.** Michael Brown, BLM Chief of Navigability Section, Short Note Transmittal on Lake in SE ¼, T. 12 N., R. 76 W., Sec. 35 and NE ¼, Sec. 2, T. 11 N., R. 76 W., SM., November 26, 1991, BLM files, F-14390.
- Attachment 23.** Laura J. Lagstrom, BLM Navigable Water Specialist, Memorandum to Files: Interviews for Nunapitchuk Window, 2001, March 21, 2001, BLM files, F-16567.
- Attachment 24.** Laura J. Lagstrom, Navigability Report: Unnamed Tributary to Kayigyalik Lake and Its Left Bank Tributary, June 5, 2002, BLM files, F-16567.
- Attachment 25.** Gust C. Panos, BLM Chief of Branch of Mapping Sciences, 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 26.** Dominica Van Koten, BLM Chief of Navigability Section, Memorandum on Navigable Waters within Survey Group Nos. 140, 268, and 284, March 16, 2007, BLM files, F-14835.

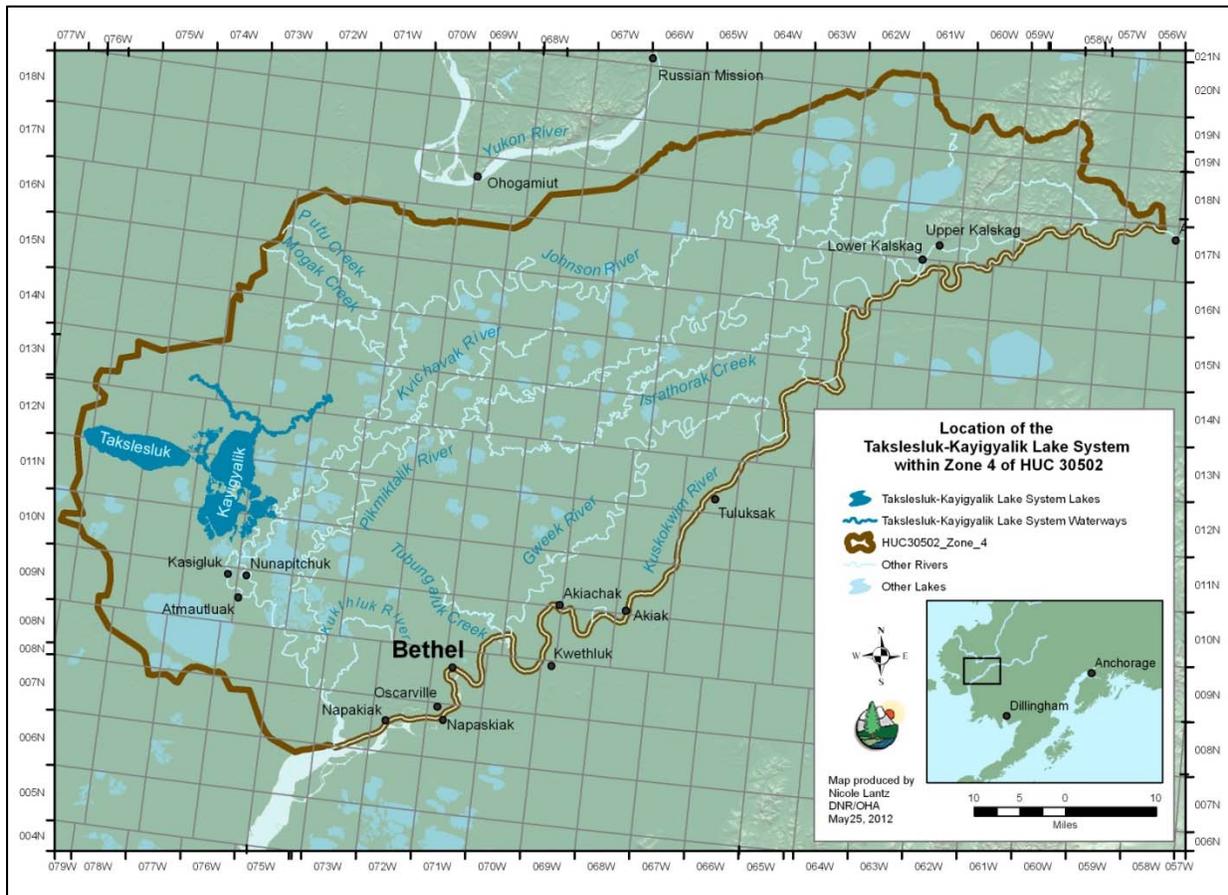
# Takslesluk-Kayigyalik Lake System

## HUC 30502, Zone 4, Kuskokwim River Region

### II-B Interim Summary Report

#### I. Introduction

The Takslesluk-Kayigyalik Lake System is located in the Yukon-Kuskokwim Delta region, Zone 4 within HUC 30502 (Figure 1). The system is comprised of Takslesluk Lake, Kayigyalik Lake, two unnamed tributaries north of Kayigyalik Lake, and a water system between Takslesluk and Kayigyalik Lake.



**Figure 1. Map of Zone 4, HUC-30502. Location of Takslesluk-Kayigyalik Lake System.**

## Kayigyalik Lake

The name Kayigyalik is the Eskimo name reported by the United States Coast and Geodetic Survey in 1951. Variant names include Kyigyalik Lake, Kyigialik Lake and Nunavak Anukslak.<sup>1</sup> The name Kayigyalik Lake, used in this report, is the name recorded in the USGS Geographic Names Information System (ID: 1895082) and is the name used to label the lake on the 1:250,000 scale Baird Inlet and Marshall quadrangles, as well as on the Marshall (A-2) 1:63,360 scale quadrangle. It is labeled as “Kyigyalik Lake” on the Baird Inlet (D-2) 1:63,360 scale quadrangle. Kayigyalik Lake is 54 square miles and is primarily located within the Yukon Delta National Wildlife Refuge (NWR). It is in five townships: Township (T.), Range (R.), Section (Sec.), Seward Meridian (SM):

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

### **Waterway #3<sup>1</sup> and its unnamed tributary**

Waterway #3 is the northwest tributary of Kayigyalik Lake. Its mouth is in Sec. 24, T. 12 N., R.75 W., SM. It is 23 river miles long. Waterway #3 has an unnamed left bank tributary with mouth in Sec. 07, T. 12 N., R. 74 W., SM. It is 14 river miles long. These water bodies are in four townships of the Seward Meridian:

T. 12 N., R. 75 W., Sec. 24	T. 12 N., R. 75 W., Sec. 10	T. 13 N., R. 75 W., Sec. 25
T. 12 N., R. 75 W., Sec. 13	T. 12 N., R. 75 W., Sec. 03	T. 13 N., R. 75 W., Sec. 26
T. 12 N., R. 74 W., Sec. 18	T. 12 N., R. 75 W., Sec. 09	T. 13 N., R. 75 W., Sec. 27
T. 12 N., R. 74 W., Sec. 07	T. 13 N., R. 75 W., Sec. 04	T. 13 N., R. 75 W., Sec. 22
T. 12 N., R. 75 W., Sec. 12	T. 13 N., R. 74 W., Sec. 32	T. 13 N., R. 75 W., Sec. 28
T. 12 N., R. 75 W., Sec. 11	T. 13 N., R. 74 W., Sec. 31	
T. 12 N., R. 75 W., Sec. 02	T. 13 N., R. 74 W., Sec. 30	

#### Unnamed tributary of Waterway #3:

T. 12 N., R. 74 W., Sec. 07	T. 13 N., R. 74 W., Sec. 26	T. 13 N., R. 74 W., Sec. 11
T. 12 N., R. 74 W., Sec. 06	T. 13 N., R. 74 W., Sec. 25	T. 13 N., R. 74 W., Sec. 10
T. 12 N., R. 74 W., Sec. 05	T. 13 N., R. 74 W., Sec. 24	T. 13 N., R. 74 W., Sec. 03
T. 13 N., R. 74 W., Sec. 36	T. 13 N., R. 74 W., Sec. 13	
T. 13 N., R. 74 W., Sec. 35	T. 13 N., R. 74 W., Sec. 14	

### **Waterway #4 and its unnamed tributary**

Waterway #4 is the northeast tributary of Kayigyalik Lake. Its mouth is in Sec. 24, T. 12 N., R. 75 W., SM. It is 17 river miles long. Waterway #4 has an unnamed left bank tributary with mouth in Sec. 15, T. 12 N., R. 74 W., SM. It is 12 river miles long. These water bodies are in five townships of the Seward Meridian:

#### Waterway #4:

T. 12 N., R. 75 W., Sec. 24	T. 12 N., R. 74 W., Sec. 15	T. 13 N., R. 73 W., Sec. 27
T. 12 N., R. 74 W., Sec. 19	T. 12 N., R. 74 W., Sec. 10	T. 13 N., R. 73 W., Sec. 21
T. 12 N., R. 74 W., Sec. 18	T. 12 N., R. 74 W., Sec. 09	T. 13 N., R. 73 W., Sec. 22
T. 12 N., R. 74 W., Sec. 17	T. 12 N., R. 74 W., Sec. 04	T. 13 N., R. 73 W., Sec. 15
T. 12 N., R. 74 W., Sec. 20	T. 12 N., R. 74 W., Sec. 03	T. 13 N., R. 73 W., Sec. 10
T. 12 N., R. 74 W., Sec. 21	T. 13 N., R. 73 W., Sec. 33	
T. 12 N., R. 74 W., Sec. 16	T. 13 N., R. 73 W., Sec. 28	

<sup>1</sup> Waterways #1 and #2, included in the General Land Status for Rivers in HUC 30502, Zone 4, Kuskokwim River phase 1-A submittal, are not included in this report.

Unnamed tributary of Waterway #4:

T. 12 N., R. 74 W., Sec. 10	T. 12 N., R. 74 W., Sec. 12	T. 13 N., R. 73 W., Sec. 25
T. 12 N., R. 74 W., Sec. 11	T. 12 N., R. 73 W., Sec. 06	T. 13 N., R. 72 W., Sec. 30
T. 12 N., R. 74 W., Sec. 02	T. 13 N., R. 73 W., Sec. 35	T. 13 N., R. 72 W., Sec. 19
T. 12 N., R. 74 W., Sec. 01	T. 13 N., R. 73 W., Sec. 36	

**Water System between Kayigyalik Lake and Takslesluk Lake**

This water system is made up of three large lakes and other smaller scattered lakes. It includes two small streams and a tramway that serves as part of a portage between Unnamed Lake #7 and Takslesluk Lake. These water bodies are in four townships of the Seward Meridian:

Unnamed Lake #2:

T. 12 N., R. 75 W., Sec. 29	T. 12 N., R. 75 W., Sec. 21	T. 12 N., R. 75 W., Sec. 16
T. 12 N., R. 75 W., Sec. 30	T. 12 N., R. 75 W., Sec. 20	T. 12 N., R. 75 W., Sec. 17
T. 12 N., R. 76 W., Sec. 25	T. 12 N., R. 75 W., Sec. 19	
T. 12 N., R. 76 W., Sec. 26	T. 12 N., R. 76 W., Sec. 24	

Unnamed Lake #3:

Labeled “Kavlgualik Lake” in the summary on the Tevyar’aq Tramway Portage Project by the Natural Resources Conservation Service of the United States Department of Agriculture.

T. 12 N., R. 75 W., Sec. 31  
T. 12 N., R. 76 W., Sec. 36

Unnamed Lake #4 :

This lake is also known by the Yup’ik place name of *Qaqaksualler*.<sup>2</sup>

T. 11 N., R. 75 W., Sec. 07	T. 11 N., R. 75 W., Sec. 05	T. 11 N., R. 76 W., Sec. 01
T. 11 N., R. 76 W., Sec. 12	T. 11 N., R. 75 W., Sec. 06	T. 12 N., R. 75 W., Sec. 31

Unnamed Lake #5:

T. 11 N., R. 75 W., Sec. 06  
T. 12 N., R. 75 W., Sec. 31

Unnamed Lake #6:

T. 12 N., R. 76 W., Sec. 36  
T. 12 N., R. 76 W., Sec. 35

Unnamed Lake #7:

T. 11 N., R. 76 W., Sec. 02

T. 12 N., R. 76 W., Sec. 35

Waterway #5:

This waterway is also known by the Yup'ik place name of *Naavan Qulliq*.<sup>3</sup>

T. 12 N., R. 75 W., Sec. 31

T. 12 N., R. 75 W., Sec. 30

Waterway #6:

This waterway is also known by the Yup'ik place name of *Naavan*.<sup>4</sup>

T. 11 N., R. 75 W., Sec. 08

T. 11 N., R. 75 W., Sec. 07

**Takslesluk Lake**

The name Takslesluk is the Eskimo name obtained by the United States Coast and Geodetic Survey from Bethel in 1948. The variant name Long Lake was used by local airplane pilots.<sup>5</sup>

Takslesluk Lake is 32 square miles. It comprises six townships:

T. 11 N., R. 76 W., Sec. 01	T. 11 N., R. 77 W., Sec. 05	T. 12 N., R. 77 W., Sec. 28
T. 11 N., R. 76 W., Sec. 02	T. 11 N., R. 77 W., Sec. 06	T. 12 N., R. 77 W., Sec. 29
T. 11 N., R. 76 W., Sec. 03	T. 11 N., R. 77 W., Sec. 07	T. 12 N., R. 77 W., Sec. 30
T. 11 N., R. 76 W., Sec. 04	T. 11 N., R. 77 W., Sec. 08	T. 12 N., R. 77 W., Sec. 31
T. 11 N., R. 76 W., Sec. 05	T. 11 N., R. 77 W., Sec. 09	T. 12 N., R. 77 W., Sec. 32
T. 11 N., R. 76 W., Sec. 06	T. 11 N., R. 77 W., Sec. 10	T. 12 N., R. 77 W., Sec. 33
T. 11 N., R. 76 W., Sec. 07	T. 11 N., R. 77 W., Sec. 11	T. 12 N., R. 77 W., Sec. 34
T. 11 N., R. 76 W., Sec. 08	T. 11 N., R. 77 W., Sec. 12	T. 12 N., R. 77 W., Sec. 35
T. 11 N., R. 76 W., Sec. 09	T. 11 N., R. 77 W., Sec. 13	T. 12 N., R. 77 W., Sec. 36
T. 11 N., R. 76 W., Sec. 10	T. 11 N., R. 77 W., Sec. 14	T. 12 N., R. 76 W., Sec. 29
T. 11 N., R. 76 W., Sec. 11	T. 11 N., R. 77 W., Sec. 15	T. 12 N., R. 76 W., Sec. 30
T. 11 N., R. 76 W., Sec. 16	T. 11 N., R. 78 W., Sec. 01	T. 12 N., R. 76 W., Sec. 31
T. 11 N., R. 76 W., Sec. 17	T. 12 N., R. 78 W., Sec. 25	T. 12 N., R. 76 W., Sec. 32
T. 11 N., R. 76 W., Sec. 18	T. 12 N., R. 78 W., Sec. 35	T. 12 N., R. 76 W., Sec. 33
T. 11 N., R. 77 W., Sec. 01	T. 12 N., R. 78 W., Sec. 36	T. 12 N., R. 76 W., Sec. 34
T. 11 N., R. 77 W., Sec. 02	T. 12 N., R. 77 W., Sec. 25	T. 12 N., R. 76 W., Sec. 35
T. 11 N., R. 77 W., Sec. 03	T. 12 N., R. 77 W., Sec. 26	
T. 11 N., R. 77 W., Sec. 04	T. 12 N., R. 77 W., Sec. 27	

The nearest villages to the Takslesluk-Kayigyalik Lake System are Nunapitchuk, Kasigluk, and Atmautluak. These three villages are located on the Johnson River approximately 20 miles southwest of its confluence with the Kvichavak River. The Takslesluk-Kayigyalik Lake System is used primarily by residents of these three villages, which are located within seven air miles of the southern bank of Kayigyalik Lake.

## **II. Land Status**

The Takslesluk-Kayigyalik Lake System flows within the boundaries of the Yukon Delta NWR, and through Alaska Native Claims Settlement Act (ANCSA) Native corporation lands. There are numerous Native allotments in the area of the lake system.

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), the existing preserve was expanded and transferred to the federal refuge system creating the Yukon Delta NWR.<sup>6</sup> The expanded withdrawal included the Takslesluk-Kayigyalik Lake 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 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 population and other established principles. The 13<sup>th</sup> 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. Three village corporations currently have been conveyed lands within the Takslesluk-Kayigyalik Lake System. Atmautluak Limited is the ANCSA village corporation for the village of Atmautluak. Kasigluk Incorporated is the ANCSA village corporation for the village of Kasigluk. Nunapitchuk Limited is the ANCSA village corporation for the village of Nunapitchuk. Lands abutting the Takslesluk-Kayigyalik Lake System were selected in the 1970s and conveyed to Nunapitchuk Ltd. (Corrected Interim Conveyance No. 1907, original Interim Conveyance (IC) No. 485) in 1982, Kasigluk, Inc. (IC No. 595) in 1982, and Atmautluak Ltd. (IC No. 448) in 1981. In 1982, Atmautluak Ltd. was also granted a Land Patent situated at the U.S. School Reserve at Tundra (labeled as Nunachuk on USGS map Baird Inlet D-2) along the Johnson River, south of Kayigyalik Lake (Patent No. 50-20-0019). The Calista Corporation is the regional Native Corporation for the middle Kuskokwim River villages. Lands selected by Calista Regional Corporation in the same areas as the village selections were conveyed by (IC) No. 449 in 1981; IC No. 486, IC No. 596, and Patent No. 50-82-0020 in 1982.

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.<sup>7</sup> However, a number of Native allotment applications collected by Rural Cap in the 1970's 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. Forty-five Native allotments were reviewed for this report due to their proximity to the lake system (Figure 2).

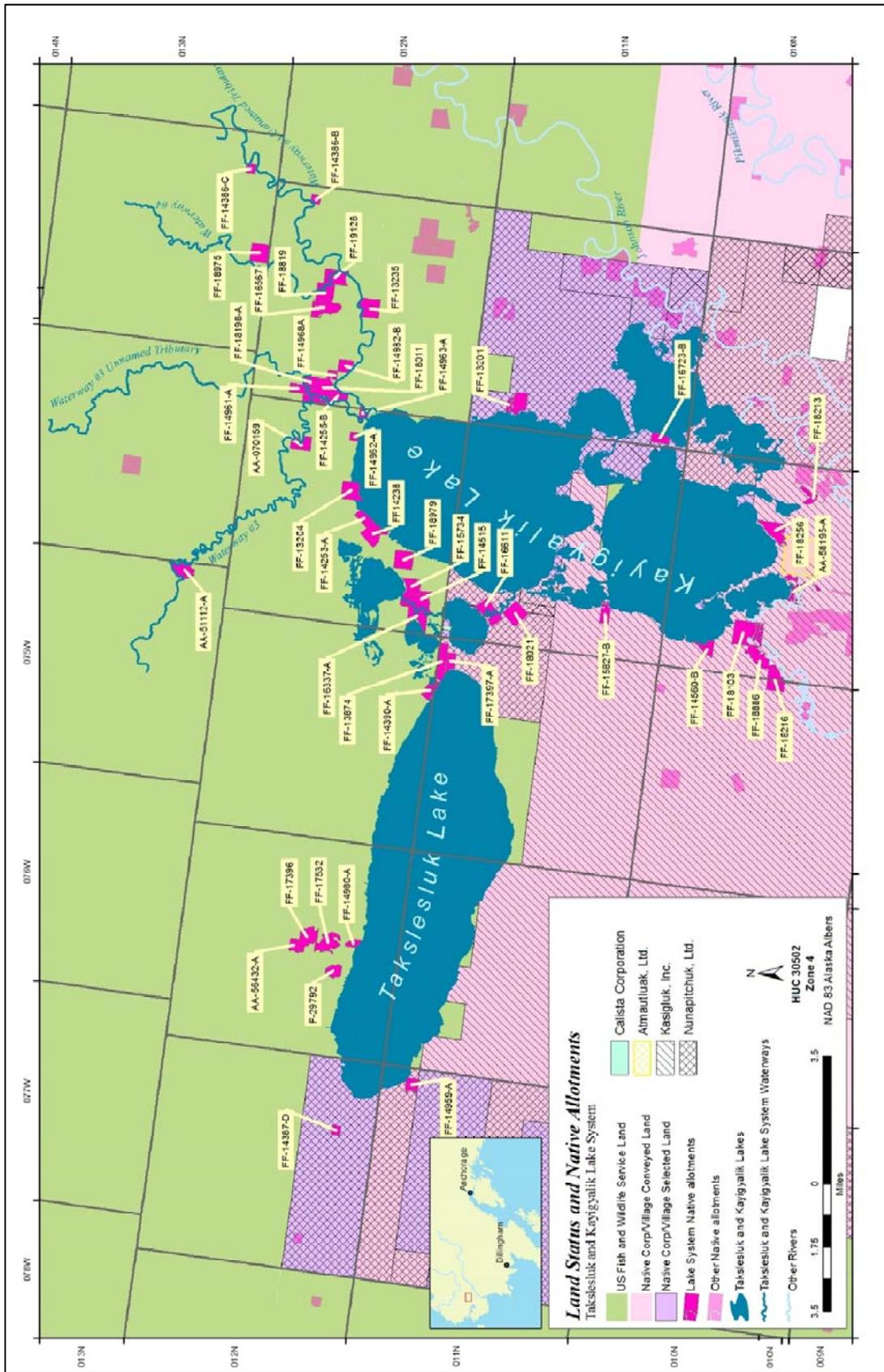


Figure 2. Map of Takslesluk-Kayigyalik Lake System showing land status and Native allotments.

### III. BLM Navigability Determinations

The BLM began actively seeking information on navigable waters in the Takslesluk-Kayigyalik Lakes area in the 1970s in preparation for land conveyances under ANCSA. Atmautluak Ltd., Kasigluk, Inc., Nunapitchuk, Inc. and the Calista Regional Corporation selected ANCSA lands in the Takslesluk-Kayigyalik Lakes area in the early 1970s.

The BLM first addressed the navigability of the water bodies within the Takslesluk-Kayigyalik Lake System during an Easement Task Force (ETF) meeting in the village of Kasigluk on September 29, 1975. On January 15, 1976, Wayne R. Dawson, a BLM Realty Specialist, issued a memorandum summarizing the ETF meeting with representatives from the village corporation for Kasigluk, during which potential easements were discussed. Included in the lands selected by Kasigluk Incorporated were lands abutting the southern portions of Takslesluk and Kayigyalik Lakes. Dawson wrote that villagers who attended the meeting were opposed to a trail easement for the trail system from Kasigluk to Bethel because the route varied depending upon the time of year. They were also opposed to easements for a campsite, boat dock, or float plane tie up, because they felt the village already had adequate facilities. Dawson noted that “the State of Alaska, Division of Lands, designated many small lakes and streams as navigable within the selection area...The village concurs with the states [sic] recommendations for navigable streams and lakes because a large portion of their selection is inundated.”<sup>8</sup> (Attachment 1)

On January 27, 1976, Patrick C. Beckley, a BLM Realty Specialist, issued a Task Force Meeting memorandum on Nunapitchuk that summarized a meeting held on January 15, 1976 to consider easements and navigability in the Nunapitchuk selection. Of the easement recommendations approved by the task force, four concerned lands and waters within the Takslesluk-Kayigyalik Lake System. Easement recommendation (6 D9) was for “an existing 50-foot tramway for portage between Takslesluk Lake and some unnamed lakes to the east of Long Lake (Takslesluk Lake). The portage is in Section 2, T. 11 N., R. 76 W., SM.” Easement recommendation (9 C4, C5) was for a one acre site adjacent to the north end of easement (6 D9) that would “facilitate use of the tramway and give access to public waters.”<sup>9</sup> Easement recommendation (10 C4) was for a 25-foot streamside easement along the Johnson River. The recommendation noted that Johnson River was highly significant for “recreation, substance [sic] and general travel in the area.”<sup>10</sup> Easement recommendation (13 C4, C5) was for a

25-foot streamside easement along identifiable channels of the Johnson River-lake system leading to the portage into Long Lake (Takselsluk [sic] Lake). This recommendation also applies to the deficiency area on the west end of Takselsluk [sic] Lake where short portages exist between small lakes west of Long Lake. These portages serve as a route between the Johnson River area and Baird Inlet.<sup>11</sup>

The Task Force found water bodies to the south of the Takslesluk-Kayigyalik Lake System to be non-navigable. These two water bodies were the Johnson River north of Nunapitchuk and Kasigluk, and the lake system through which the Johnson River passes north of Nunapitchuk and Kasigluk. (Attachment 2)

On April 19, 1976, Horace Sanders, a BLM Natural Resource Specialist, issued a Task Force Meeting memorandum on Kasigluk. Sanders summarized recommendations that included one “streamside linear easement 25-feet (both banks and bed) north from Kasigluk, along the stream draining Kayigyalik Lake toward the portage east toward Baird Inlet. This portage goes through Takslesluk Lake (Long Lake).” No legal description was provided for the location of this easement.<sup>12</sup> (Attachment 3)

Curtis V. McVee issued a Notice of Proposed Easement Recommendations for the village of Kasigluk on November 4, 1976. McVee recommended a linear easement “25-foot wide along the stream draining Kyagyalik Lake toward the portage east toward Baird Inlet. This portage goes through Takslesluk Lake (Long Lake).”<sup>13</sup> (Attachment 4)

Irvin Brink, the Chairman of Kasigluk Incorporated, wrote a letter to the BLM stating that the village of Kasigluk rejects all easement proposals through their selection area. In the letter dated December 21, 1976, Brink emphasized his dissatisfaction with the process of communication between BLM and the village.<sup>14</sup> (Attachment 5)

Curtis V. McVee, the BLM State Director, issued a Notice of Proposed Easement Recommendations for the village of Nunapitchuk on January 25, 1977. An easement in Sec. 2, T. 11 N., R. 76 W., SM was not considered because it was outside of the lands intended for conveyance. The recommended easement was for an existing tramway for the portage between Takslesluk Lake and some unnamed lakes to the east of Takslesluk Lake in Sec. 2, T. 11 N., R. 76 W., SM. Also recommended was a one-acre site easement adjacent to the north end of the tramway easement to facilitate use of the tramway and give access to public waters.<sup>15</sup> (Attachment 6)

On April 7, 1978, Curtis V. McVee issued a memorandum on Final Easements for the village of Kasigluk. McVee listed easements that were to be included in the conveyances to the village of Kasigluk. For the Takslesluk-Kayigyalik Lake System, Easement 9 C4, C5, “a streamside easement 25 feet in width upland of and parallel to the ordinary high water mark in all banks and an easement on the entire bed of the stream draining Kyigayalik Lake in its entirety through the Kasigluk selection area. Purpose is to provide for public use of waters having highly significant present recreational use.” McVee included a discussion of this waterway stating that

this stream is used by regional residents for travel and subsistence fishing. The route also provides access to the waters of Kyigayalik Lake and public lands isolated by the village selection. This stream also provides access to a portage route north of Kasigluk. Space will be provided for foot travel, boat docking, and other uses associated with travel along the waterway.<sup>16</sup> (Attachment 7)

Joan Antonson-Mohr, a BLM Historian, responded to Martin Karstetter in a 2-Way Memo on the navigability of waters in the Nunapitchuk selection area on January 21, 1980. Based on historical evidence of use, Antonson-Mohr recommended that Takslesluk and Kayigyalik Lakes be determined navigable.<sup>17</sup> (Attachment 8) On January 28, 1980, Antonson-Mohr issued a Supplement to a Resources Response memo dated January 21, 1980. She wrote that “in addition

to the water bodies that were recommended as navigable in the memo, we recommend that all sloughs, lakes, and streams that interconnect the navigable water bodies within the selection areas be determined navigable.”<sup>18</sup> (Attachment 9)

On April 3, 1980, Sherman Berg, a BLM Realty Specialist, responded in a 2-Way Memo to Martin Karstetter regarding navigability within the Nunapitchuk selection area. Karstetter had requested that Berg review information that Karstetter had gathered during a Nunapitchuk village meeting on March 27, 1980. Berg attached his review of the information in a memorandum on navigability recommendations. In Berg’s memo he recommended that recommendations in the previous report on navigability be modified. One of Berg’s recommendations concerned a water body within or adjoining the Takslesluk-Kayigyalik Lake System. An unnamed slough connecting Kayigyalik and Nunavakpak Lakes was recommended to be navigable. The slough begins in Sec. 22, T. 10 N., R. 75 W., SM and traverses Secs. 21, 16, 17, 18, 19, 20, 29, 30, T. 10 N., R. 75 W., SM, Secs. 24, 25, 26, 35, T. 10 N., R. 76 W., SM, Secs. 1, 2, 10, 11, 12, 13, 14, 15, 16, 21, 22, T. 9 N., R., 76 W., SM and enters Nunavakpak Lake at Sec. 28, T. 9 N., R 76 W., SM. The rationale Berg provided for the modification of the navigability recommendation concerning this water body was that traffic along the slough occurred on a regular basis and that he considered “traffic on the waterways the same as traffic between villages.”<sup>19</sup> (Attachment 10)

Curtis V. McVee, the BLM State Director, issued a Final Easements memorandum for the village of Nunapitchuk on May 22, 1980. McVee made navigability determinations for water bodies within the Nunapitchuk selection area using the criteria of “present and historic uses in connection with travel in trade and commerce.”<sup>20</sup> Three separate water bodies within the Takslesluk-Kayigyalik Lake System were determined navigable. The “Johnson River and its interconnecting sloughs” throughout the selection were determined navigable, which includes sloughs adjoining the eastern portion of Kayigyalik Lake. An unnamed lake in Secs. 4, 5, 6, 7, 8 and 18, T. 10 N., R. 74 W., SM was determined navigable. This unnamed lake is sometimes labeled as part of Kayigyalik Lake, e.g. on the MTP for T. 11 N., R. 74 W., SM, and has been included as part of Kayigyalik Lake in this report as well. A slough flowing from this lake in Sec. 7 to its confluence with the Johnson River in Sec. 17, T. 10 N., R. 74W, SM was also determined navigable. Noting that all other named and unnamed water bodies within the lands to be conveyed were reviewed, McVee determined that “they were considered nonnavigable.”<sup>21</sup> In addition to the navigability determinations, McVee wrote under the subheading “Major Waterways” that Kayigyalik Lake serves as a major access route to Baird Inlet.<sup>22</sup> (Attachment 11)

On July 25, 1980, Terry R. Hasset, the BLM Acting Chief, Branch of Adjudication, issued a Decision to Interim Convey (DIC) lands to Nunapitchuk Limited. Hasset’s decision conveyed lands that included the southeast corner of Kayigyalik Lake in Secs. 3-8, and 18, T. 10 N., 74 W., SM. Hasset stated that Kayigyalik Lake was considered navigable. In addition to Kayigyalik Lake, two water bodies within the Takslesluk-Kayigyalik Lake System were determined navigable in agreement with the determinations from the Final Easements memo above. The unnamed lake in Secs. 4, 5, 6, 7, 8 and 18, T. 10 N., R. 74 W., SM, which is included as part of Kayigyalik Lake in this report, was determined navigable. The slough flowing from this lake in

Sec. 7 to its confluence with the Johnson River in Sec. 17, T. 10 N., R. 74 W., SM was also determined navigable.<sup>23</sup> (Attachment 12)

Fred Wolf, the BLM State Director, issued a memorandum on Final Easements for the Village of Kasigluk on May 26, 1981. Within the memorandum, Wolf determined Kayigyalik Lake (spelled Kyigayalik Lake in the memorandum) to be a major waterway. Wolf also determined that the “Johnson River including the left branch is major throughout the selection.”<sup>24</sup> Within the section on major waterways, Wolf wrote that the left branch of the Johnson River “has significant use and provides access to the Kyigayalik Lake and onto Baird Inlet.”<sup>25</sup> Wolf determined the following water bodies within or adjoining the Takslesluk-Kayigyalik Lake System to be navigable due to present and historic uses in connection with travel, trade and commerce: The Johnson River and its interconnecting sloughs throughout the selection, Kayigyalik Lake, and the unnamed slough and lake system and its interconnecting sloughs flowing from Kayigyalik Lake to its confluence with the Johnson River at Kasigluk. (Attachment 13)

Sandra C. Thomas, the BLM Acting Chief, Branch of ANCSA Adjudication, issued a Decision to Interim Convey (DIC) to the Kasigluk Corporation on March 2, 1982. This selection included the lands surrounding the southwest portion of Kayigyalik Lake in T. 10 N., R. 75 W., SM.<sup>26</sup> The navigability determinations within or adjoining the Takslesluk-Kayigyalik Lake System mentioned above in Fred Wolf’s memorandum on Final Easements for the village of Kasigluk were upheld in the DIC. (Attachment 14)

On March 15, 1982, Robert D. Arnold, the BLM Assistant to the State Director for Conveyance Management, issued IC No. 485 to Nunapitchuk Limited. The IC excluded submerged lands determined navigable according to the criteria of travel, trade, and commerce as indicated on navigability maps. The maps included with this conveyance indicated that the following four water bodies within the Nunapitchuk Village selection area within or adjoining the Takslesluk-Kayigyalik Lake System were determined to be navigable: the eastern portion of Kayigyalik Lake in T. 11 N., R. 74 W., SM, T. 10 N., R. 74 W., SM, and T. 10 N., R. 75 W., SM.; the Johnson River flowing out of the eastern portion of Kayigyalik Lake (mouth in Sec. 7, T. 10 N., R. 74 W. SM); the Johnson River flowing into the eastern portion of Kayigyalik Lake (at Sec. 27, T. 11 N., R. 74W., SM); and the slough connecting the southern and eastern portions of Kayigyalik Lake in Secs. 23, 24, 25, 26, T. 11 N., R 75 W., SM, Secs. 19 and 30, T. 11 N., R. 74 W., SM. (Attachment 15)

On December 27, 1982, Robert D. Arnold, the BLM Assistant State Director for Conveyance Management, issued IC No. 595 to Kasigluk Inc. Dated December 27, 1982, the IC conveyed lands surrounding the southwest portion of Kayigyalik Lake in T. 10 N., R. 75 W., SM. The conveyance excluded the navigable waters within this township that were identified in the DIC, which include a small stream draining Kayigyalik Lake, the unnamed lake south of Kayigyalik Lake into which the stream drains, the stream draining the unnamed lake into the Johnson River, the Johnson River draining Kayigyalik Lake, and all portions of the Johnson River as shown on the Baird Inlet (D-2) USGS map.<sup>27</sup> (Attachment 16)

Wayne A. Boden, Deputy State Director for Conveyance Management, issued the memorandum Navigable Waters in Group Survey No. 268 on May 8, 1989. Boden's navigability report did not make determinations for meanderable streams (198 feet or more in width) or lakes (50 acres or more) that were segregated on survey plats. Of the water bodies less than meanderable size, 20 separate water bodies were determined to be navigable within and adjoining the Takslesluk-Kayigyalik Lake System (Figure 3). The criterion cited by Boden for navigability determinations was the water bodies "were navigable for crafts larger than a one-person kayak."<sup>28</sup> Boden determined these water bodies to be navigable and wrote that the

Sloughs which have little or no gradient and fill quickly when the Kuskokwim River rises during spring breakup and rainy season, are considered to be navigable if a clear channel is evident in the aerial photographs. Low level photographs taken during field examinations are also used to determine the navigability of marginal streams. During high water periods the sloughs certainly are susceptible to canoe navigation.<sup>29</sup>

The following water bodies were determined navigable in the memorandum: the stream between Kayigyalik Lake and unnamed lake to the east in Sec. 7, T. 11 N., R. 74 W., SM; the slough in Secs. 27 and 34, T. 11 N., R. 74 W., SM; the slough in E½ of Sec. 15, T. 10 N., R. 75 W., SM; the stream in Secs. 7 and 8, T. 11 N., R. 75 W., SM; the stream in Secs. 29 and 30, T. 11 N., R. 75 W., SM; the stream from Takslesluk Lake in Secs. 17, 18, and 19, T. 11 N., R. 76 W., SM; the stream from Takslesluk Lake in Sec. 1 to its mouth in Sec. 5, T. 11 N., R. 78 W., SM; Takslesluk Lake influent in Sec. 25, T. 12 N., R. 78 W., SM; the slough with mouth in Kayigyalik Lake in Sec. 6, T. 10 N., R. 75 W., SM; Waterway #3 to its left bank tributary; the left bank tributary of Waterway #3 up to river mile one; Waterway #4 through Native allotment F-16567 at river mile 8 (there appears to be an error on the MTP with regard to the location of the allotment); the left bank tributary of Waterway #4 through river mile 4.25; the right bank tributary (mistakenly referred to as "left bank" in memo) of Waterway #4; the stream in Secs. 29, 30, 31, and 32, T. 12 N., R. 75 W., SM; the right-bank tributary of Johnson River in Secs. 7, 8, and 17, T. 10 N., R. 74 W., SM; the right-bank tributary of Johnson River heading in Kayigyalik Lake in Sec 15, T. 10 N., R. 75 W, SM; the slough connecting an unnamed lake with Kayigyalik Lake in Sec. 12, T. 10 N., R. 75 W., SM; the slough in Secs. 1 and 12, T. 10 N., R. 75 W., SM; the stream heading in Nunavakpak Lake in Secs. 28, T. 9 N., R. 76 W., SM and emptying into Johnson River tributary in Sec. 22, T. 10 N., R. 75 W., SM. (Attachment 17)

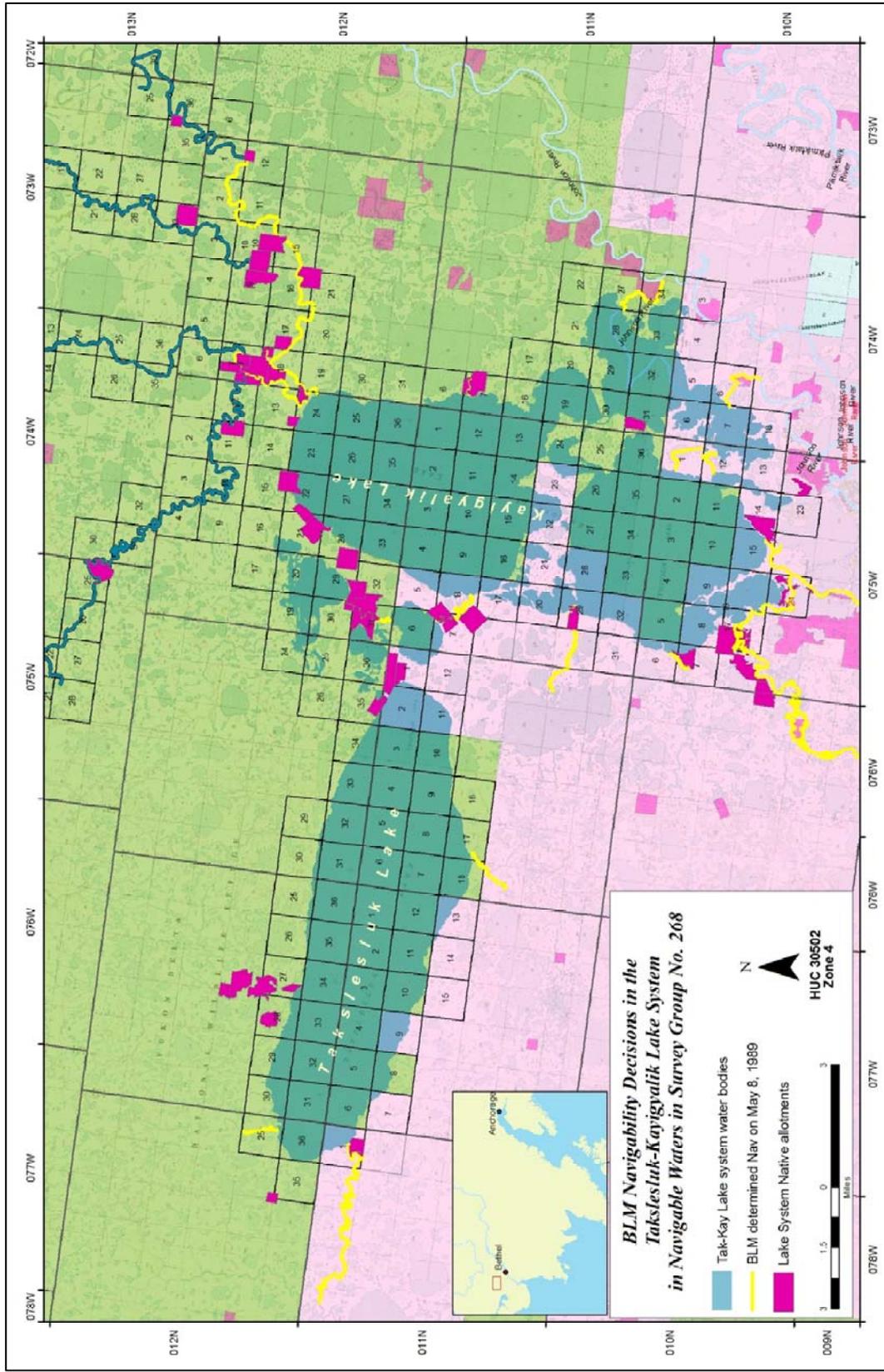


Figure 3. BLM Navigability Decisions from Survey Group No. 268 for Takslesluk-Kayigyalik Lake System.

On July 25, 1990, George J. Andrew, Vice Chairman of Calista Corporation, signed an Approval to Modify Navigability Determination on IC'd Lands. For IC No. 486, Andrew agreed to allow the BLM to make new administrative determinations of navigability "for the purpose of determining the acreage chargeable toward land entitlement."<sup>30</sup> For selection areas entailed in IC No. 486 see attachment. These new navigability determinations would supersede all prior navigability determinations made for the conveyed lands.<sup>31</sup> (Attachment 18) On September 21, 1990, Mike Neimeyer, Vice President Land and Natural Resources, Calista Corporation, wrote a letter to Ann Johnson, Chief Branch of Calista Adjudication, requesting that "no new navigability redeterminations be made on previously conveyed lands within the Calista region."<sup>32</sup> (Attachment 19)

On December 3, 1990, Charlotte M. Pickering, a BLM Lead Land Law Examiner, Branch of Calista Adjudication, issued a letter to Nunapitchuk Limited discussing the two letters that the BLM received from Calista Corporation on July 25, 1990 and on September 21, 1990 concerning navigability redeterminations. She explained that both the regional corporation and the village corporation must agree to corrections on title documents. The BLM would not, at that time, segregate the beds of navigable waters that may have been inadvertently conveyed to the corporations at the time of interim conveyance.<sup>33</sup> (Attachment 20)

Sherm Bell, a BLM Project Inspector, issued the memorandum "USS 10374" on August 5, 1991 proposing a solution to a conflict that arose with a Native allotment because of a heavily used tramway existing on the parcel. The memorandum focused on Takslesluk Lake, Unnamed Lake #7 north of Takslesluk Lake, and a tramway running between the two. Bell wrote that as part of the conflict resolution concerning the Native allotment parcels in the survey (Lots 1 and 2), the Unnamed Lake #7 north of Takslesluk Lake would be meandered by the contractor. He wrote that

[t]his lake, though less than 50 acres, is used by local people as a boat access route to and from Takslesluk Lake. A boat tramway has been constructed between the two lakes and is in constant use by the general public. Heavy use of the tramway was observed by R&M crews while surveying meanders on these lots.<sup>34</sup>

In addition to the meander, Bell wrote that the survey crews were instructed to exclude a 5 chain wide corridor between Lots 1 and 2 to avoid conflict with the boat tramway. Providing rationale for these instructions, Bell wrote:

To follow the original sketch diagram and ignore the public use of the boat tramway, would surely invite protest. Protests to including the right of way for boat traffic in anyones [sic] native allotment have already been voiced by locals to R&M survey crews while they were in the area. This minor change to both lots will accommodate the public use of the tramway and follow the spirit of the BIA conflict resolution.<sup>35</sup> (Attachment 21)

Michael Brown, the BLM Navigability Section Chief, issued the short note transmittal “Lake in SE ¼, T. 12N. R. 76 W., Sec. 35 and NE ¼, Sec. 2, T. 11 N., R. 76W., SM” on November 26, 1991. Referring to Sherm Bell’s memorandum “USS 10374,” Brown wrote that “we believe that the subject lake probably is navigable and should be meandered.”<sup>36</sup> In the official survey of Lot 1, U.S. Survey No. 10374, filed on October 20, 1992, the lake was meandered and the land containing the tramway was excluded from any Native allotments. (Attachment 22)

On March 21, 2001, Laura Lagstrom, a BLM Navigable Waters Specialist, issued a memorandum on Interviews for Nunapitchuk Window, 2001. Though no navigability determinations were made within the memorandum, the interviews were part of the evidence used in subsequent navigability reports. Waters within or adjoining the Takslesluk-Kayigyalik Lake System addressed in the memorandum included Kayigyalik Lake, Waterway #4 and its left bank tributary, a stream exiting the west end of Takslesluk Lake with its mouth in Sec. 1, T. 11 N., R. 78 W., SM.<sup>37</sup> (Attachment 23)

On June 5, 2002, Laura Lagstrom, issued a Navigability Report: Unnamed Tributary to Kayigyalik Lake and its Left Bank Tributary. Lagstrom referred to the BLM navigability determination made in 1989 by Boden, in which the unnamed tributary and its left bank tributary were determined to be navigable, to describe the location of this water body. The water body in Lagstrom’s report relates to Waterway #4 and its unnamed left bank tributary. Lagstrom’s report compiled evidence from aerial photography, USGS maps, and an interview report in which villagers who live in Kasigluk and Nunapitchuk and have traveled to allotments along the tributaries were interviewed via telephone. The report concluded that the Waterway #4 and its left bank tributary were “non-navigable through Native allotment claims, Alexie Nicholas, case file F-16567, in Secs. 9 and 10, Carl Thomas White, case file F-19128, in Secs. 10 and 11, and Billy Andrew, case file F-14386, Parcel B, in Secs. 1 and 12 in T. 12 N., R. 74 W., SM.” because the information gathered indicated that the water bodies were “not susceptible for use as a route for travel, trade and commerce.”<sup>38</sup> (Attachment 24)

Gust C. Panos, the BLM Chief, Branch of Mapping Sciences, issued a memorandum on “Navigable waters in Native Allotments Scheduled for Survey-Nunapitchuk 2001 (Group Surveys 254, 268 and 270.” In the memorandum, dated August 29, 2002, Panos summarized the survey project, which identified and prepared reports on nine potentially navigable water bodies less than meanderable size on the Native allotment claims within the survey area.<sup>39</sup> Of the nine water bodies considered in the survey project, one included water bodies abutting the Takslesluk-Kayigyalik Lake System. The survey project considered an unnamed tributary of Kayigyalik Lake (Waterway #4) and its left bank tributary as potentially navigable. Panos summarized previous navigability determinations made for Native allotment claims within Laura Lagstrom’s report on the tributaries. (Attachment 20) Based on information from USGS maps, NASA aerial photographs, master title plats, easement and Native allotment files, prior navigability reports interviews with local villagers and historical records, Panos determined that the Waterway #4 and its left bank tributary were non-navigable in T.12 N., R. 74 W., SM through the Native allotments of Carl Thomas White (F-19128) in sections 10 and 15, Andrew Wassilie (F-18819) in sections 9 and 10, Billy Andrew (F-14386, Parcel B) in sections 1 and 12 and of Billy Andrew (F-14386, Parcel C) in sections 35 and 36 of T. 13 N., R. 73 W., SM. (Attachment 25)

On March 16, 2007, Dominica Van Koten, the BLM Chief, Navigability Section, issued a memorandum on “Navigable Waters within Survey Group Nos. 140, 268, and 284.” As stated in the introduction, the memorandum “identifies navigable waters on certain surveyed and unsurveyed lands within sixty-six (66) townships, including pending ANCSA-selected and Interim-Conveyed lands within Survey Group Nos. 140, 268, and 284.”<sup>40</sup> Lagstrom wrote that the memorandum sought to affirm earlier navigability reports that made determinations within the townships under review, with the exception of the Navigability Determination of May 8, 1989. Lagstrom explained that this report was excluded because it identified navigable waters using aerial photography whereas her report deferred to “the original navigability determinations which were based on travel, trade and commerce.”<sup>41</sup> Navigable waters were listed within each township. Water bodies within a township that were not listed within the appendix of the report were determined “non-navigable” because they were “either landlocked, too short, steep-in-gradient, narrow, or shallow for travel trade and commerce.”<sup>42</sup> Of the water bodies survey within the report, waters within or adjoining the Takslesluk-Kayigyalik Lake System determined to be navigable included Kayigyalik Lake; an unnamed slough with its mouth in Sec. 7, T. 10 N., R. 74 W., SM to its confluence with the Johnson River; Johnson River to the east of Kayigyalik Lake in T. 11 N., R 74 W., SM.; an unnamed slough and lake system flowing from Kayigyalik Lake to its confluence with the Johnson River at Kasigluk; Johnson River south of Kayigyalik Lake in T. 10 N., R. 75 W., SM.; and an unnamed slough and lake system flowing from Nunavakpak Lake in Sec. 28, T. 9 n., R. 76 W., SM. to just north of the abandoned site of Nunachuk in Sec. 22, T. 10 N., R. 75 W., SM. Water bodies within or adjoining the Takslesluk-Kayigyalik Lake System determined to be non-navigable included lakes east of Takslesluk Lake in Secs. 1, 2, 11, 12 in T. 11 N., R. 76 W., SM.; and all water bodies along the southern and western shores of Takslesluk Lake in T. 11 N., R. 76 W., SM., T. 11 N., R. 77 W., SM., T. 11 N., R. 78 W., T. 12 N., 78 W., SM., and Takslesluk Lake. (Attachment 26)

Summary of Navigability Determinations: Navigability determinations for the Takslesluk-Kayigyalik Lake system are summarized below in Table 1 and shown in Figure 4 on page 24. Beginning with recommendations from the BLM’s easement task force on village selection areas in the 1970s, water bodies within the Takslesluk-Kayigyalik Lake System have been recognized by BLM as part of a portage route from the Johnson River area to the Baird Inlet. Many of the water bodies have been identified as significant for recreation, subsistence, and travel in the area. In the Final Easement memoranda for both Kasigluk and Nunapitchuk village selections, Kayigyalik was determined to be a “major waterway” in connection with its use as part of a portage route to Baird Inlet. Since 1980, Kayigyalik Lake, including its eastern portion sometimes labeled as “unnamed,” has consistently been determined to be navigable. Final Easement memos and ICs issued in the 1980s for Nunapitchuk and Kasigluk village selections determined Kayigyalik Lake, including its eastern portion, to be navigable according to the criteria of “travel, trade and commerce.” Though Kayigyalik Lake was excluded from a survey of navigable waters in the late 1980s due to its size (larger than 50 acres), many waters flowing into or out of the lake were determined to be navigable. The most recent determination for Kayigyalik Lake was made in 2007 in which Kayigyalik Lake was determined to be navigable according to the standard of travel, trade and commerce. Kayigyalik Lake has been meandered and segregated on the MTPs due to its size.

Within a navigability report in 1989, according to the standard of navigability for crafts larger than a one-person kayak at the time of statehood, Waterway #3 was determined navigable to its left bank tributary at approximate river mile 2.5, and its unnamed tributary was determined navigable up to river mile 1. No other navigability determinations have been made on this waterway.

Within a navigability report in 1989, Waterway #4 was determined navigable, according to the standard of navigability for crafts larger than a one-person kayak at the time of statehood, through river mile 8, and its unnamed tributary was considered navigable through mile 4.25. In the early 2000s, the BLM determined these same water bodies to be non-navigable according to the standard of travel, trade, and commerce.

Water bodies between Kayigyalik Lake and Takslesluk Lake were recognized by the BLM in easement memos in the 1970s as part of a portage route to Takslesluk Lake. The location of the portage route was not specified. In a 1989 navigability report, Waterway #5 and Waterway #6, connecting lakes within this system to Kayigyalik Lake, were determined to be navigable. Many of the lakes within the system were excluded from the navigability report due to size. Any lakes less than meanderable in size were determined to be non-navigable according to the standard of navigability for crafts larger than a one-person kayak at the time of statehood. A navigability report in 2007 also concluded that several of the lakes east of Takslesluk Lake in T. 11 N., R. 76 W., SM. were non-navigable, but made no determinations on the rest of the water system.

Several easements were approved in order to provide access to the portage through Takslesluk Lake and on to Baird Inlet. Though Takslesluk Lake was excluded from a survey of navigable waters in the late 1980s due to its size, several waters flowing into or out of the lake were determined to be navigable. In 2007, those water bodies were determined to be non-navigable according to the standard of travel, trade, and commerce. Also, Takslesluk Lake itself was determined to be non-navigable within the 2007 report, which did not exclude meanderable water bodies from determination.

**Table 1. Navigability Determinations for Takslesluk-Kayigyalik Lake System**

<b>Date</b>	<b>Lake System Area</b>	<b>Type, Decision and Substance</b>	<b>Criteria</b>
1/27/1976  Attachment 2	Johnson River adjoining Kayigyalik Lake	BLM Easement Task Force on Nunapitchuk Ltd. selections: determined the Johnson River north of Nunapitchuk and Kasigluk not to be navigable.	Not stated
	Lake system adjoining Kayigyalik Lake to the south	determined the lake system through which the Johnson River passes north of the two villages of Nunapitchuk and Kasigluk not to be navigable.	Not stated
5/22/1980  Attachment 11	Johnson River adjoining Kayigyalik Lake	Final Easements memo for Village of Nunapitchuk: determined the Johnson River and its interconnecting sloughs navigable in townships T. 11 N., R. 74 W., SM, T. 10 N., R. 74 W., SM, and T. 9 N., R. 74 W., SM.	Travel, Trade and Commerce
	Eastern portion of Kayigyalik Lake	determined the eastern portion of Kayigyalik Lake navigable in Secs. 4, 5, 6, 7, 8 and 18, T. 10 N., R. 74 W., SM.	Travel, Trade and Commerce
	Slough flowing from Kayigyalik Lake to the Johnson River	determined the unnamed slough from above unnamed lake in Sec. 7 to its confluence with the Johnson River in Sec. 17, T. 10 N., R. 74 W., SM. to be navigable.	Travel, Trade and Commerce
7/25/1980  Attachment 12	Kayigyalik Lake	Decision to Interim Convey for Nunapitchuk Ltd.: Kayigyalik Lake was considered navigable.	Not stated
	Johnson River adjoining Kayigyalik Lake	considered the Johnson River and its interconnecting sloughs navigable in townships T. 11 N., R. 74 W., SM, T. 10 N., R. 74 W., SM, and T. 9 N., R. 74 W., SM.	Not stated
	Eastern portion of Kayigyalik Lake	considered the eastern portion of Kayigyalik Lake navigable in Secs. 4, 5, 6, 7, 8 and 18, T. 10 N., R. 74 W., SM.	Not stated
	Slough flowing from Kayigyalik Lake to the Johnson River	considered the unnamed slough from above unnamed lake in Sec. 7 to its confluence with the Johnson River in Sec. 17, T. 10 N., R. 74 W., SM. to be navigable.	Not stated
5/26/1981  Attachment 13	Kayigyalik Lake	Final Easements memo for Kasigluk, Inc.: determined Kayigyalik Lake to be navigable.	Travel, Trade and Commerce
	Sloughs and lake systems flowing from	determined the slough and lake system and its interconnecting sloughs flowing from Kayigyalik Lake to its confluence with the Johnson River at Kasigluk	Travel, Trade and Commerce

	Kayigyalik Lake	within Secs. 15, 21, 22, 28, 33, and 34, T. 10 N., R. 75 W.; and Secs. 2, 3, and 11, T. 9 N., R. 75 W., SM.	
	Slough and lake system south of Kayigyalik Lake	determined the slough and lake system and its interconnecting sloughs lying between the aforementioned unnamed slough and the Johnson River in Secs. 14, 21, 22, 23, 25, 26, 27, 28, 34, and 35, T. 10 N., R. 75 W., SM.	Travel, Trade and Commerce
3/2/1982 Attachment 14	Johnson River south of Kayigyalik Lake	Decision to Interim Convey for Kasigluk, Inc.: determined the Johnson River and its interconnecting sloughs south of Kayigyalik Lake to be navigable.	Travel, Trade and Commerce
	Kayigyalik Lake	determined Kayigyalik Lake to be navigable.	Travel, Trade and Commerce
	All unnamed sloughs and lake systems flowing from Kayigyalik Lake, including Johnson River in T. 10 N., R. 75 W., SM.	determined all unnamed sloughs and lake systems flowing from Kayigyalik Lake, including Johnson River, in T. 10 N., R. 75 W., SM. to be navigable.	Travel, Trade and Commerce
3/15/1982 Attachment 15	Kayigyalik Lake	Interim Conveyance for Nunapitchuk Ltd.: Kayigyalik Lake was determined navigable.	Travel, Trade and Commerce
	Johnson River adjoining Kayigyalik Lake	determined the Johnson River and its interconnecting sloughs navigable in townships T. 11 N., R. 74 W., SM, T. 10 N., R. 74 W., SM, and T. 9 N., R. 74 W., SM.	Travel, Trade and Commerce
	Eastern portion of Kayigyalik Lake	determined the eastern portion of Kayigyalik Lake navigable in Secs. 4, 5, 6, 7, 8 and 18, T. 10 N., R. 74 W., SM.	Travel, Trade and Commerce
	Slough flowing from Kayigyalik Lake to the Johnson River	determined the unnamed slough from above unnamed lake in Sec. 7 to its confluence with the Johnson River in Sec. 17, T. 10 N., R. 74 W., SM. to be navigable.	Travel, Trade and Commerce
12/27/1982 Attachment 16	Johnson River south of Kayigyalik Lake	Interim Conveyance for Kasigluk, Inc.: conveyance excluded waters determined to be navigable within the DIC. The IC excluded Johnson River and its interconnecting sloughs south of Kayigyalik Lake to be navigable.	Travel, Trade and Commerce
	Kayigyalik Lake	Kayigyalik Lake determined navigable and excluded from conveyance.	Travel, Trade and Commerce

	All unnamed sloughs and lake systems flowing from Kayigyalik Lake, including Johnson River in T. 10 N., R. 75 W., SM.	all unnamed sloughs and lake systems flowing from Kayigyalik Lake, including Johnson River, in T. 10 N., R. 75 W., SM. determined navigable and excluded from conveyance.	Travel, Trade and Commerce
5/8/1989 Attachment 17	Stream east of Kayigyalik Lake	Navigable Waters in Survey Group No. 268: determined stream between Kayigyalik Lake and unnamed lake to the east in Sec. 7, T. 11 N., R. 74 W., SM to be navigable.	Craft larger than one-person kayak
	Slough in east Kayigyalik Lake	determined slough in Secs. 27 and 34, T. 11 N., R. 74 W., SM to be navigable.	Craft larger than one-person kayak
	Slough in south Kayigyalik Lake	determined slough in E½ of Sec. 15, T. 10 N., R. 75 W., SM to be navigable.	Craft larger than one-person kayak
	Waterway #6	determined Waterway #6 in Secs. 7 and 8, T. 11 N., R. 75 W., SM to be navigable.	Craft larger than one-person kayak
	Stream in west Kayigyalik Lake	determined stream in Secs. 29 and 30, T. 11 N., R. 75 W., SM to be navigable.	Craft larger than one-person kayak
	Stream in south Takslesluk Lake	determined stream from Takslesluk Lake in Secs. 17, 18, and 19, T. 11 N., R. 76 W., SM to be navigable.	Craft larger than one-person kayak
	Stream in west Takslesluk Lake	determined stream from Takslesluk Lake in Sec. 1 to its mouth in Sec. 5, T. 11 N., R. 78 W., SM to be navigable.	Craft larger than one-person kayak
	Stream in northwest Takslesluk Lake	determined Takslesluk Lake influent in Sec. 25, T. 12 N., R. 78 W., SM to be navigable.	Craft larger than one-person kayak
	Slough in southwest Kayigyalik Lake	determined slough with mouth in Kayigyalik Lake in Sec. 6, T. 10 N., R. 75 W., SM to be navigable.	Craft larger than one-person kayak
	Waterway #3 to its left bank tributary	determined Waterway #3 to its left bank tributary to be navigable.	Craft larger than one-person kayak
	Left bank	determined the left bank tributary of Waterway #3 up	Craft larger

	tributary of Waterway #3	to river mile one to be navigable.	than one-person kayak
	Waterway #4	determined Waterway #4 through native allotment F-16567 at river mile 8 to be navigable.	Craft larger than one-person kayak
	Left bank tributary of Waterway #4	determined left bank tributary of Waterway #4 through river mile 4.25 to be navigable.	Craft larger than one-person kayak
	Waterway #4	determined right bank tributary of Waterway #4 in Sec. 18, T. 12 N., R. 74 W., SM to be navigable.	Craft larger than one-person kayak
	Waterway #5	determined Waterway #5 in Secs. 29, 30, 31, and 32, T. 12 N., R. 75 W., SM to be navigable.	Craft larger than one-person kayak
	Stream in east Kayigyalik Lake	determined right-bank tributary of Johnson River in Secs. 7, 8, and 17, T. 10 N., R. 74 W., SM to be navigable.	Craft larger than one-person kayak
	Stream in south Kayigyalik Lake	determined right-bank tributary of Johnson River heading in Kayigyalik Lake in Sec 15, T. 10 N., R. 75 W, SM to be navigable.	Craft larger than one-person kayak
	Slough in Kayigyalik Lake	determined slough connecting unnamed lake with Kayigyalik Lake in Sec. 12, T. 10 N., R. 75 W., SM to be navigable.	Craft larger than one-person kayak
	Slough in Kayigyalik Lake	determined slough in Secs. 1 and 12, T. 10 N., R. 75 W., SM to be navigable.	Craft larger than one-person kayak
	Stream in south Kayigyalik Lake	determined stream heading in Nunavakpak Lake in Secs. 28, T. 9 N., R. 76 W., SM and emptying into Johnson River tributary in Sec. 22, T. 10 N., R. 75 W., SM to be navigable.	Craft larger than one-person kayak
6/5/2002 Attachment 24	Waterway #4, river miles 6 to 7.5	Navigability Report: Unnamed Tributary to Kayigyalik Lake and Its Left Bank Tributary: Determined Waterway #4 non-navigable through native allotments from river miles 6 to 7.5.	Travel, Trade and Commerce
	Left bank tributary of Waterway #4 at river mile 4.	Determined the left bank tributary of Waterway #4 to be non-navigable through a native allotment at river mile 4.	Travel, Trade and Commerce
8/29/2002 Attachment 25	Waterway #4, river miles 6 to 7.5	Navigable waters in Native Allotments Scheduled for Survey – Nunapitchuk 2001: Determined Waterway #4 non-navigable through native allotments from river miles 6 to 7.5.	Crafts larger than a one-person kayak

	Left bank tributary of Waterway #4 at river mile 4 and at river mile 8.5	Determined the left bank tributary of Waterway #4 to be non-navigable through two native allotment parcels at river mile 4 and at river mile 8.5.	Crafts larger than a one-person kayak
3/ 16/2007  Attachment 26	Kayigyalik Lake	Navigable Waters within Survey Group Nos. 140, 268, and 284: determined Kayigyalik Lake to be navigable	Travel, Trade and Commerce
	Slough east of Kayigyalik Lake	determined an unnamed slough with its mouth in Sec. 7, T. 10 N., R. 74 W., SM to its confluence with the Johnson River to be navigable	Travel, Trade and Commerce
	Johnson River east of Kayigyalik Lake	determined the Johnson River east of Kayigyalik Lake in T. 11 N., R 74 W., SM. to be navigable	Travel, Trade and Commerce
	Slough and lake system south of Kayigyalik Lake	determined an unnamed slough and lake system flowing from Kayigyalik Lake to its confluence with the Johnson River at Kasigluk to be navigable	Travel, Trade and Commerce
	Johnson River in southern Kayigyalik Lake	determined the Johnson River south of Kayigyalik Lake in T. 10 N., R. 75 W., SM. to be navigable	Travel, Trade and Commerce
	Slough and lake system in south Kayigyalik Lake	determined an unnamed slough and lake system flowing from Nunavakpak Lake in Sec. 28, T. 9 N., R. 76 W., SM. to just north of the abandoned site of Nunachuk in Sec. 22, T. 10 N., R. 75 W., SM. to be navigable.	Travel, Trade and Commerce
	Western portion of Unnamed Lake #4	determined western portion of Unnamed Lake #4 within T. 11 N., R. 76 W., SM to be non-navigable.	Travel, Trade and Commerce
	Southern portion of Unnamed Lake #7	determined southern portion of Unnamed Lake #7 within T. 11 N., R. 76 W., SM to be non-navigable.	Travel, Trade and Commerce
	Sloughs and streams adjoining Takslesluk Lake	determined all water bodies along the eastern, southern, and western shores of Takslesluk Lake in T. 11 N., R. 76 W., SM., T. 11 N., R. 77 W., SM., T. 11 N., R. 78 W., T. 12 N., 78 W., SM. to be non-navigable	Travel, Trade and Commerce
	Takslesluk Lake	determined Takslesluk Lake to be non-navigable in T. 11 N., R 76 W., SM; T. 11 N., R. 77 W., SM; T., 11 N., R. 78 W., SM; T. 12 N., R. 78 W., SM.	Travel, Trade and Commerce

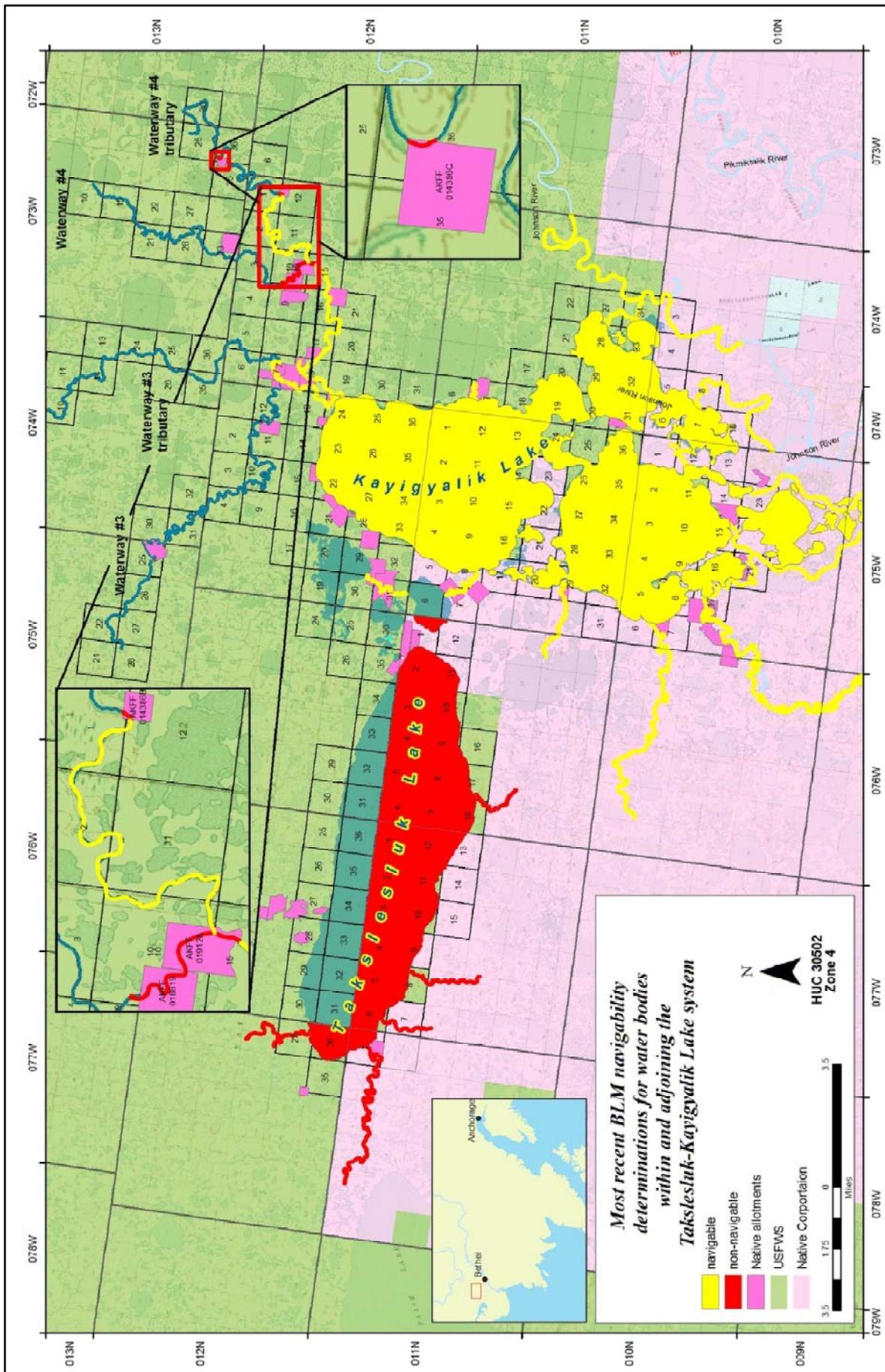


Figure 4. Summary of most recent BLM navigability determinations for the Takslesluk-Kayigyalik Lakes System.

## IV. Physical Character of the Lake System

The Takslesluk-Kayigyalik Lake System comprises two large lakes, several smaller lakes, and a network of unnamed rivers and sloughs. The lake system is at the top of an expansive water system that drains many lakes, sloughs and the Johnson and Pikmiktalik Rivers. Takslesluk Lake is also situated along a wet tundra water route to Baird Inlet.

### *Kayigyalik Lake*

Kayigyalik Lake is made up of three sections, two large bodies of water lying north (Figure 5 and Figure 6) and south (see Figure 7, Figure 8, and Figure 9) of each other and one smaller water body to the east (Figure 10, Figure 11). The three sections of the lake have a total area of approximately 54 square miles. In its widest section the lake is 5 miles wide and the combined length of its northern and southern sections is 12 miles. Kayigyalik Lake has 5 inlets and 2 outlets, one inlet and one outlet being the Johnson River which flows in and out of the east section of the lake.<sup>43</sup>

Kayigyalik Lake is at an elevation of about 15 feet above sea level and is surrounded by rolling tundra. Vegetation near the shore includes patches of alder, willow, native grasses, and berry plants, interspersed with marsh. The land separating the sections of the lake is swampy with patches of firm ground.<sup>44</sup>



**Figure 5. North section of Kayigyalik Lake, looking northwest over FF-13204.  
Photo taken by the BLM on June 29, 1987.**



**Figure 6. North section of Kayigyalik Lake on the left, looking southerly over FF-14253. Photo taken by the BLM on August 16, 1979.**



**Figure 7. South section of Kayigyalik Lake, looking southeasterly over FF-15827. Photo taken by the BLM on June 16, 1984.**



**Figure 8. South section of Kayigyalik Lake, looking northeasterly over AA-058195.  
Photo taken by the BLM on August 23, 2004.**



**Figure 9. South section of Kayigyalik Lake, looking north over FF-18256.  
Photo taken by the BLM on July 14, 1979.**



**Figure 10. Eastern section of Kayigyalik Lake, looking easterly over FF-16723.  
Photo taken by the BLM on July 14, 1979.**



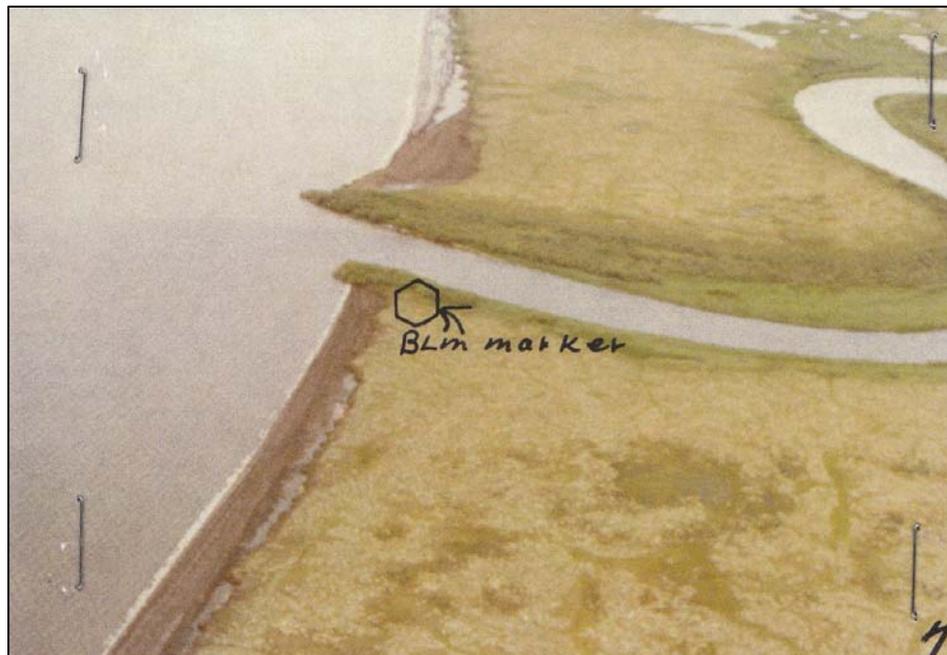
**Figure 11. Eastern section of Kayigyalik Lake, looking southerly  
over FF-16723. Photo taken by the BLM on July 14, 1979.**

*Waterway #3 and its unnamed tributary*

The main stream of Waterway #3 flows into Kayigyalik Lake with its mouth in Sec. 24, T. 12 N., R. 75 W., SM (Figure 12). The stream heads in an unnamed lake in Sec. 28, T. 13 N., R. 75 W., SM and flows southeast for 22 river miles before emptying into Kayigyalik Lake (Figure 13).

The left bank unnamed tributary of Waterway #3 (Figure 14) has its mouth at mile 2.5 of Waterway #3 in Sec. 7, T. 12 N., R. 74 W., SM. The tributary heads in an unnamed water body in Sec. 3, T. 13 N., R. 74 W., SM and flows south for 13.7 river miles until its confluence with Waterway #3.

The uplands along Waterway #3 and its tributary are open level tundra that is marshy in places with small ponds. The vegetation along the shore includes native grasses, berry plants, tundra plants and willow (Figure 15). The soil along the shore is sandy clay. In their lower portions, the streams have well-defined banks, 2 to 4 feet high.<sup>45</sup>



**Figure 12. The mouth of Waterway #3 and Kayigyalik Lake at Native allotment F-14963. Photo taken by the BLM on August 7, 1979.**



**Figure 13. Waterway #3, looking south over AA-51112 at river mile 18.  
Photo taken by the BLM on June 25, 1987.**



**Figure 14. Typical section of left bank tributary of Waterway #3,  
looking southerly over FF-14386 at river mile 0.5.  
Photo taken by the BLM on August 12, 1979.**



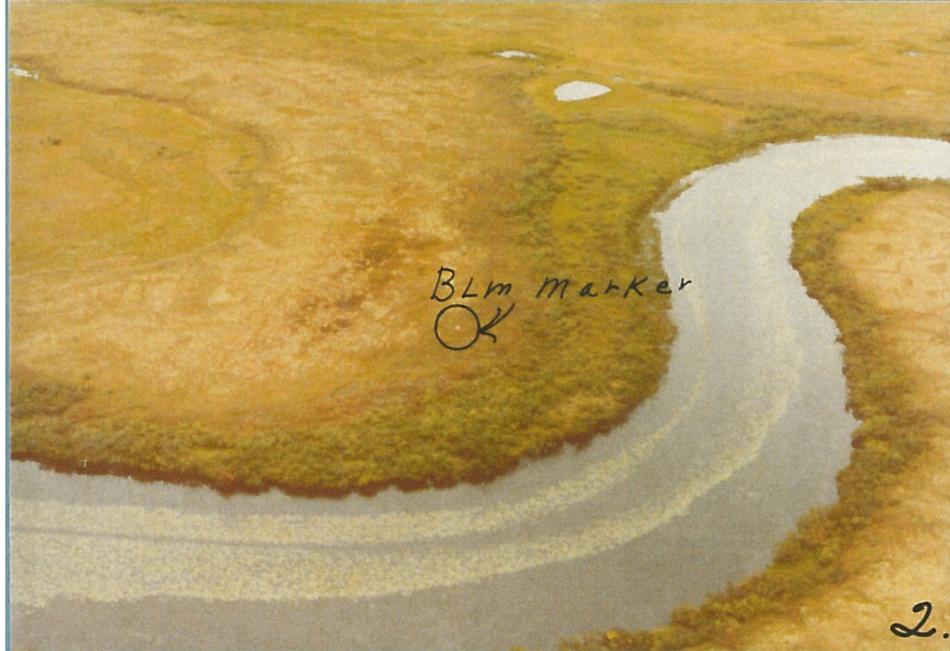
**Figure 15. Stream section showing typical upland tundra and vegetation of Waterway #3 and its left bank tributary, looking over AA-70159. Photo taken by the BLM on July 22, 2010.**

#### *Waterway #4 and its unnamed tributary*

The main stream of Waterway #4 (Figure 16, Figure 17) flows into Kayigyalik Lake with its mouth in Sec. 24, T. 12 N., R. 75 W., SM. The stream heads in an unnamed lake in Sec. 10, T. 13 N., R. 73 W., SM and flows southeast for 17.3 river miles before emptying into Kayigyalik Lake.

The left bank unnamed tributary of Waterway #4 (Figure 18) has its mouth at mile 6.5 of Waterway #4 in Secs. 10 and 15, T. 12 N., R. 74 W., SM. The tributary heads in an unnamed water body in Sec. 25, T. 13 N., R. 73 W., SM and flows south for 12 river miles until its confluence with Waterway #4.

The uplands along Waterway #4 and its tributary are open level tundra that is marshy in places with small ponds. The vegetation along the shore includes native grasses, berry plants, tundra plants and willow (Figure 19). The soil along the shore is sandy clay. In their lower portions, the streams have well-defined banks, 2 to 4 feet high.<sup>46</sup>



**Figure 16. Typical section of Waterway #4, looking southerly over FF-13235 at river mile 5. Photo taken by the BLM on August 27, 1979.**



**Figure 17. Waterway #4, looking over FF-18975 at river mile 10.5. Photo taken by the BLM on July 7, 1979.**



**Figure 18. Left bank tributary of Waterway #4, looking northerly over FF-14386 at river mile 4. Photo taken by the BLM on August 12, 1979.**



**Figure 19. Stream section showing typical upland tundra and vegetation along Waterway #4 and its left bank tributary, looking over FF-16567. Photo taken by the BLM on July 7, 1979.**

*Water System between Kayigyalik Lake and Takslesluk Lake*

The water system is made of three large lakes, three small lakes, and two waterways. The uplands between Kayigyalik Lake and Takslesluk Lake are open level tundra that is marshy in places with small ponds. The vegetation along the shore includes native grasses, berry plants, tundra plants and willow.<sup>47</sup>

Waterway #5 (Figure 20) heads in Unnamed lake #2 in Sec. 30, T. 12 N., R. 75 W., SM. The stream flows for approximately 1.9 river miles before it empties into Unnamed Lake #4, with its mouth in Sec. 31, T. 12 N., R. 75 W., SM.



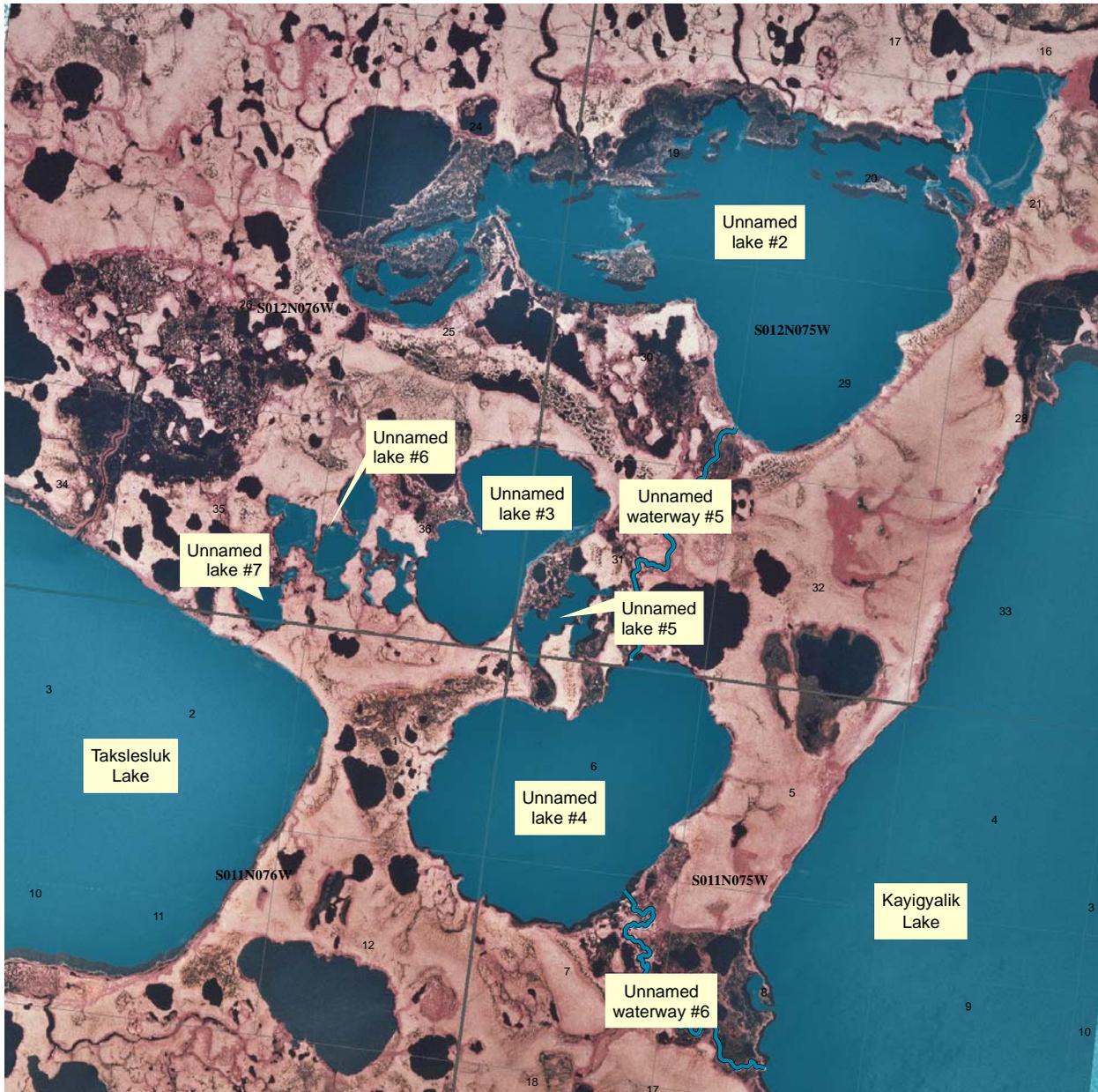
**Figure 20. Waterway #5, looking southeast over FF-16337A.  
Photo taken by the BLM on June 25, 1987.**

Waterway #6 (Figure 21) heads in Unnamed Lake #4 in Sec. 7, T. 11 N., R. 75 W., SM. The stream flows for approximately 2.2 river miles and empties into Kayigyalik Lake, with its mouth in Sec. 8, T. 11 N., R. 75 W., SM.



**Figure 21. Waterway #6, looking northerly over FF-16611 toward Unnamed Lake #4. Photo taken by the BLM on June 16, 1984.**

Unnamed Lake #2 has an approximate surface area of 2.4 square miles. Unnamed Lake #3 has an approximate surface area of 0.54 square miles. Unnamed Lake #4 has an approximate surface area of 1.3 square miles. Unnamed Lake #5 is approximately 40 acres. Unnamed Lake #6 is approximately 84 acres. Unnamed Lake #7 is approximately 27 acres. (Figure 22)



**Figure 22. Water system between Kayigyalik and Takslesluk Lakes.**

## *Takslesluk Lake*

Takslesluk Lake (Figure 23, Figure 24, Figure 25) is a large tundra lake with a surface area of 32 square miles. The lake is approximately 12 miles long and 3.8 miles wide. Takslesluk interconnects with numerous other lakes and has 27 inlets and 2 outlets.<sup>48</sup>

Takslesluk Lake is at an elevation of about 10 feet and is surrounded by rolling tundra. The shore has topsoil of silt and loam, and the vegetation near the shore includes patches of alder, willow, native grasses, and berry plants.<sup>49</sup>



**Figure 23. East end of Takslesluk Lake, looking southerly over FF-13874.  
Photo taken by the BLM on June 12, 1984.**

The Takslesluk-Kayigyalik Lake System is located within the continental and transitional climate zones. The transition zone in the Kuskokwim Delta area extends 100 to 150 miles inland where the continental zone begins. The continental climate is characterized by relatively warm summers and cold winters. There are lesser amounts of precipitation in this zone than in the maritime zone. The transition zone exists between the maritime and continental zones. Precipitation averages 16 inches in the area near Bethel, with snowfall of 50 inches. Summer temperatures range from 39° F to 62° F. Winter temperatures range from -3° F to 20° F.<sup>50</sup> Water bodies of the Takslesluk-Kayigyalik Lake System appear to be in their natural and ordinary condition since the time of statehood.



**Figure 24. View along north shoreline of Takslesluk Lake, looking west over FF-13874. Photo taken by the BLM on June 12, 1984.**



**Figure 25. West end of Takslesluk Lake, looking easterly over FF-14959. Photo taken by the BLM on August 5, 1979.**

## V. Evidence of Use of the Waterway

### *Early Native Use of the Takslesluk-Kayigyalik Lake System*

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<sup>2</sup>, when Eskimos from the north moved into the lower Kuskokwim drainage, bringing with them the so-called Arctic Small Tool tradition.<sup>51</sup> Permanent occupation of the interior Kuskokwim Delta with chronological continuity began about AD 600.<sup>52</sup>

Though, in general, boundaries between subcultural groups within the Yukon-Kuskokwim Delta prior to Russian contact are uncertain, the Kuskokwim Eskimos permanently occupying the inland region between the Yukon and Kuskokwim rivers had a more definitive local identity and are called “akúlmiut ‘dwellers in between’ or ‘tundra people’”<sup>53</sup> by the local Eskimos. In an Alaska Department of Fish and Game technical paper, Elizabeth Andrews examined the evidence of the *Akulmiut* existing as a socioterritorial unit who are “associated with a particular geographical area as much as they are recognized as an individual polity.”<sup>54</sup> Reviewing historical records beginning with Lieutenant Zagoskin’s explorations for the Russian-American Company in 1842-44, linguistic evidence from recorded Yup’ik place names within the Yukon-Kuskokwim Delta, and contemporary group and place name designation from interviews, reports, and Native allotment files, Andrews demonstrates that the *Akulmiut* have existed as a distinct group among the Central Yup’ik beginning sometime before Russian contact and continuing to the present.<sup>55</sup> Archaeological sites nearby the inland *Akulmiut* territory suggest that the area was occupied as early as 0 to 600 A.D. In 1880 the estimated total of all groups living on the delta, including the *Akulmiut*, in an area that ranged from the north bank of the Kuskokwim throughout the Yukon-Kuskokwim Delta to the area just north of the Yukon River was 3,100.<sup>56</sup>

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.<sup>57</sup> The area between the Yukon and Kuskokwim river deltas is an alluvium-floored marshy plain containing innumerable lakes with numerous meandering low-gradient streams. It is estimated that 30 to 50 percent of the lowland is lake surface.<sup>58</sup> The exceptional geographic landscape of the *Akulmiut* territory has contributed to the distinctiveness of their subsistence activities among other Central Yup’ik groups, as well as the distinctive nature of *Akulmiut* clothing styles, material culture, ceremonies, and transportation methods.<sup>59</sup>

The *Akulmiut* have lived a traditional subsistence lifestyle on the lowland tundra of Yukon-Kuskokwim delta that spans many centuries. Subsistence is a form of production and consumption in which hunting, fishing and collecting plants are the primary sources of food and other necessities of life. Traditional Alaska Native subsistence practices involve harvesting,

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<sup>2</sup> BC (Before Christ) and AD (Anno Domini) are used here to label years in the Gregorian calendar, denoting years from the start of the era (AD) and those before the era (BC).

distributing and consuming resources. These activities include important social and religious components, one of the most important of which is the distribution and exchange of subsistence products within families, between families and bands, and with Native groups outside their territory. Each Native culture in Alaska has its own set of customs and values governing the transfer of subsistence goods, falling into categories such as ceremonial, sharing, partnership, trade and commercial exchange. The cultural values that promote ceremonial feasting and distribution of subsistence resource goods have persisted in all Alaska Native groups.<sup>60</sup>

The *Akulmiut* traveled extensively throughout their territory in the tundra for subsistence activities as well as areas outside their territory for purposes of trade with neighboring Alaska Native groups. The *Akulmiut* established permanent villages that formed a base from which they wandered in an annual round of subsistence activities. Their lifestyle centered on fishing for salmon and freshwater fish, hunting of land mammals, waterfowl, and occasionally sea mammals, and gathering berries.<sup>61</sup> The lakes and streams on the tundra contain whitefish, trout, pike, and a variety of other fish. The abundance of natural resources, especially fish, in the tundra gave stability to the *Akulmiut* that was equal to that of coastal communities.<sup>62</sup> People from the coastal communities traveled inland to hunt and fish, and those who lived permanently in inland villages on the tundra, while largely subsisting on lake fish, also visited the coast on occasion to hunt sea mammals.<sup>63</sup>

While subsistence activities throughout the Kuskokwim were generally uniform, variations existed, especially among the *Akulmiut*, who were isolated to a larger degree than other groups within the lowland tundra region of the Yukon-Kuskokwim delta. The *Akulmiut* traditionally lived in a seasonal subsistence patterns that continue to the present day. 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 and 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.<sup>64</sup>

In the spring they 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.<sup>65</sup> Families made the spring journey using a freight sled, on which they carried supplies, including a boat. In the spring camp, women and girls searched for last year's berries still on 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 large distances to hunt and snare waterfowl, spear fish, as well as 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 26).<sup>66</sup>



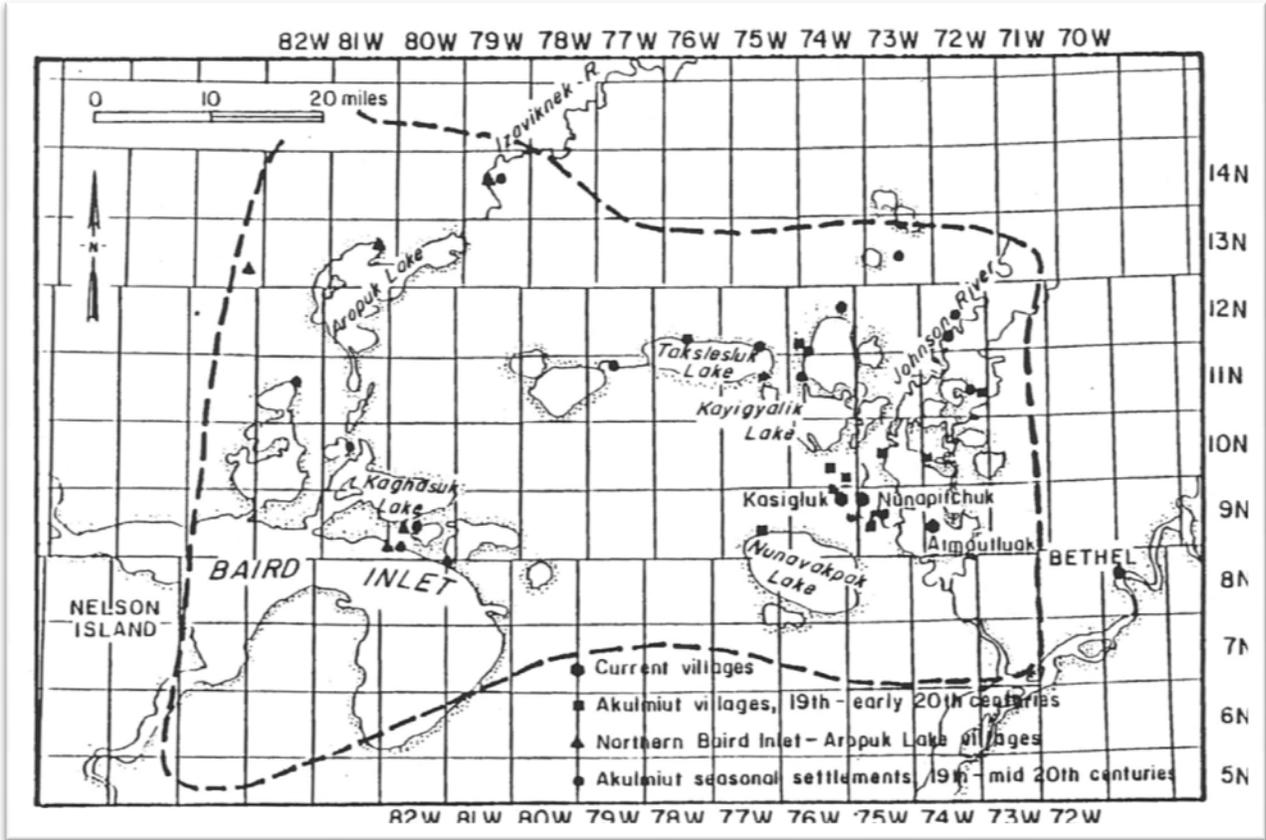
**Figure 26. Bethel residents preparing for journey to spring camp, carrying their boats. Reprinted for Lenz, et al., *Bethel: the 1st 100 Years*, p. 62. Photo by Rev. Ferdinand Drebert, circa 1915.**

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.<sup>67</sup> Other families moved to camps along the Johnson River area 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. Bird drives were often conducted in concert by multiple families. Traditionally, bird drives involved men using kayaks and boats to force birds to the east end of the lake. Birds were then speared by families waiting on the east end of the lake. Drives would yield as many as four boat loads of birds that were divided up by species among the families and transported by boat to the winter village where they were stored in pits and covered with wood grass and sod.<sup>68</sup>

In the fall, most families boated to the camps they had occupied in the spring or additional fall camps to obtain additional food for the winter, while some families would remain 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 also to provide additional food cached at the winter village. Men also trapped furbearers such as mink, ground squirrels, marmots, beaver, land otter, and martens, depending on local availability. Fall ended when local streams were becoming no longer navigable. 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.<sup>69</sup>

Settlements were located extensively throughout the Takslesluk-Kayigyalik Lake System from the Johnson River to the Baird Inlet-Aropuk Lake area (Figure 27). While the winter villages were the most permanent place 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 up the year, conditions, and subsistence conditions, individuals or groups may reside

at seasonal harvest locations year-round or return frequently even throughout the winter.<sup>70</sup> 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.”<sup>71</sup>



**Figure 27. 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.**

The annual subsistence cycle and customs of the *Akulmiut* were reported to have been the least changed by non-native influences among Alaska Natives at the end of the nineteenth century.<sup>72</sup> 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.<sup>73</sup> 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.<sup>74</sup> By 1824, Russian fur traders had established trade with the people of the Kuskokwim River and surrounding area. As trading stations were established along the Kuskokwim River, furs from the *Akulmiut* 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.<sup>75</sup> 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.<sup>76</sup> During the summer, the traders journeyed using large, open skin boats or bidarkas, with oars and sails; in winter, travel was by sled and dog team.<sup>77</sup>

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 the 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.<sup>78</sup> 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 Delta. The area was used for hunting and trapping mink by Nunapitchuk residents in the first half of the twentieth century. The Takslesluk-Kayigyalik Lakes System has long been an inland travel route for 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 Takslesluk-Kayigyalik Lakes and Aropuk Lake-Baird Inlet areas by a three-holed kayak to buy furs. 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.<sup>79</sup> 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* was mostly through 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 fur trade declined further due to centralizing forces such as compulsory school attendance. Throughout this time, most of the trapping was done while hunting and harvesting resources for domestic consumption with minimal effects on traditional seasonal subsistence cycles.<sup>80</sup>

Through the nineteenth century, the Takslesluk-Kayigyalik Lakes area was thickly settled by the *Akulmiut*, containing numerous villages and seasonal settlements.<sup>81</sup> In his journey through the area during the winter of 1878-1879, Edward Nelson noted that the Takslesluk-Kayigyalik area of the *Akulmiut*, due to the abundance of whitefish, was "perhaps the most thickly peopled district of Alaska north of the Kuskokwim river."<sup>82</sup> Travel to and from villages and seasonal camps throughout the Takslesluk-Kayigyalik Lake System was by boat during the ice-free period of spring to fall. The *Akulmiut* traveled from the Johnson River area along inland waterways and lakes to seasonal camps and villages as distant as Aropuk Lake and Baird Inlet to the west.<sup>83</sup> This inland route to Baird Inlet runs through the Takslesluk-Kayigyalik Lake System.

In the first half of the twentieth century, beginning with the influenza epidemics in 1900, the population distribution of the *Akulmiut* shifted from many smaller villages to a few larger villages concentrated south of Kayigyalik Lake along the Johnson River.<sup>84</sup> Villages from as far away as Aropuk Lake moved to the Johnson River area.<sup>85</sup> By 1980, *Akulmiut* population was concentrated into the three villages of Kasigluk, Nunapitchuk, and Atmautluak. Centralizing forces on *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.<sup>86</sup> Formal Moravian education began in 1930 at Nunapitchuk, with an Office of Indian Affairs school opening several years later in 1937.<sup>87</sup>

Commercial salmon fishing began along the Kuskokwim in 1913 and, subsequently, salmon harvesting for distribution in local markets developed as an industry in the Kuskokwim Bay area.<sup>88</sup> 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 activity of the *Akulmiut*.<sup>89</sup>

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.<sup>90</sup> 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.<sup>91</sup> 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.

#### *Non-Native Use of the Takslesluk-Kayigyalik Lake System Prior to Statehood*

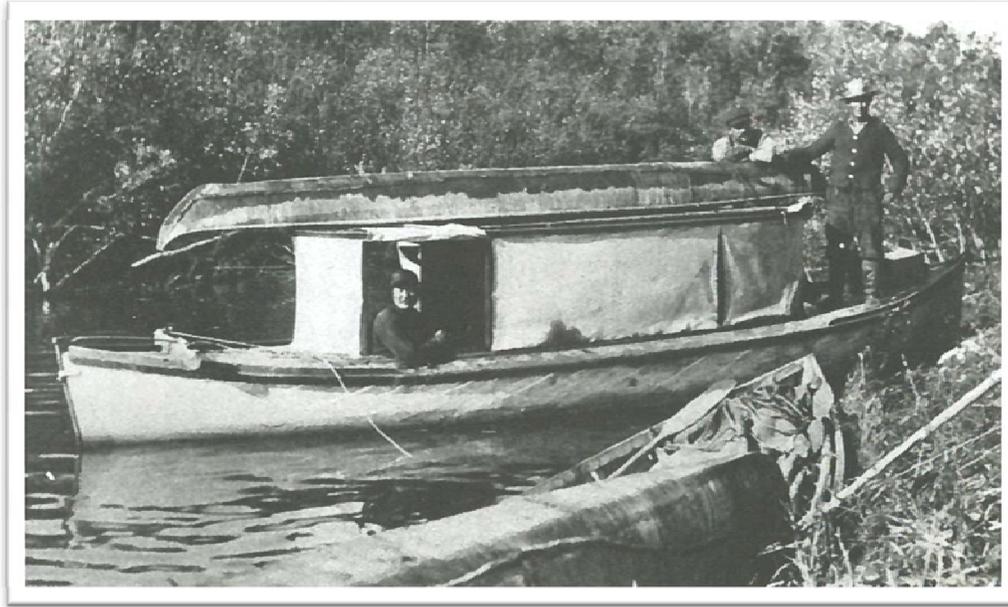
Early Russian and American explorers and missionaries used local Natives as guides during their travel within the Kuskokwim River drainage and the lowland tundra region of the Yukon-Kuskokwim Delta. Russian traders began exploring the Yukon and Kuskokwim rivers in the early 1790s via an overland route from a post at Lake Iliamna. Reports of a large population of people in the area as well as an abundance of fur-bearing animals led the Russians to try and extend trading into the Yukon River and Kuskokwim basin areas a few decades later once sea-otter trade had declined and trade in lesser-valued furs increased. In the 1830s traders found furs within the Kuskokwim River area to be plentiful and, in 1833, Kolmakov established a trading post along the Kuskokwim at the mouth of the Kolmakov River.<sup>92</sup>

A redoubt at St. Michael established in 1833 allowed Russians to extend trade far up the Yukon River and eventually they discovered an alternative route to the Kuskokwim River.<sup>93</sup> An outpost of St. Michael called Ikogmiut was established near the portage to the Kuskokwim River in order to extend trade to inland areas between the Yukon and Kuskokwim rivers.<sup>94</sup> Access into this area from the portage was through the Takslesluk-Kayigyalik Lakes System via the Johnson River. Unable to establish access into the Kuskokwim basin from the sea or find an overland route to Cook Inlet, Russians devoted their efforts to extending influence to the headwaters of the Kuskokwim and the area between the rivers. By 1841, Kolmakov post was upgraded to a Redoubt and became the chief base of operations on the Kuskokwim River.

Every summer, Russian and Native traders working for the trading posts traveled by boat to small posts along the river where they met and traded with Natives. These traders, from both the Yukon posts to the north and the Kuskokwim posts in the south, traveled throughout the Takslesluk-Kayigyalik Lakes area of the *Akulmiut* to obtain pelts from *Akulmiut* trapping and hunting as part of their annual subsistence cycles.<sup>95</sup>

After the Alaska Purchase of 1867, the Alaska Commercial Company hired Reinhold Separe to represent the firm at Kolmakov. Separe, in the 1870s, maintained trading posts at Vinasale and Mumtrekhlagamute (near Bethel). Both operated into the 1890s.<sup>96</sup> By 1903 the first reported resident trader in the *Akulmiut* area was living in Nunachuk, south of Kayigyalik Lake. Between 1918 and the early 1930s, Dillingham trader Frank Waskey traveled throughout the *Akulmiut* area from the Kuskokwim River to Baird Inlet collecting furs. Waskey traveled by sled in the winter and by three-holed kayak in the summer.<sup>97</sup>

Regular mail service was established in Bethel around 1905. From 1906 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. On his return trip, Samuelson took the Yukon-Kuskokwim portage at Paimute and then traveled down the Johnson River to *Akulmiut* villages.<sup>98</sup> Though *Akulmiut* villages were located throughout the Takslesluk-Kayigyalik Lake System during this time, it is uncertain which villages Samuelson visited on his route. In the summer, Samuelson carried mail in a motor launch and used canoes to cross the portage to the Yukon<sup>99</sup> (Figure 28).



**Figure 28. 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.**

#### *Use of the Takslesluk-Kayigyalik Lake System Documented in Native Allotment Files*

The BLM began collecting information in the 1970s to adjudicate Native allotment applications filed by local Natives who had a tradition of subsistence harvests on land in their area. The Natives accessed favorite spots along the river by boat for hunting, trapping, fishing and berry picking. These favorite spots, through customary use, developed into exclusive use areas. The federal government approved many of these areas as allotments and transferred title to the land to the applicants. Travel to allotments throughout the Takslesluk-Kayigyalik Lake System during the open season was by small boats powered by outboard motors.<sup>100</sup> Forty-five Native allotments are on lands along the shores and banks of the Takslesluk-Kayigyalik Lakes System. BLM files for these allotments document local Natives travelling throughout the system by boat to reach their parcels. For the location of these Native allotments, see Figure 2 on page 8.

#### *Native allotments on Kayigyalik Lake*

Andruska Active applied for Native allotment F-18213 on March 3, 1971. The 160-acre parcel is comprised of two lots located at the southern end of Kayigyalik Lake. Active claimed seasonal use of the land since 1951 for fishing and picking berries.<sup>101</sup> Clifford Ells, a BLM Realty Specialist, visited the parcel with the deceased applicant's representative, Alexie Kassel on July 27, 1979. Ells did not state how the applicant accessed the parcel.<sup>102</sup> The parcel was

officially surveyed and filed as Lots 1 and 2, U.S. Survey No. 8413 on May 14, 1986. It was certificated as No. 50-89-0742 on September 27, 1989.

Nick Hoover applied for Native allotment F-18256 on March 4, 1971. The 160-acre parcel is located at the southern end of Kayigyalik Lake. Hoover used his parcel since 1918 from June to September for fishing. He stated on his application that he had used the parcel “every year since I was a little boy with my family.”<sup>103</sup> On July 14, 1979 Monna L. Ivy, a BLM Realty Specialist, visited the parcel with Anesia Hoover, the applicant’s wife, and Leo Beaver, a village coordinator for Kasigluk. Ivy stated that Hoover accessed his parcel by boat. She also stated that the access route to the parcel was by an “unnamed stream from Kasigluk past Nunachuk to parcel or the Johnson River to a large unnamed lake to the southern portion of the parcel.”<sup>104</sup> The parcel was officially surveyed and filed as U.S. Survey No. 8442 on September 19, 1989 and certificated as No. 50-89-0676 on September 19, 1992.

Andrew Keene applied for Native allotment AA-58195 on November 15, 1968. Parcel A is located on the southern end of Kayigyalik Lake. The parcel totals 60 acres and is spread out over 7 parcels clustered together. From 1924 to 1953 Keene stated that he lived on the parcel year round. During this time he cultivated a garden with various vegetables and kept 7 to 10 dogs on the parcel. From 1953 until he filled out his application in 1968, Keene returned to the parcel for three months each year to fish and trap from August to October.<sup>105</sup> In a statement dated March 9, 1984, Keene noted that because of his age he could not trap, but continued to fish on the parcel. On June 3, 1984, Meg Jensen, a BLM Realty Specialist, visited the parcel with Wilson Keene the applicant’s son. Jensen stated that Andrew Keene accessed the parcel by boat.<sup>106</sup> Wilson Keene also used the land for hunting, trapping and fishing in the spring, fall, and winter.<sup>107</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10342 on October 20, 1992 and certificated as No. 50-2007-0720 on September 25, 2007.

Ina Keene Morgan applied for Native allotment F-18103 on September 13, 1971. Morgan’s allotment is located on the southern end of Kayigyalik Lake. She claimed use of the parcel since 1962 for fishing and berry picking from May to August. Keene stated on her application that she used the parcel as a summer camp for picking berries and catching fish. In the fall she would return to Kasigluk. She has lived in the area all her life except for three years when her father was a lay pastor in Togiak and Eek.<sup>108</sup> On July 14, 1979, Monna L. Ivey, a BLM Realty Specialist, visited the parcel with Ina and her mother Martha Keene. Ivy stated that Keene accessed her parcel by boat.<sup>109</sup> The parcel was officially surveyed and filed as Lots, 2, 3, 4, 7, 8, and 9 U.S. Survey No. 8419 on May 17, 1986 and certificated as No. 50-86-0608 on September 29, 1986.

Martha Keene of Kasigluk applied for Native allotment F-18886 on December 21, 1970. The 160-acre parcel is located on the southern end of Kayigyalik Lake. Keene used the parcel since 1964 from June to September for berry picking, hunting, and fishing.<sup>110</sup> Monna L. Ivey, a BLM Realty Specialist, visited the parcel on July 14, 1979 with Martha and her daughter Ina. Ivey stated that Ina Keene accessed her parcel by boat.<sup>111</sup> The parcel was officially surveyed and filed as Lot 5, U.S. Survey No. 8419 on May 17, 1986 and certificated as No. 50-86-0609 on September 29, 1986.

Elena A. Berlin of Nunapitchuk applied for Native allotment FF-14560 on December 9, 1970. Parcel B is a 60-acre parcel located on the southwest shore of Kayigyalik Lake. Berlin used the parcel since 1947 from July to September for berry picking and fishing.<sup>112</sup> Rhett Wise, a BLM Realty Specialist, visited the parcel on August 1, 1979, with Elena's husband John. Wise stated that access to the parcel was by "river boat through the Johnson River and interconnected rivers and lakes. Also by snowmachine and dogteam."<sup>113</sup> Wise also stated that the land was used in the summer for berry picking and fishing for whitefish with a net, and for blackfish using wire baskets. In the winter mink, muskrat, rabbit and fox were trapped and hunted.<sup>114</sup> The parcel was officially surveyed and filed as Lot 1, U.S. Survey No. 8419 on May 17, 1986. It was certificated as No. 50-91-0059 on November 15, 1990.

Japhet S. Anvil of Bethel applied for Native allotment FF-15827-B on December 9, 1970. Parcel B is 60 acres and is located on the southwest shore of Kayigyalik Lake. Anvil claimed use of the parcel since 1921 for year round use of berry picking, fishing, hunting, and trapping. Anvil stated that "My family used to live at Kuigaa. I moved to Nunachuk in 1942 but continued to go there. My wife, family and I go to Chavangerlia to pick berries in the fall. We also go in the spring."<sup>115</sup> Meg Jensen, a BLM Realty Specialist, visited the parcel on June 16, 1984 with Japhet Anvil. Jensen stated that Anvil accessed the parcel by boat. Jensen also stated that the applicant used the parcel for berry picking and fishing.<sup>116</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10373 on October 20, 1992. It was certificated as No. 50-93-0581 on September 22, 1993.

Anesia Hoover of Kasigluk applied for Native allotment F-16723 on March 4, 1971. Parcel B is a 60-acre parcel located on the west shore of the eastern section of Kayigyalik Lake. She has used this parcel since 1950 from July to October for berry picking.<sup>117</sup> Monna L. Ivey, a BLM Realty Specialist, visited the parcel on July 14, 1979, with Hoover. Ivey stated that Hoover accessed the parcel by boat.<sup>118</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10369 on October, 20, 1992. It was certificated as No. 50-93-0390 on August 16, 1993.

Moses Mojin of Nunapitchuk applied for Native allotment F-13201 on September 28, 1970. The 160-acre parcel is located on the east side of Kayigyalik Lake. Moses has used the parcel since 1940 from November to December for trapping and hunting.<sup>119</sup> Russel D. Blome, a BLM Realty Specialist, visited the parcel on August 17, 1975 with Mike Mojin, Moses Mojin's representative. Blome stated that "when the applicant was younger access was overland by dogsled but in recent times by snowmachine...The applicant began using this allotment in 1940 for hunting and trapping mink and fox. Mr. Mojin used this land in the spring before breakup and in the fall after freeze-up, but only occasionally during the winter. Normally he went overland by dogsled and would camp out on his allotment. Mr. Mojin claims his parents lived here at one time."<sup>120</sup> A historic place application (AA-11608) was made on the parcel, which includes a cemetery site (AA-11615).<sup>121</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10368 on October 20, 1992. It was certificated as No. 50-93-0334 on July 15, 1993.

Alexie Kassel of Kasigluk applied for Native allotment FF-18979 on November 11, 1970. The 160-acre parcel is located on the west side of Kayigyalik Lake. Kassel claimed use of the parcel

since 1960 from August to May for hunting, fishing, and berry picking.<sup>122</sup> On July 13, 1979, Monna L. Ivy, a BLM Realty Specialist, visited the parcel with Kassel and Leo Beaver, a regional village coordinator for Kasigluk. Ivy stated that Kassel accessed the parcel by boat via the “Johnson River or unnamed stream to Kayigyalik Lake then to the parcel located at the northwest end of said lake.”<sup>123</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10381 on October, 20, 1992. It was certificated as No. 50-93-0584 on September, 22, 1993.

Fred Pavilla Sr. of Nunapitchuk applied for Native allotment F-14238 on December 9, 1970. The 160-acre parcel is located on the northwest shore of Kayigyalik Lake. Pavilla claimed use of the parcel since 1939 for seasonal use for hunting and fishing. He described two improvements on the parcel, a camp and a steam bath house.<sup>124</sup> On August 25, 1979, Dorothy Tideman, a BLM Realty Specialist, visited the parcel with Pavilla. Tideman stated that Pavilla accessed the parcel by boat and sled via Kayigyalik Lake and connecting streams. Pavilla used the parcel to pick raspberries, blackberries, and blueberries, and fish for pike and whitefish, and also to hunt for mink and muskrat.<sup>125</sup> The parcel was officially surveyed and filed as Lot 3, U.S. Survey No. 13031 on June 12, 2001. It was certificated as No. 50-2003-0127 on March 4, 2003.

Marie Gillman of Nunapitchuk applied for Native allotment F-14253 on December 9, 1970. Parcel A is an 80-acre parcel located on the north shore of Kayigyalik Lake. Gillman claimed use of the parcel since 1922 for seasonal use of hunting and berry picking, she did not state which months she used the parcel.<sup>126</sup> Russel Blome, a BLM realty specialist, visited the parcel on August 16, 1979 with Jon Gilman, Marie’s son. Blome stated that Gilman accessed the parcel by “boat during the summer through the various lakes, sloughs and rivers in the vicinity.”<sup>127</sup> The parcel was officially surveyed and filed as Lot 2, U.S. Survey No. 13031 on June 12, 2001. It was certificated as No. 50-2003-0148 on March 19, 2003.

Peter Mochin of Nunapitchuk applied for Native allotment FF-13204 on September 27, 1970. The 160-acre parcel is located on the northwest shore of Kayigyalik Lake. Mochin claimed use of the parcel since 1946 from November to August for hunting mink, beaver and for fishing.<sup>128</sup> On June 6, 1987, Nancy Getchell, a BLM realty Specialist, visited the parcel with Joseph Mochin, Peter’s authorized representative. Getchell stated that Mochin accessed his parcel by boat in the summer and by both snowmachine and dogsled in the winter. She also stated that the applicant used the parcel since 1946 for trapping mink and beaver, fishing for blackfish, and for picking berries.<sup>129</sup> The parcel was officially surveyed and filed as Lot 1, U.S. Survey No. 13031 on July 31, 2002. It was certificated as No. 50-2003-0142 on March 17, 2003.

Anna Wassillie of Nunapitchuk applied for Native allotment FF-14962 on December 9, 1970. Parcel A is an 80-acre parcel is located on the northwest shore of Kayigyalik Lake. Wassillie claimed use of the parcel since 1927 from July to September for fishing and berry picking.<sup>130</sup> Dorothy Tideman, a BLM Realty Specialist, visited the parcel on August 7, 1979, with Wassillie. Tideman stated that Wassillie accessed the parcel by boat through “lakes, rivers, and streams.”<sup>131</sup> The parcel was officially surveyed and filed as Lot 2, U.S. Survey No. 13029 on July 31, 2002. It was certificated as No. 50-2004-0079 on December 15, 2003.

### Waterways #3 and #4

John Wassillie Sr. applied for Native allotment FF- 14963 on December 9, 1970. Parcel A is an 80-acre parcel located on Kayigyalik Lake between the outlets of Waterway #3 and Waterway 4 into Kayigyalik Lake. Wassillie claimed use of the parcel from 1926-1970 June though January 15, stating that he would stay in the village during the winter. He stated that he and his family had been staying in the house on the land since 1946.<sup>132</sup> Dorothy Tideman, a BLM Realty Specialist, visited the parcel on August 7, 1979 with Wassillie. Tideman stated that Wassillie accessed the parcel by boat.<sup>133</sup> The parcel was officially surveyed and filed as Lot 1, U.S. Survey No. 13029 on July 31, 2002. It was certificated as No. 50-2003-0233 on April 29, 2003.

Joseph Toopetlak applied for Native allotment FF-14255 on December 9, 1970. Parcel B is located between Waterway #3 and Waterway #4 between river mile 1 and river mile 2. Toopetlak claimed use of the parcel since 1947 for “seasonal” trapping, fishing, and hunting.<sup>134</sup> Joe C. Morris, Jr., a BLM Realty Specialist, visited the parcel on June 9, 1985 with Toopetlak. Morris stated that Toopetlak accessed his allotment by boat. Morris stated that Toopetlak used the parcel since 1947 in the spring for fishing, muskrat hunting and in the fall for hunting mink.<sup>135</sup> The parcel was officially surveyed and filed as Lot 4, U.S. Survey No. 13050 on July 31, 2002. It was certificated as No. 50-2003-0166 on May 28, 2003.

Alexie Mochin Sr. applied for Native allotment F-18011 on November 14, 1970. The 160-acre parcel is located on Waterway #3 at the confluence of the Waterway #3 and its left bank tributary. Mochin used the parcel since 1920 from November 11 to January for trapping and hunting, from April to June for fishing, and from July to September berry picking. He stated, “I use this land for hunting, trapping, fishing, and berrypicking during seasons. I have no house on it but sleep on my neighbor’s camp not far from here. In summer time I camp on a tent that I pitch.”<sup>136</sup> Joe C. Morris Jr., a BLM Realty Specialist, visited the parcel on June 9, 1985 with Mochin and his son. Morris stated that Mochin accessed his parcel by boat. Morris also stated that Mochin used the area for fishing, hunting and berry picking in the summer and fishing in the fall.<sup>137</sup> The parcel was officially surveyed and filed as Lot 2, U.S. Survey No. 13050 on July 31, 2002. It was certificated as No. 50-2003-0182 on May 28, 2003.

Morris D. Mochin applied for Native allotment F-18198 on November 14, 1970. Parcel A is 80 acres and is located on the left bank tributary of Waterway #3 between river mile 0 and river mile 1. Mochin claimed use of the parcel since 1964 from June to August for “seasonal use” and from June to August as a fish camp and for berry picking.<sup>138</sup> Meg Jensen, a BLM Realty Specialist, visited the parcel on June 2, 1984 with Mochin and his father Alexie. Jensen stated that Mochin accessed his parcel by boat and used the parcel for fishing, berry picking.<sup>139</sup> The parcel was officially surveyed and filed as Lot 3, U.S. Survey No. 13050 on July 31, 2002. It was certificated as No. 50-2003-0212 on April 16, 2003.

Mary G. Mojin applied for Native allotment FF-14968-A on December 9, 1970. Parcel A is 80 acres and is located on a slough on Waterway #4 between river miles 1 and 2. Mojin has used the parcel since 1940 from July to September for berry picking.<sup>140</sup> Russel D. Blome, a BLM Realty Specialist, visited the parcel on August 17, 1979 with Mojin. Blome stated that Mojin

accessed the parcel by “boat from Nunapitchuk via the interconnected waterways in the area.”<sup>141</sup> The parcel was officially surveyed and filed as Lot 5, U.S. Survey No. 13050 on July 31, 2002. It was certificated as No. 50-2003-0257 on May 13, 2003.

Anna Gillman applied for Native allotment FF-14982-B on December 10, 1970. Parcel B is located on Waterway #4 between river mile 2 and river mile 3. Gillman has used this parcel since 1901 for berry picking.<sup>142</sup> Russel D. Blome, a BLM Realty Specialist, visited Parcel A on August 18, 1983 and filed a Field Report. Blome stated that Gillman accessed the parcel by “kayak down the Johnson River from Nunapitchuk to a small slough then northwesterly to the parcel area.”<sup>143</sup> On December 2, 1993 Myron Naneng, President of the Association of Village Council Presidents, wrote a letter to Ann Johnson, BLM Chief of the branch of Calista Adjudication, stating that Anna Gilman’s original Native allotment application included a Parcel B. When her application was typed from the handwritten original, parcel B was left off the typed version. Joseph Toopetluk, Gillman’s son, filed an affidavit on November 29, 1993 stating that his “late mother used to tell me that during the time when she was young she used to use her Native allotment parcel B for berry picking. During those times they used wooden boat and picked berries on parcel B.”<sup>144</sup> The parcel was officially surveyed and filed as Lot 6, U.S. Survey No. 13050 on July 31, 2002. It was certificated as No. 50-2003-0192 on April 11, 2003.

David Hare applied for Native allotment F-13235 on November 2, 1970. The 160-acre parcel is located on the left bank of Waterway #4 at river mile 5. Hare claimed use of his parcel since 1943 from November to December for trapping, fishing, and hunting. He also stated that he used the parcel from July to September for berry picking.<sup>145</sup> Dorothy A. Tideman, a BLM Realty Specialist, visited the parcel on August 27, 1979 with Lloyd Andrew and Nancy Nicholai because David Hare was deceased. Tideman did not state how Hare accessed his parcel.<sup>146</sup> The parcel was officially surveyed and filed as U.S. Survey No. 13026 on July 31, 2002. It was certificated as No. 50-2003-0158 on April 11, 2003.

Carl Thomas White of Nunapitchuk applied for Native allotment F-19128 on June 20, 1972. The 160-acre parcel is located along the first river mile of the left bank tributary of Waterway #4. White claimed seasonal use of his parcel since 1960 from July until October for fishing and hunting.<sup>147</sup> Russel Blome, a BLM Realty Specialist, visited the parcel on August 14, 1979 with White. Blome stated that White first accessed the parcel by dogsled and later began using a snowmachine.<sup>148</sup> The parcel was officially surveyed and filed as Lot 3, U.S. Survey No. 13025 on July 31, 2002. It was certificated as No. 50-2004-0139 on January 20, 2004.

Andrew Wassilie of Kasigluk applied for Native allotment F-18819 on November 30, 1970. The 160-acre parcel is located on Waterway #4 at river mile 7. Wassilie used the parcel since 1946 from November to December for hunting, trapping, and fishing.<sup>149</sup> On July 7, 1979, Clifford D. Ellis visited the parcel with Andrew. Ellis did not state how Andrew accessed the parcel.<sup>150</sup> The parcel was officially surveyed and filed as Lot 1, U.S. Survey No. 13025 on July 31, 2002. It was certificated as No. 50-2004-0093 on December 18, 2003.

Alexie Nicholas of Kasigluk applied for Native allotment F-16567 on March 3, 1970. The 160-acre parcel is located on Waterway #4 at river mile 7. Nicholas used the parcel since 1928 from

November to January for hunting, trapping, and fishing.<sup>151</sup> Clifford D. Ellis, a BLM Realty Specialist, visited the parcel on July 7, 1979 with Nicholas. Ellis did not state how Nicholas accessed the parcel. The parcel was officially surveyed and filed as Lot 1, U.S. Survey No. 13025 on July 31, 2002. It was certificated as No. 50-2004-0093 on December 18, 2003.

Yeako Andrew of Kasigluk applied for Native allotment F-18975 on March 4, 1971. The 160-acre parcel is located on Waterway #4 at river mile 10. Yeako used the parcel since 1956 from September to December for trapping and berry picking.<sup>152</sup> Clifford D. Ellis, a BLM Realty Specialist, visited the parcel on July 7, 1979 with Yeako. Ellis did not state how Yeako accessed the parcel. The parcel was officially surveyed and filed as U. S. Survey No. 13017 on July 31, 2002. It was certificated as No. 50-2003-0273 on May 23, 2003.

Billy Andrew of Nunapitchuk applied for the Native allotment F-14386 on December 9, 1970. Parcels B and C of Andrew's allotment are along the left bank tributary of Waterway #4. Parcel B is 40 acres and is located at river mile 4. Parcel C is 40 acres and is located at river mile 8. Andrew claimed seasonal use of the land since 1952 for fishing, hunting, and trapping. Improvements on the land included a fish rack, a cache, and traps.<sup>153</sup> Dorothy Tideman, a BLM Realty Specialist, visited the parcels with Andrew on August 12, 1979. Tideman did not state how Andrew accessed the parcels. Parcel B was officially surveyed and filed as U.S. Survey No. 13023 on July 31, 2002. Parcel C was officially surveyed and filed as U.S. Survey No. 13016 on July 31, 2002. The allotment was certificated as No. 50-2003-0339 on June 26, 2003.

Joseph Mochin of Nunapitchuk applied for Native allotment F-14961 on December 9, 1970. Parcel A of Mochin's allotment, approximately 80 acres, is located at river mile 0.5 of the left bank tributary of Waterway #3. Mochin claimed seasonal use of the parcel since 1950 from November to January for hunting, trapping, and fishing for blackfish.<sup>154</sup> Rhett Wise, a BLM Appraiser, visited the parcel with Mochin on July 31, 1979. In describing the location of the parcel, Wise noted that, in order to facilitate upstream Native access, the "[s]outhern boundary meanders the unnamed stream to allow Native access to the north. This was discussed with Mr. Mochin and was agreed upon."<sup>155</sup> Wise stated that Mochin accessed the parcel "by river boat via the Johnson River and interconnected waterbodies and by snowmachine."<sup>156</sup> The parcel was officially surveyed and filed as Lot 1, U.S. Survey No. 13050 on July 31, 2002. It was certificated as No. 50-2003-0195 on April 14, 2003.

Sinka Toopelook of Nunapitchuk applied for Native allotment F-14256 on December 9, 1970. Parcel B of Toopelook's allotment, approximately 80 acres, straddles Waterway #3 at its confluence with its left bank tributary. Toopelook claimed seasonal use of the land since 1917 for fishing, trapping, and hunting, and berry picking.<sup>157</sup> Rhett Wise, a BLM Appraiser, visited the parcel with Toopelook on August 1, 1979. Wise stated that, in order to facilitate upstream access, the "northern boundary and western boundary meanders the small unnamed stream to allow continued Native access to land to the north. This was discussed with Mr. Toopelook and agreed upon."<sup>158</sup> Wise also stated that Toopelook accessed the land by "river boat via the Johnson River and interconnected waterbodies and by snowmachine."<sup>159</sup> The parcel was officially surveyed and filed as Lots 7 and 8, U.S. Survey No. 13050 on July 31, 2002. It was certificated as No. 50-2004-0221 on April 30, 2004.

Fannie Charles applied for Native allotment A-70159 on October 23, 1998 on behalf of her deceased husband, Wilson Charles, whose application was lost in the early 1970s. The parcel is 160 acres and is located at river mile 5 along Waterway #3. Charles used the land exclusively since 1941 until he fell ill in 1970. He used the land for hunting waterfowl, trapping, fishing, berry picking, and gathering other various plants.<sup>160</sup> Robin Rodriguez, a BLM Land Law Examiner, visited the parcel with Daniel Charles, the deceased applicant's son on July 22, 2010. Rodriguez stated that the applicant

would access his allotment from Bethel by boat in the summer. He would use a skin boat back in the earlier days taking 2 to 3 days to get to his site camping along the way. Later on he used an aluminum boat with motor. They would use a tram that was built to traverse the lakes. In the winter he would use a dog team and later a snowmobile.<sup>161</sup>

Wilson Charles' application is still being processed.

Moses Pavilla of Atmaultluk applied for the Native allotment A-51112 on April 22, 1985. Parcel A of Pavilla's allotment is 140 acres and is located along the right bank of Waterway #3 from river mile 16.5 to 18.5. Pavilla claimed seasonal use of the land since the late 1940s for picking berries, trapping, and fishing.<sup>162</sup> Richard Stephenson, a BLM Realty Specialist, visited the parcel with Pavilla on June 25, 1987. Stephenson stated that that Pavilla accessed the parcel by boat and snowmachine.<sup>163</sup> The parcel was officially surveyed and filed as U.S. Survey No. 13169 on January 31, 2005. It was certificated as No. 50-2005-0599 on September 30, 2005.

#### Water system between Takslesluk and Kayigyalik Lakes

Mary Beaver of Kasigluk applied for Native allotment F-18021 on March 4, 1971. The 160-acre parcel is located on the western shore of Kayigyalik Lake on the southern shore of Waterway #6. She has used the parcel since 1952 from July to September for berry picking.<sup>164</sup> Richard S. Stephenson, a BLM Realty Specialist, visited the parcel on June 18, 1988 with Mary and Daniel Beaver. Stephenson stated that Beaver accessed the parcel by boat in the summer.<sup>165</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10372 on October, 20, 1992. It was certificated as No. 50-93-0157 on March 8, 1993.

Elena Roland of Bethel applied for Native allotment F-16611 on December 16, 1970. The 160-acre parcel is located on Waterway #6 on the west bank of Kayigyalik Lake. Beaver used the parcel since 1933 from March through October for berry picking. Roland stated on her application that "We used to have a spring and summer camp at Navin Slough. I have been going there as long as I can remember. After 1953, we go there in July and August to pick berries that we depend on for subsistence and a place to reside."<sup>166</sup> Meg Jensen, a BLM Realty Specialist, visited the parcel on July 16, 1984 with Roland. Jensen stated that access to the

parcel was by boat.<sup>167</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10372 on October, 20, 1992. It was certificated as No. 50-93-0334 on July 15, 1993.

Annie Andrew of Nunapitchuk applied for Native allotment F-14515 on December 8, 1970. The 160-acre parcel is located along the eastern bank of an unnamed slough (Waterway #5) in Sec. 31, T. 12 N., R. 75 W., SM. Andrew claimed use of the land since 1920 for berry picking in the summer months.<sup>168</sup> Dwight Hovland, a BLM Natural Resource Specialist, visited the parcel with Andrew Tsikoyak, the husband of the deceased applicant. Hovland stated that the applicant accessed the land by boat.<sup>169</sup> The parcel was officially surveyed and filed as Lot 3, U.S. Survey No. 10380 on October 20, 1992. It was certificated as No. 50-94-0318 on September 7, 1994.

Jimmie Nicolai of Bethel applied for Native allotment F-16337 on December 8, 1970. Parcel A of Nicolai's allotment is 160 acres and is located along the western bank of an unnamed slough (Waterway #5) in Sec. 31, T. 12 N., R. 75 W., SM. Nicolai claimed use of the land seasonally since 1916 for trapping, hunting, and subsistence.<sup>170</sup> Carl Neufelder, a BLM Realty Specialist, visited the parcel on June 25, 1987 with Nicolai. Neufelder stated that Nicolai accessed the land by snowmachine.<sup>171</sup> The parcel was officially surveyed and filed as Lot 4, U.S. Survey No. 10380 on October 20, 1992. It was certificated as No. 50-93-0389 on August 16, 1993.

Agnes Nicolai of Bethel applied for Native allotment F-15734 on December 8, 1970. Nicolai's parcel straddles an unnamed slough (Waterway #5) in Sec. 30, T. 12 N., R. 75 W., SM. Nicolai claimed use of the land seasonally since 1934 for berry picking.<sup>172</sup> Richard Stephenson, a BLM Realty Specialist, visited the parcel with Nicolai on June 12, 1985. Stephenson stated that Nicolai accessed the land by boat.<sup>173</sup> The parcel was officially surveyed and filed as Lots 1 and 2, U.S. Survey No. 10380 on October 20, 1992. It was certificated as No. 50-93-0354 on July 28, 1993.

### Takslesluk Lake

Eliza Chase of Nunapitchuk applied for Native allotment F-17397 on March 2, 1971. Parcel A of Chase's allotment is located along the northeastern shore of Takslesluk Lake. Chase claimed use of the land seasonally since 1944 for berry picking and fishing.<sup>174</sup> Dorothy Tideman, a BLM Realty Specialist, visited the parcel with the applicant's husband, Michael Chase, on August 11, 1979. Tideman did not state specifically how the applicant accessed the parcel, but did state that the applicant's husband showed familiarity with the land by "telling me how his family traveled through the lakes and streams to get to the site."<sup>175</sup> Noting evidence of how travelers have accessed the area, Tideman wrote that

An old historical tramway is located within the vicinity of the parcel. May people have long utilized this general area in common for subsistence purposes...Old rails were on the parcel which the applicant's husband state were used by the Natives to pull boats across land from lake to lake. Shells were found on the

parcel which the applicant's husband stated were from other people hunting in the area.<sup>176</sup>

The parcel was officially surveyed and filed as Lot 3, U.S. Survey No. 10374 on October 20, 1992. It was certificated as No. 50-93-0511 on September 13, 1993.

Bessie Alexie of Bethel applied for Native allotment F-13874 on November 12, 1970. Alexie's allotment is located on the northeastern shore of Takslesluk Lake. Alexie claimed seasonal use of the land since 1920 for berry picking and hunting.<sup>177</sup> Sylvia Hale, a BLM Realty Specialist, visited the parcel with Alexie on June 12, 1984. Hale stated that Alexie accessed the parcel by boat and snowmachine. In the field report Hale noted that the allotment was in conflict with a boat tramway<sup>178</sup> (Figure 29). On January 29, 1992 Alexie filed an affidavit stating her intention to claim the boat tramway as part of her allotment.<sup>179</sup> On February 12, 1992, Alexie filed an affidavit stating that

at the time I began using that land, the tramway was not there...Now that the tramway is there and it has become public access, it is no longer my intention to claim that area with my Native Allotment...I do not want the boat tramway to be included with my Native Allotment claim.<sup>180</sup>

The tramway was excluded from Alexie's allotment in the final survey plat. The parcel was officially surveyed and filed as Lot 2, U.S. Survey No. 10374 on October 20, 1992. It was certificated as No. 50-93-0368 on July 29, 1993.



**Figure 29. Aerial view of tram, looking northerly over FF-13874. Unnamed Lake #7 at north end of tram. Boat on tramway. Photo taken by the BLM on June 12, 1984.**

Florence Toopetluk of Nunapitchuk applied for Native allotment F-14390 on December 9, 1970. Parcel A of Toopetluk's allotment is 80 acres and is located along the northeastern shore of Takslesluk Lake. Toopetluk claimed seasonal use of the land since 1950 for berry picking. There is a house and fish cache on the parcel constructed in 1952.<sup>181</sup> Rhett Wise, a BLM Appraiser, visited the parcel with the applicant's husbands, Joseph Toopetluk, on August 3, 1979. Wise stated that Toopetluk accessed the parcel by river boat.<sup>182</sup> Wise indicated that there were "antiquities, archeological, cultural values in the area" and stated that there was an "old site for portage of boats from Takslesluk Lake by short rail/pulley system northward about 10 chains to an unnamed lake for access to interior lake system. Not claimed by applicant."<sup>183</sup> In the BLM field report prompt for "Access routes on or near the parcel" Wise stated that there was an "old boat over land portage."<sup>184</sup> Though Toopetluk's parcel was moved to accommodate the tramway, the adjacent allotment of Bessie Alexie to the east initially included the tramway and had to be subsequently relocated. A memorandum from Sherm Bell, a BLM Project Inspector, addressing the issue at the time the parcels of Toopetluk and Alexie were being surveyed was included within Toopetluk's file. In the memo, Bell states the following about use of the tramway between the unnamed lake north of Takslesluk Lake (Unnamed Lake #7) and Takslesluk Lake:

[t]his lake, though less than 50 acres, is used by local people as a boat access route to and from Takslesluk Lake. A boat tramway has been constructed between the two lakes and is in constant use by the general public. Heavy use of the tramway was observed by R&M crews while surveying meanders on these lots.<sup>185</sup>

In addition to the meander, Bell writes that the survey crews were instructed to exclude a 5-chain wide corridor between Lots 1 and 2 to avoid conflict with the boat tramway. Providing rationale for these instructions, Bell wrote the following:

To follow the original sketch diagram and ignore the public use of the boat tramway, would surely invite protest. Protests to including the right of way for boat traffic in anyones [sic] native allotment have already been voiced by locals to R&M survey crews while they were in the area. This minor change to both lots will accommodate the public use of the tramway and follow the spirit of the BIA conflict resolution.<sup>186</sup>

Toopetluk's parcel was officially surveyed and filed as Lot 1, U.S. Survey No. 10374 on October 20, 1992. It was certificated as No. 50-93-0366 on July 29, 1993.

Natalia Andrew of Nunapitchuk applied for Native allotment F-14980 on December 9, 1970. Parcel A of Andrew's allotment is 39.99 acres and is located on the north shore of Takslesluk Lake. Andrew claimed seasonal use of the land since 1923 for berry picking.<sup>187</sup> Rhett Wise, a BLM Appraiser, visited the parcel with Andrew on August 2, 1979. Wise stated that Andrew accessed the parcel by "river boat through interconnected streams and lakes."<sup>188</sup> The parcel was

officially surveyed and filed as Lot 4, U.S. Survey No. 13032 on July 24, 2002. It was certificated as No. 50-2003-0495 on September 3, 2003.

Evan Alexie of Nunapitchuk applied for Native allotment F-17532 on March 2, 1971. Alexie's allotment is located approximately ½ mile north of Takslesluk Lake. Alexie claimed seasonal use of the land since 1940 for trapping, fishing, and berry picking.<sup>189</sup> Rhett Wise, a BLM appraiser, visited the parcel with Alexie on July 31, 1979. Wise stated that the applicant accessed the parcel by riverboat, snowmachine, and airplane. He also noted that the lake south of the camp was used for airplane access.<sup>190</sup> The parcel was officially surveyed and filed as Lot 3, U.S. Survey No. 13032 on July 24, 2002. It was certificated as No. 50-2004-0091 on December 18, 2003.

John M. Alexie of Nunapitchuk applied for Native allotment F-17396 on March 2, 1971. Alexie's allotment is located approximately one mile north of Takslesluk Lake. Alexie claimed seasonal use of the land since 1942 for subsistence use including hunting, fishing, and trapping.<sup>191</sup> Dorothy Tideman, a BLM Realty Specialist, visited the parcel with Alexie on August 6, 1979. Tideman did not state how Alexie accessed the parcel.<sup>192</sup> The parcel was officially surveyed and filed as Lot 2, U.S. Survey No. 13032 on July 24, 2002. It was certificated as No. 50-2003-0449 on August 14, 2003.

Alexie Paul of Nunapitchuk applied for Native allotment AA-56432 on April 20, 1985. Parcel A of Paul's allotment is located approximately 1.5 miles north of Takslesluk Lake. Paul claimed seasonal use of the land since 1936 for fishing, trapping, and berry picking.<sup>193</sup> Robert Rinehart visited the parcel with Paul on August 31, 1986. Rinehart stated that Paul accessed the parcel by boat.<sup>194</sup> Parcel A was officially surveyed and filed as Lot 1, U.S. Survey No. 13032 on July 24, 2002. It was certificated as No. 50-2005-0001 on October 1, 2004.

Nicholai Alexie of Nunapitchuk applied for Native allotment F-29792 on April 4, 1962. The parcel is located approximately ¼ mile north of Takslesluk Lake. Alexie claimed use of the land since 1908.<sup>195</sup> Kathy Stubbs, a BLM Realty Specialist, visited the parcel with Nicholai Alexie's son, David Alexie, on July 8, 2003. David Alexie claimed that Nicholai Alexie used the land for hunting, trapping, fishing, and berry picking.<sup>196</sup> David Alexie stated that Nicholai Alexie accessed the land by boat, dog team, and snowmachine.<sup>197</sup> The parcel was officially surveyed and filed as U.S. Survey No. 13787 on July 31, 2008. It was certificated as No. 50-2008-0496 on September 24, 2008.

Golka Maxie of Nunapitchuk applied for Native allotment F-14959 on December 8, 1970. Parcel A of Maxie's allotment is located on the southwesterly shore of Takslesluk Lake. Maxie claimed seasonal use of the land since 1920 for hunting and fishing.<sup>198</sup> Rhett Wise, a BLM Appraiser, visited the parcel with Maxie on August 5, 1979. Wise stated that Maxie accessed the parcel by boat and snowmachine.<sup>199</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10382 on October 20, 1992. It was certificated as No. 50-93-0367 on July 29, 1993.

George Neck of Nunapitchuk applied for Native allotment F-14387 on December 8, 1970. Parcel D of Neck's allotment is located approximately one mile west of Takslesluk Lake. Neck

claimed seasonal use of the land since 1956 for trapping and hunting.<sup>200</sup> Dorothy Tideman, a BLM Realty Specialist, visited the parcel with Neck on August 25, 1979. Tideman stated that Neck accessed the parcel by boat.<sup>201</sup> The parcel was officially surveyed and filed as U.S. Survey No. 10353 on October 20, 1992. It was certificated as No. 50-93-0393 on August 16, 1993.

*Native Travel on the Takslesluk-Kayigyalik Lake System Documented in BLM  
ANSCA and USF&WS Documents and State Subsistence Studies*

The Takslesluk-Kayigyalik Lake System is used extensively for subsistence harvesting throughout the year by *Akulmiut* living within the area as well as Native groups outside of the villages of Nunapitchuk, Kasigluk, and Atmautluak. Studies on subsistence harvesting within the Takslesluk-Kayigyalik Lakes System area began in the early 1980s. In a 1983 survey of households in Nunapitchuk, 100% of the households surveyed participated in the subsistence harvest of freshwater fishes and berries; 94% participated in waterfowl harvests and small game hunting; 82% participated in hunting and trapping of furbearers; and, 65% participated in salmon fishing.<sup>202</sup>

During open water seasons, boats are used extensively in all subsistence activities as harvesters travel widely throughout the region from the Johnson River to Baird Inlet.<sup>203</sup> In an Alaska Department of Fish and Game subsistence report, Elizabeth Andrews identified *Akulmiut* seasonal settlements through Yup'ik place names. The place names study found that *Akulmiut* seasonal settlements existed throughout the area from Johnson River to an area west of Aropuk Lake (Figure 27, page 42). The Takslesluk-Kayigyalik Lake System continues to provide the main inland route for travel between the eastern and westernmost extend of seasonal settlement patterns.

In 1964, a study entitled "Waterfowl in the Economy of the Eskimos on the Yukon-Kuskokwim Delta, Alaska" was undertaken by David Klein of the Alaska Cooperative Wildlife Research Unit. The study, funded by the U.S. Bureau of Sport Fisheries and Wildlife, was initiated in order to gather basic information on the general presence of waterfowl harvest in the economy of the Eskimos of the Yukon-Kuskokwim Delta. Klein found that the egg gathering and bird drives of the Eskimos in the region were still "undertaken in essentially the same manner as they were in the past, although the use of outboard motors has added to the mobility of the Eskimo and motor powered boats are a definite asset in conducting drives on large lakes or lake systems."<sup>204</sup> Describing the modern bird drives, Klein wrote that

Drives require considerable organization and advance planning within the village. Boats must be committed to transport the people to the area chosen and to be used in the actual operations on the lakes. The birds are herded into one large flock by boats and kayaks and are then forced onto the land where additional people frighten the birds ahead of them into fish nets in which they become entangled, or through a line of waiting people who kill the birds with clubs.<sup>205</sup>

With regard to the number of birds harvested in a drive, Klein writes that, in order to be worthwhile, a drive must involve at least “several hundred birds” and his estimate on the average take per drive was “between one and two thousand birds.”<sup>206</sup>

Klein’s study provided baseline information from which subsequent studies on waterfowl harvest in the Yukon-Kuskokwim Delta could draw. In 1983, a household survey indicated that waterfowl harvesting areas were prevalent throughout the Takslesluk-Kayigyalik Lake System (Figure 30). USF&WS waterfowl surveys have been conducted yearly since 1985 with the exception of 1998 and 2003, when no surveys were conducted.<sup>207</sup> For the years 2001-2005, waterfowl comprised, on average, 2%-6% of the total subsistence food supply during the year for Alaska Natives of the Yukon-Kuskokwim Delta. Though a small percentage of the total subsistence harvest for the entire year, waterfowl are a much larger percentage of the spring subsistence harvest, between April and June.<sup>208</sup> Once waterways are ice-free during this time, boats are used to hunt or trap waterfowl as well as transport the harvest and supplies.

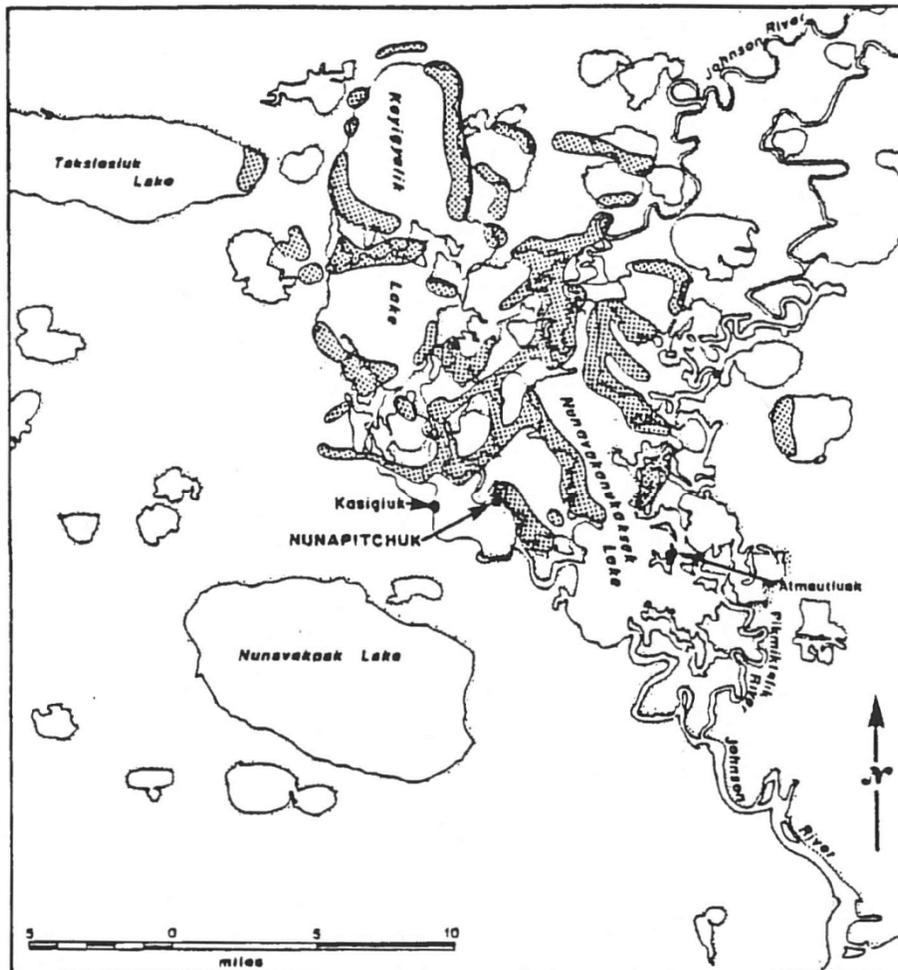
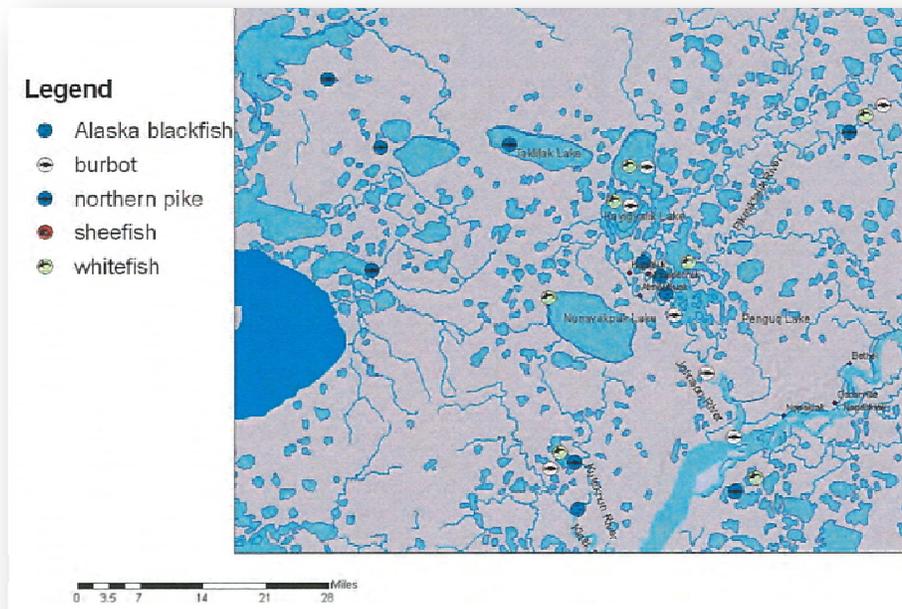


Figure 30. Waterfowl hunting areas used by Nunapitchuk residents, 1983.  
Source: Elizabeth Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, TP No. 177, p. 325.

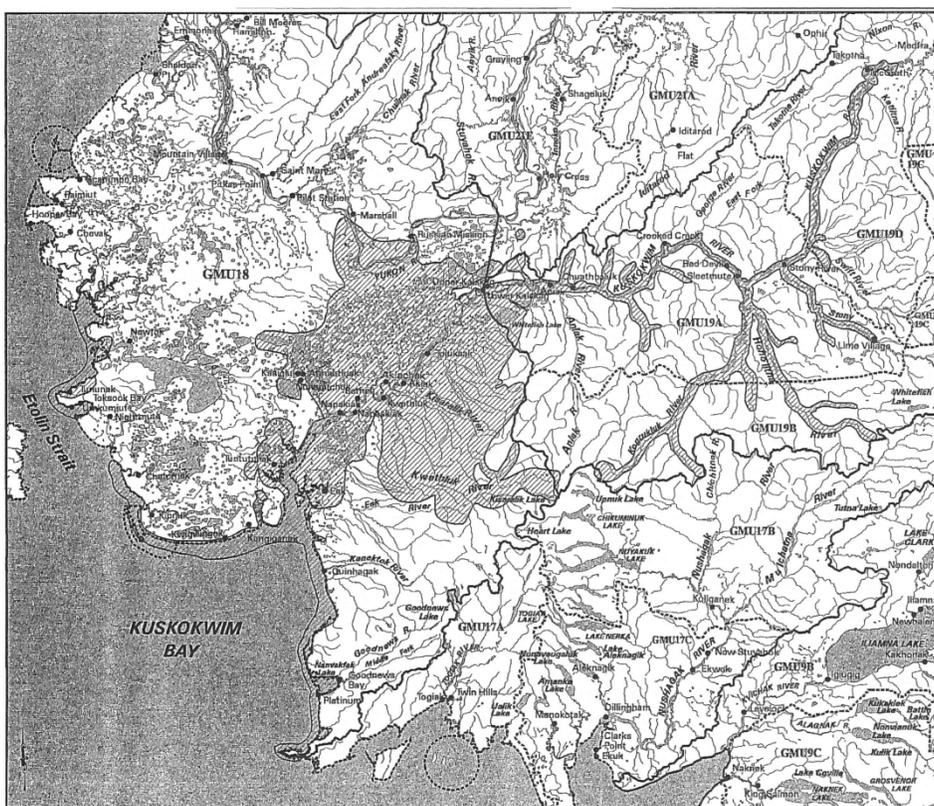
Non-salmon fish species have long been an important part of subsistence within *Akulmiut* villages.<sup>209</sup> Seasonal camps and old village locations are often placed near good fishing locations because of the importance of the food source. Residents report that they “commonly fish for nonsalmon fishes in Takslesluk and Kayigyalik lakes, as well as in a region near Newtok, along the shores of Baird Inlet” as well as “the area of smaller lakes falling between Baird Inlet and Aropuk and Takslesluk lakes.”<sup>210</sup> In addition to *Akulmiut* village residents traveling west toward Baird Inlet to fish, residents of villages on the coast, including some on Nelson Island, travel the inland lakes region to *Akulmiut* villages to harvest non-salmon species of fish. Other villages desire whitefish from *Akulmiut* village areas because of the reputation of the abundance and quality of the fish there.<sup>211</sup> This has led to the commercial sale or barter of whitefish from this region to people on the Bering Sea coast, which was also a traditional economic pattern between *Akulmiut* and Bering Sea coast villages.<sup>212</sup>

Boats are utilized for non-salmon fishing by setting nets, dipnetting, and drifting for fish during the spring, summer, and fall.<sup>213</sup> A 2010 report on non-salmon subsistence harvest, which included Nunapitchuk as one of the sample areas, found that Nunapitchuk residents traveled the most broadly for non-salmon fish during the spring fishing season (Figure 31). Until recently whitefish were caught in the fall using fences. A Nunapitchuk resident, speaking about the old way of catching fish, reported that when he “was young, up until I was about early twenties, we’d take a boat out to the fish fence, dipnet fill the whole boat, bring it up and then our parents would cut some and then put some underground to ferment for the winter.”<sup>214</sup> Set-nets later replaced the use of fish fences.



**Figure 31. Nunapitchuk spring fishing areas. Source: Lily Ray, et al., Local Knowledge and Harvest Monitoring of Nonsalmon Fishes In the Lower Kuskokwim River Region, Alaska, 2005-2009, p. 54.**

The Takslesluk-Kayigyalik Lake System is used by residents of villages outside of the *Akulmiut* 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 Takslesluk-Kayigyalik Lakes System (Figure 32). Akiachak residents traveled to the Takslesluk-Kayigyalik Lake System to harvest non-salmon fish, small land mammals, waterfowl, and plants and berries. Boats and snowmachine or ATV, 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.<sup>215</sup>

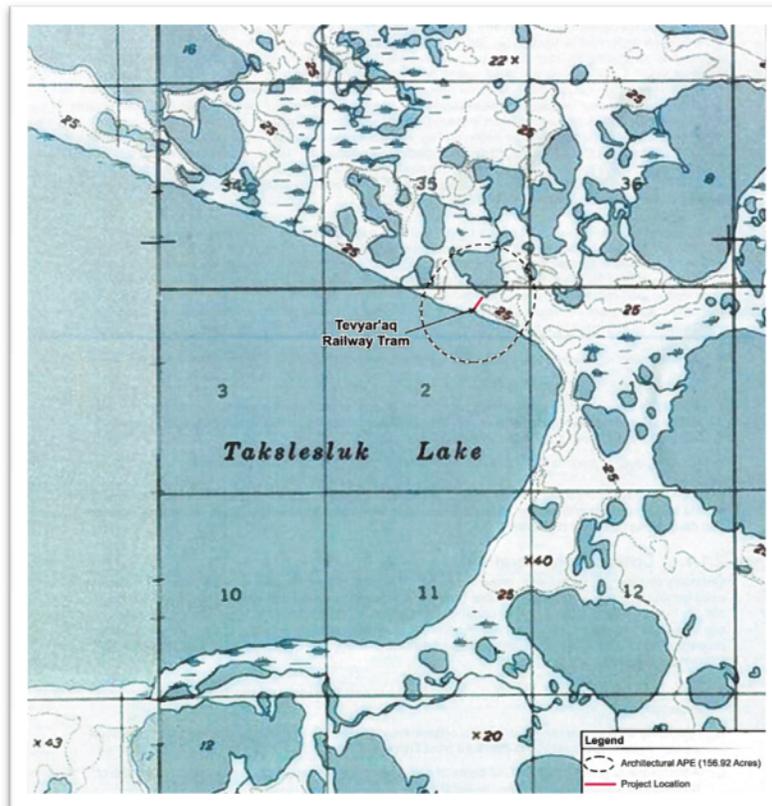


**Figure 32. Areas used by Akiachak residents for subsistence hunting, fishing, and gathering, 1988-1997. Source: ADF&G Subsistence Report, The Subsistence Harvest and Use of Wild Resources in Akiachak, Alaska, 1998, TP No. 258, p. 157.**

### *Tevyar’aq Portage System*

The Tevyar’aq portage is located approximately 14 miles northwest of Kasigluk, AK, within the water system between Kayigyalik Lake and Takslesluk Lake (Figure 33). Tevyar’aq, which means “place to portage” in Yup’ik,<sup>216</sup> is a traditional portage along the main route of travel between the

tundra villages of the Johnson River area to the coastal communities of Nelson Island. Many Native elders remember hauling wooden boats across the portage by hand before 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.”<sup>217</sup>



**Figure 33. Location of Tevyar'aq railway tram.**  
 Source: Atkins, Cultural Resources Report, p. 6.

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.<sup>218</sup> The tram runs between Unnamed Lake #7 and Takslesluk Lake. A 2012 Cultural Resources Report identified Tevyar’aq as “a key element along an approximate 100-mile-long traditional subsistence route, which traverses lakes, rivers, and sloughs.”<sup>219</sup> The tram is mainly used by residents of Kasigluk, Nunapitchuk, and Atmautluak and Nelson Island Villages near the western terminus of the route which 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.<sup>220</sup>

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.”<sup>221</sup> 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.”<sup>222</sup> 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 routes western end travel along the route “for cheap shopping in the hub city of Bethel.”<sup>223</sup> Residents of Akulmiut villages routinely use riverboats with outboard motors to travel through the portage system (Figure 34).



**Figure 34. Riverboat with outboard motor being pushed along Tevyar'aq tram. Source: Atkins, Cultural Resources Report, Tevyar'aq Tram Project (AK DEN 2009(13)), August 24, 2012.**

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.<sup>224</sup> 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 35).



**Figure 35. 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.<sup>225</sup>

In July of 2003, Ted Horner made a round trip journey in a 16-foot aluminum johnboat with an outboard motor from Bethel, through the Tevyar'aq portage, to Baird Inlet and back up the Yukon River (Figure 36). The trip was approximately 800-miles. Horner traveled up the Johnson River, through the Takslesluk-Kayigyalik Lake System, and through Baird Inlet to Hazen Bay. On the return trip, Horner left Hazen bay and traveled up the Aphrewn and Kashunuk rivers to the Yukon River. From the Yukon River Horner traveled through the

Yukon-Kuskokwim portage, down the Johnson River and back to Bethel. 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 37). 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 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.<sup>226</sup>



**Figure 36. Ted Horner's boat trip route.**  
 Source: “Completing the Circle of the Delta,” *The Delta Discovery*.



**Figure 37. Ted Horner's boat on the Tevyar'aq tram.**  
Source: "Completing the Circle of the Delta," *The Delta Discovery*.

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 johnboat with an outboard motor (Figure 38).<sup>227</sup> 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.



**Figure 38. 18' boat with outboard motor on Tevyar'aq tram.**

## **VI. Summary**

In 1976, the BLM determined as non-navigable the system of lakes and sloughs adjoining Kayigyalik Lake to the south, along with the Johnson River adjoining Kayigyalik Lake north of Nunapitchuk and Kasigluk. No criterion of navigability was given for the determinations. All subsequent navigability determinations on these water bodies, in 1980, 1981, 1982, 1989, and 2007, determined that they were navigable. The 1989 determination was made using the criterion of a “craft larger than one-person kayak.” The remaining determinations were made using the criterion of “travel, trade, and commerce.”

Kayigyalik Lake, including its eastern portion sometimes considered separately, was determined navigable by the BLM in 1980, 1981, 1982, and 2007. The navigability determinations in 1989 excluded Kayigyalik Lake from consideration due to it being larger than fifty acres. The navigability criterion the BLM used for the 1980 determination on the eastern portion of Kayigyalik Lake was not stated. For the remaining determinations for Kayigyalik Lake, including the eastern portion, the criterion used was “travel, trade, and commerce.”

In 1989, the BLM determined many sloughs and streams adjoining Kayigyalik Lake to be navigable. These included the following: the stream between Kayigyalik Lake and unnamed lake to the east in Sec. 7, T. 11 N., R. 74 W., SM; the slough in Secs. 27 and 34, T. 11 N., R. 74 W., SM; the stream in Secs. 7 and 8, T. 11 N., R. 75 W., SM; the stream in Secs. 29 and 30, T. 11 N., R. 75 W., SM; the slough with mouth in Kayigyalik Lake in Sec. 6, T. 10 N., R. 75 W., SM; the slough connecting unnamed lake with Kayigyalik Lake in Sec. 12, T. 10 N., R. 75 W., SM; and the slough in Secs. 1 and 12, T. 10 N., R. 75 W., SM. The navigability criterion used for these determinations was “craft larger than one-person kayak.”

Waterway #3 up to its left bank tributary and the left bank tributary of Waterway #3 up to river mile one were determined navigable by the BLM in 1989. The criterion used for the determination was “craft larger than one-person kayak.” No other determinations on these water bodies have been made.

Waterway #4 up to river mile 8, the left bank tributary of Waterway #4 through river mile 4.25, and the right bank tributary of Waterway #4 in Sec. 18, T. 12 N., R. 74 W., SM, were determined to be navigable by the BLM in 1989. The criterion used for the determination was “craft larger than one-person kayak.” In 2002, the BLM determined that Waterway #4 was non-navigable through Native allotment parcels from river miles 6 to 7.5. Also, the left bank tributary of Waterway #4 was determined non-navigable through Native allotment parcels at river mile 4 and river mile 8. The navigability criterion for these determinations was “craft larger than one-person kayak.”

In 1989, the BLM determined Waterway #6 to be navigable. The navigability criterion used for the determination was “craft larger than one-person kayak.” No other determinations were made for this waterway or any water bodies within the water system between Kayigyalik and Takslesluk Lakes.

In 1989, the BLM determined several streams adjoining Takslesluk Lake to be navigable. These streams included the following: the Takslesluk Lake influent in Sec. 25, T. 12 N., R. 78 W., SM; the stream in Sec. 1 to its mouth in Sec. 5 of T. 11 N., R. 78 W., SM; and the stream in Secs. 17, 18, and 19, T. 11 N., R. 76 W., SM. The navigability criterion used for these determinations was “craft larger than one-person kayak.” In 2007, these streams and all water bodies along the eastern, southern, and western shores of Takslesluk Lake in T. 11 N., R. 76 W., T. 11 N., R. 77 W., T. 11 N., R. 78 W., and T. 12 N., R. 78 W., SM., were determined non-navigable. Takslesluk Lake within these townships was also found to be non-navigable. The navigability criterion used for the determinations was “travel, trade, and commerce.”

The Takslesluk-Kayigyalik Lake System, which comprises two larger lakes, several smaller lakes, and a network of unnamed streams, sloughs, and portages, appears to be in its natural and ordinary condition since the time of statehood.

The Takslesluk-Kayigyalik Lake system has a long history of use. In the historic period prior to statehood, the earliest known users were the *Akulmiut*, who lived within the Takslesluk-Kayigyalik Lake System and regularly engaged in subsistence activities throughout the area. The lake system was also a major route of inter-village travel for 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 consisted of 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 fur-bearers, fishing, berry and plant harvesting, and waterfowl drives. Native residents used some of the resources for sustenance and distributed the rest for ceremonial, sharing, partnership activities, as well as trade and commercial exchange throughout the region. During the open water seasons, the *Akulmiut* used kayaks and large skin boats were used to transport themselves, subsistence hunting gear, and their harvested resources between seasonal camps and the winter village as well as villages throughout the Yukon-Kuskokwim Delta for trade and exchange purposes. By the mid-1920s, the *Akulmiut* began to incorporate motorized boats and equipment from the commercial fishing industry in the area. Beginning with attaching sails to traditional boats, by the 1930s, Natives throughout the Yukon-Kuskokwim Delta, including the *Akulmiut*, were adopting wooden planked boats with small outboard motors.

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 Takslesluk-Kayigyalik Lake System was plentiful in fur-bearing animals and became a major source of furs gathered in the area. In addition to gathering furs within the lake system, it provided traders with a route of travel to villages along in the Baird Inlet-Aropuk Lake area.

Of the forty-five Native allotments in the Takslesluk-Kayigyalik Lake System, the BLM files document that thirty-five of the allotments were accessed by boats. This included two elders

who accessed their parcels since the 1900s, two since the 1910s, ten since the 1920s, four since the 1930s, eight since the 1940s, five since the 1950s, and four since the 1960s.

Since statehood (1959) subsistence activities within the Takslesluk-Kayigyalik Lake 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 Takslesluk-Kayigyalik Lake System continues to function as an inland route for inter-village travel for both Natives and non-Natives.

## Endnotes

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<sup>2</sup> Elizabeth Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, Technical Paper Number 177, ADF&G, Division of Subsistence, Juneau, Alaska, May 1989, pp. 514-518.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Ibid., p. 943.

<sup>6</sup> Deborah D. Rudis, *Yukon Delta National Wildlife Refuge Contaminant Assessment*, U.S. Fish and wildlife Service, Juneau Field Office, Alaska, p 3.

<sup>7</sup> David S. Case and David A. Voluck, *Alaska Natives and American Laws*, University of Alaska Press, Fairbanks, 1984, p. 109.

<sup>8</sup> Wayne R. Dawson, BLM Realty Specialist, Kasigluk Easement Meeting, January 15, 1976, BLM files, F-14873.

<sup>9</sup> Patrick Beckley, BLM Realty Specialist, Task Force Meeting on Nunapitchuk, January 27, 1976, BLM files, F-14914-EE.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

<sup>12</sup> Horace Sanders, BLM Natural Resource Technician, Task Force Meeting on Nunapitchuk, April 4, 1976, BLM files, F-14873-EE.

<sup>13</sup> Curtis V. McVee, BLM State Director, Notice of Proposed Easement Recommendations for the Village of Kasigluk, November 4, 1978, BLM files, F-14873-EE.

<sup>14</sup> Irvin Brink, Chairman of Kasigluk Incorporated, Letter to the BLM concerning easement proposals, December 21, 1976, BLM files, F-14873.

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<sup>16</sup> Curtis V. McVee, BLM State Director, Final Easements for the Village of Kasigluk, April 7, 1978.

<sup>17</sup> Joan Antonson-Mohr, Historian, 2-Way Memo on Atmautluak, Nunapitchuk, and Kasigluk selection areas, January 21, 1980, BLM files F-14914-EE.

<sup>18</sup> Joan Antonson-Mohr, BLM Historian, Supplement to Resources response dated 21 January 1980 to memo from ANCSA Easement Identification dated is January 1980, January 28, 1980, BLM files, F-14835-EE.

<sup>19</sup> Sherman Berg, BLM Realty Specialist, Re-review of Navigability Determinations, April 3, 1980, BLM files, F-14914-EE.

<sup>20</sup> Curtis V. McVee, BLM State Director, Final Easements for the Village of Nunapitchuk, May 22, 1982, BLM files, F-14914-EE, p. 1.

<sup>21</sup> Ibid., p. 2.

<sup>22</sup> Ibid., p. 1.

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- <sup>24</sup> Fred Wolf, BLM State Director, Final Easements for the Village of Kasigluk, May 26, 1981, BLM files, F-14873-A.
- <sup>25</sup> Ibid.
- <sup>26</sup> Sandra C. Thomas, Decision to Interim Convey, March 2, 1982, BLM files, F-14873-A.
- <sup>27</sup> Robert D. Arnold, BLM Assistant to the State Director for Conveyance Management, Interim Conveyance No. 595, December 27, 1982, BLM files, F-14873-A.
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- <sup>29</sup> Ibid., p. 4
- <sup>30</sup> George J. Andrew Sr., Vice Chairman Calista Corporation, Approval to Modify Navigability Determination on IC'd Lands, July 25, 1990, BLM files, F-14914-A.
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- <sup>42</sup> Ibid., p. 1.
- <sup>43</sup> Roger Clay, *A Compilation of Hydrologic Data on the Kuskokwim Region*, Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys, Anchorage, 1983, p. 408.
- <sup>44</sup> See notes from the following surveys: USS 8442, officially filed May 14, 1986; USS 10369, officially filed October 20, 1992; USS 10368, officially filed October 20, 1992; USS 10373, officially filed October 20, 1992; USS 10381, officially filed October 20, 1992.
- <sup>45</sup> See notes from the following surveys: USS 13029, officially filed July 31, 2002; USS 13050, officially filed July 31, 2002
- <sup>46</sup> Ibid.
- <sup>47</sup> USS 10380, officially filed October 20, 1992.
- <sup>48</sup> Clay, *A Compilation of Hydrologic Data on the Kuskokwim Region*, p. 558.
- <sup>49</sup> See field notes from the following surveys: USS 10374, officially filed October 20, 1992; USS 10382, officially filed October 20, 1992
- <sup>50</sup> Lidia L. Selkregg, ed., *Alaska Regional Profiles: Southwest Region*, University of Alaska, Arctic Information and Data Center, Anchorage, pp. 11-15.
- <sup>51</sup> James W. VanStone, "Mainland Southwest Alaska Eskimo," in *Handbook of North American Indians, Volume V, Arctic*, David Damas, editor, Smithsonian Institute, Washington, D.C., 1984, pp. 227-229.
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- <sup>54</sup> Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, p. 73.
- <sup>55</sup> Ibid., pp. 73-76.

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- <sup>56</sup> VanStone, "Mainland Southwest Alaska Eskimo," p. 224.
- <sup>57</sup> Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, p. 348.
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- <sup>59</sup> *Ibid.*, p. 73-74
- <sup>60</sup> Steve Langdon and Rosita Worl, *Distribution and Exchange of Subsistence Resources in Alaska*. Alaska Department of Fish and Game Technical Paper Number 55, Arctic Environmental Information and Data Center, University of Alaska, Anchorage, 1981, pp. ii, 1.
- <sup>61</sup> U.S. Department of the Interior, "Bay Proposed Resource Management Plan and Final Environmental Impact Statement," Bureau of Land Management, Anchorage Field Office, 2007, pp. 3-65 to 3-67.
- <sup>62</sup> VanStone, "Mainland Southwest Alaska Eskimo," p. 205.
- <sup>63</sup> *Ibid.*, p. 206.
- <sup>64</sup> Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, p. 269; Wendell H. Oswalt, *Bashful No Longer*, University of Oklahoma Press, 1990, p. 26
- <sup>65</sup> Oswalt, *Bashful No Longer*, p. 26.
- <sup>66</sup> Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, pp. 258-260; Oswalt, *Bashful No Longer*, pp. 25-30
- <sup>67</sup> Robert Porter, "Report on Population and Resources of Alaska at the Eleventh Census: 1890," *The Miscellaneous Documents of the House of Representatives for the First Session of the Fifty-Second Congress, 1891-92*, Vol. 50, part 9, Washington D.C.: Government Printing Office, 1985, p. 105.
- <sup>68</sup> Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, p. 269; Oswalt, *Bashful No Longer*, pp. 261-263.
- <sup>69</sup> *Ibid.*, pp. 25-31.
- <sup>70</sup> Wendell H. Oswalt, *Mission of Change in Alaska: Eskimos and Moravians on the Kuskokwim*, Huntington Library, San Marino, California, 1963, pp. 116-132.
- <sup>71</sup> Oswalt, *Mission of Change in Alaska*, p. 119.
- <sup>72</sup> Porter, "Report on Population and Resources of Alaska at the Eleventh Census: 1890," p. 99.
- <sup>73</sup> *Ibid.*, p. 104.
- <sup>74</sup> *Ibid.*, p. 358.
- <sup>75</sup> Robert J. Wolfe, Joseph J. Gross, Steven J. Langdon, John M. Wright, George K. Sherrod, Linda J. Ellanna, Valerie Sumida and Peter J. Usher, *Subsistence-Based Economies in Coastal Communities of Southwest Alaska*, ADF&G Technical Paper Number 89, Division of Subsistence, ADF&G, Juneau and Minerals Management Service, Alaska Region, U.S. Department of the Interior, Anchorage, February 1984, pp. 169-170.
- <sup>76</sup> Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, p. 121.
- <sup>77</sup> Porter, "Report on Population and Resources of Alaska at the Eleventh Census: 1890," p. 104.
- <sup>78</sup> *Ibid.*, p. 135.
- <sup>79</sup> Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, p. 150.
- <sup>80</sup> Wolfe, et al., *Subsistence-Based Economies in Coastal Communities of Southwest Alaska*, pp. 169-170; Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, p. 137.
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- <sup>82</sup> Edward W. Nelson, "A Sledge Journey in the Delta of the Yukon, Northern Alaska," *Proceedings of the Royal Geographical Society and Monthly Record of Geography*, Vol. 4, No. 11, p. 669.
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- <sup>84</sup> Andrews, *The Akulmiut: Territorial Dimensions of a Yup'ik Eskimo Society*, pp. 97-104.
- <sup>85</sup> *Ibid.*, p. 178.
- <sup>86</sup> *Ibid.*, pp. 174-176.
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