

**KWETHLUK RIVER**  
**HUC 30502, Zone 2, Kuskokwim River Region**

**FINAL**  
**INTERIM SUMMARY REPORT**

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## **PREFACE**

The research and writing of this study is funded by the U.S. Department of the Interior, Bureau of Land Management (BLM) through the Navigability Assistance Agreement (Cooperative Agreement # LO9AC15466). The State of Alaska (State) and the BLM established an assistance agreement in 2004 to facilitate the preparation of navigability reports that could be used for a variety of purposes, including the process for determining who owns title to the land under inland water bodies. Under the Statehood Compact, land under navigable waterways is reserved to the State. Navigability is based on historic use of water bodies for travel, trade and commerce up to the time of Statehood (1959), or recent use of the water bodies that demonstrates susceptibility to travel, trade and commerce in 1959.

The Navigability Assistance Agreement began as a pilot project focused on researching the history of use of water bodies in the Kuskokwim River region. The scope of work for the Assistance Agreement calls for identifying potentially navigable water bodies where the United States is an upland landowner or has 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. 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 the files of 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 was conducted by State employees working under the guidance of an Assistance Agreement Management Team composed of representatives of the BLM and the State of Alaska. 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, see the Alaska Department of Natural Resources web site: <http://www.dnr.state.ak.us/mlw/nav/naar/>

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## **Attachments (in PDF format)**

- Attachment 1.** Curtis McVee, Notice of Proposed Easement Recommendations for the Village of Kwethluk, October 13, 1978, BLM Files, F-14883-EE.
- Attachment 2.** Chuin W. Whittick, Amendment to Final Easements for the Village of Kwethluk, October 11, 1978, BLM files, F-14883-EE.
- Attachment 3.** W.R.D. [Wayne R. Dawson], Navigability Field Report, Physical Data, Kwethluk River, November 4, 1975, BLM files, F-14883-EE.
- Attachment 4.** Letter from Frank A. Stefanich, Access Project Leader in the ADF&G Habitat Protection Section, to Horace Sanders of BLM, May 9, 1977, BLM Files, F-14883-EE.
- Attachment 5.** Judith A. Kammins, Decision: Lands Proper for Village Selection Approved for Interim Conveyance to Kwethluk, Inc., March 7, 1979, BLM files, F-14883-A.
- Attachment 6.** Letter by Allan Carson, Acting Director of the State Division of Lands, to Kwethluk Incorporated, March 23, 1979, BLM files, F-14883-A.
- Attachment 7.** Interim Conveyance No. 213 to Kwethluk Incorporated, July 20, 1979, and Interim Conveyance No. 214 to Calista Corporation, July 20, 1979, BLM files, F-14883-A.
- Attachment 8.** MTPs for the Kwethluk River area.
- Attachment 9.** Harold E. Wolverton to Kwethluk, Inc., March 11, 1983, BLM files, F-14883-EE.
- Attachment 10.** Letter from Martin L. Karstetter, Acting Chief, BLM Branch of Easement Identification, to Moses Nicolai, Kwethluk, Inc., December 9, 1983, and Robert W. Arndorfer, Deputy State Director for Conveyance Management, BLM Release of Interest to Kwethluk, Incorporation on Easements EIN 2 L and EIN 14 C for Interim Conveyance 213, December 2, 1983, BLM files, F-14883-EE.
- Attachment 11.** Robert W. Faithful IV, Final Navigability Determination for BIA School Site at Kwethluk, February 28, 1983, BLM files, F-14883-EE.
- Attachment 12.** Interim Conveyance No. 790 to Kwethluk, Inc. and Interim Conveyance No. 791 to Calista, January 31, 1984, BLM files, F-014883-A.
- Attachment 13.** Letter from C. Michael Brown to Phil Guy of Kwethluk Incorporated., May 26, 1987, BLM files, F-14883-A.
- Attachment 14.** Phillip Guy, Land Planner, Kwethluk Incorporated, to Mike Brown, BLM, June 3, 1987, BLM files, F-14883-EE.

- Attachment 15.** Robert W. Andorfer, Memorandum on Navigable Waters in Group Survey 253 (Window 1837), August 12, 1988, BLM files, F-15854.
- Attachment 16.** Wayne A. Boden, Memorandum on Navigable Waters in Group Survey No. 268 (Window 1836), May 8, 1989, BLM files, F-14883.
- Attachment 17.** Wayne A. Boden, Memorandum on Navigable Waters in Group Survey 253 (Window 1837), November 6, 1991, BLM files, F-14883 (75.4).
- Attachment 18.** Michael Brown, Navigable Waters Specialist, to Michael B. Rearden, Refuge Manager of Yukon Delta NWR, December 13, 1995; and Brown, "Navigability Status Report for Bogus Creek, Tuluksak River, Little Kasigluk River, Kisaralik River, Akulikutak River, Kwethluk River, Eek River, and Gweek River in the Kuskokwim River Region," December 1995, BLM files, 2628 (930).
- Attachment 19.** Laura Lagstrom, Navigability Report: Left Bank Tributary of Kwethluk River in Native Allotments F-19245-A, F-18189-C, F-15926 and Regional Selection AA-10429, Mouth in Sec. 36, T. 6 N., R. 68 W., SM, Window 2029, Group Survey 284, January 8, 1998, BLM files, FF-14883-EE.
- Attachment 20.** Laura Lagstrom, Navigability Report: Left Bank Tributary of an Anabranch of the Kwethluk River in Native Allotments F-17052-B, and F-17210-B, Mouth in Sec. 12, T. 7 N., R. 69 W., SM, Window 2029, Group Survey 284, January 8, 1998, BLM files, FF-14883-EE.
- Attachment 21.** Laura Lagstrom, Navigability Report: Right Bank Tributary of Kwethluk River in Native Allotment F-16012, Mouth in Sec. 8, T. 5 N., R. 67 W., SM, Window 2029, Group Survey 284, January 8, 1998, BLM files, FF-14883-EE.
- Attachment 22.** Laura Lagstrom, Navigability Report: Anabranch of Kwethluk in Native Allotment F-17052B, downstream mouth in Sec. 15, T. 8 N., R. 69 W., SM and upstream mouth in Sec. 17, T., 7 N., R. 68 W., SM, Window 2029, Group Survey 284, January 8, 1998, BLM files, FF-14883-EE.
- Attachment 23.** Gust C. Panos, Memorandum on Navigability Review for Waters in Window 2029 Bethel (Group 284) Part 1, January 13, 1998, BLM files, FF15883 (75.4).
- Attachment 24.** Jane Angvik, Director of Division of Lands, to Gust C. Panos, Chief of BLM Branch of Mapping Sciences, June 3, 1998, DNR/PAAD file on Kwethluk River.
- Attachment 25.** William C. Johnston, Memorandum on 19 Additional Native Allotments in Survey Window 2700, June 17, 1998, and Laura J. Lagstrom, Navigability Report: Kwethluk River in T. 1 N., Rs. 62 & 63 W., SM and T. 1 S., Rs. 62 & 63, W., SM, June 17, 1998, BLM files, Bethel-NA-FY'98.
- Attachment 26.** Dominica VanKoten, Memorandum on Navigable Waters within (Veterans) Native Allotment Application AA-082909, November 9, 2006, BLM files, AA-082909 (2568).

- Attachment 27.** Corrected Interim Conveyance No. 1964 and No. 1965, April 6, 2006, BLM files, F-14833-A.
- Attachment 28.** Kara Marciniec, Decision to Interim Convey lands to Bethel Native Corporation and Calista Corporation, December 15, 2006, BLM files, F-14838-B.
- Attachment 29.** Interim Conveyance No. 2063 to Bethel Native Corporation and Interim Conveyance No. 2064 to Calista, January 30, 2007, BLM files, F-14838-B.
- Attachment 30.** Dominica VanKoten, Memorandum on Navigable Waters within Survey Group Nos. 140, 268, and 284, March 16, 2007, BLM file F-14835-A (2651).
- Attachment 31.** Laura Lagstrom, memorandum on Interviews for Native Allotment selections added to Window 2700 which straddle Kwethluk and Eek River, March 13, 1998, p. 1, BLM files, Bethel-NA-FY98.
- Attachment 32.** Laura Lagstrom, memorandum on Interviews for selected lands within [Survey] Window 2029, Part I, December 8, 1997, p. 5, BLM files, FF-14824 (75.4).
- Attachment 33.** Gust C. Panos, memorandum on Navigability Review for Waters in Window 2700, November 7, 1997, BLM files, 9600 (924).
- Attachment 34.** W.R.D. [Wayne R. Dawson], Navigability Field Report, Historical or Present Use Data, November 4, 1975, BLM files, F-14883-EE.
- Attachment 35.** Lew Reece of Bethel to BLM, May 5, 1976, BLM files, F-14883.
- Attachment 36.** Curtis McVee, Memorandum on Amendment to the Final Easements for Kwethluk Village, September 22, 1978, amending the memorandum dated March 24, 1977, BLM files, F-14883-EE.
- Attachment 37.** William R. Snell, Central Region Director of ADOT&PF, to Tom Hawkins, Director, Department of Natural Resources, July 14, 1987, along with Navigability Report of activity on the Kwethluk River, June 24, 1987, DNR/ PAAD files, Kwethluk River file.
- Attachment 38.** Laura Lagstrom, Memorandum on Field Trip [on September 15, 1997] for [Survey] Window 2029, Part I, December 4, 1997, p. 2, BLM files, FF-15824.
- Attachment 39.** Paul Allred, Ouzel Expeditions Incorporated, to Danny R. Allison of the Alaska Department of Natural Resources, May 18, 1994, DNR/ML&W/PAAD file on the Kwethluk River.
- Attachment 40.** Danny R. Allison of the Alaska Department of Natural Resources, to Paul Allred, Ouzel Expeditions Incorporated, to June 17, 1994, DNR/ML&W/PAAD file on the Kwethluk River.
- Attachment 41.** David Hulen, "Guide permits draw fire: Villagers don't want tourists on upper Kwethluk River," *Anchorage Daily News*, January 15, 1995, p. B-1.



# KWETHLUK RIVER

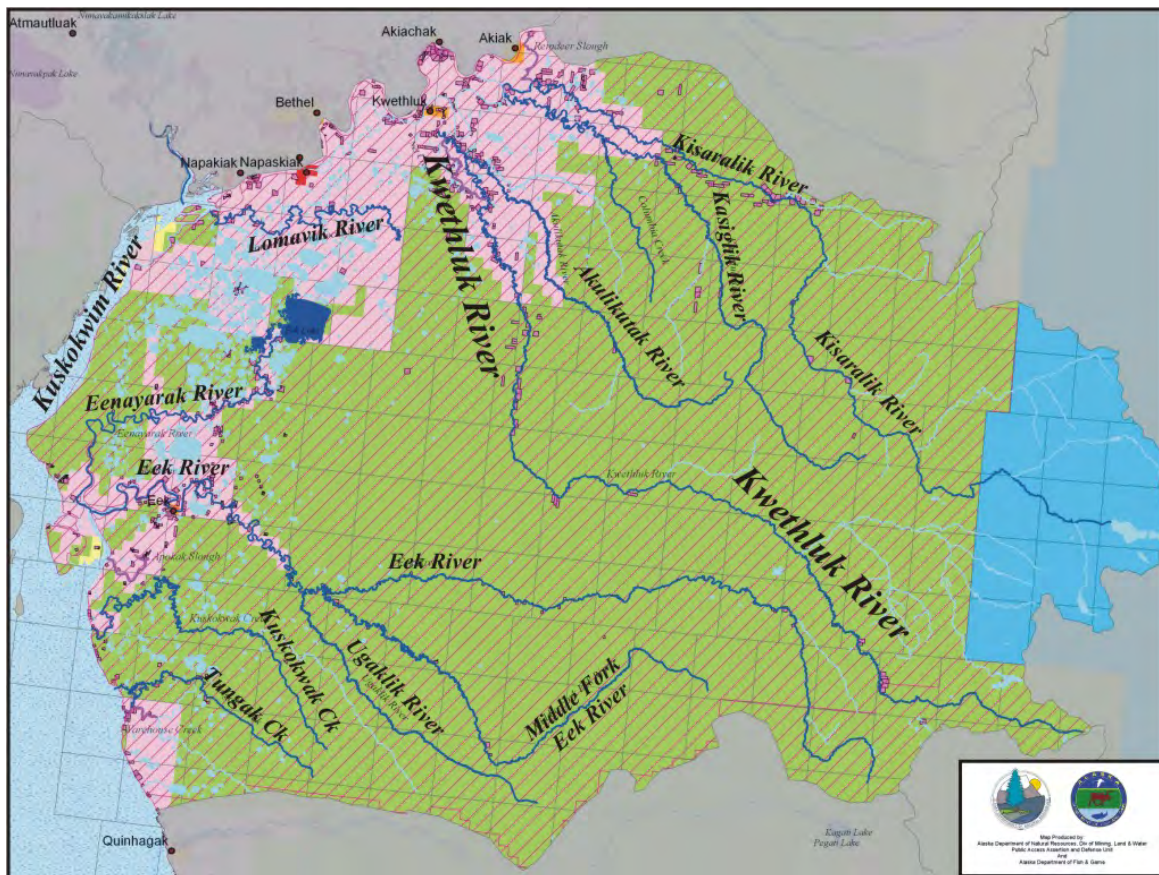
## HUC 30502, Zone 2, Kuskokwim River Region

### II-B Interim Summary Report

#### I. Introduction

The Kwethluk River System is located in the Yukon-Kuskokwim Delta Region, within Zone 2 of HUC 30502 (Figure 1). The Kwethluk River empties into the Kuskokwim via the Kuskokuak Slough near river mile 99 of the Kuskokwim River, 21 miles upstream from Bethel.<sup>i</sup>

The Kwethluk River originates at the outfall of several small, unnamed glaciers at the 2,000-2,500 foot elevation in the Kilbuck Mountains, 96 air miles southeast of Bethel. The Kwethluk River flows northwesterly for 85 miles to the Kuskokuak Slough. The confluence of the Kwethluk and the Kuskokuak Slough is located 10 miles east of Bethel.



**Figure 1. Map showing the location of the Kwethluk River within Zone 2 of HUC-30502 in the Kuskokwim River Region.**

<sup>i</sup> All air mile distances in this report are based on measurements from:  
<http://sdms.ak.blm.gov/isdms/imf.jsp?site=sdms>



The name Kwethluk River comes from an Eskimo name shown as “Kwiklimut,” meaning “Kwikli (river) people,” and “Kwikluk” on an 1898 field sheet by W.S. Post, of the U.S. Geological Survey (USGS), based on information obtained from J.H. Kilbuck, a Moravian missionary.<sup>1</sup> The present spelling was used in 1915 by A.G. Maddren of the USGS.<sup>2</sup>

The Kwethluk River is one of five water bodies that drain the Kilbuck Mountains and the south central portion of the Yukon Delta National Wildlife Refuge (hereafter referred to as the Yukon Delta NWR). The lower part of the Kwethluk River is located east of Bethel and south of the Native villages of Akiachak and Akiak. The Native village of Kwethluk is located on the lower Kwethluk River near its confluence with the Kuskokuak Slough. Bethel is the nearest regional hub. The only overland access to the Kwethluk River area is the Akiak-Crooked Creek Trail (RST-21), which starts at Akiak, runs south to the Kwethluk River to the confluence with Johnson Creek, then runs parallel to the Kwethluk River until the trail ends at the confluence of Kwethluk River and Crooked Creek in Township (T.) 2 North (N.), Range (R.) 63 West (W.), Seward Meridian (SM).

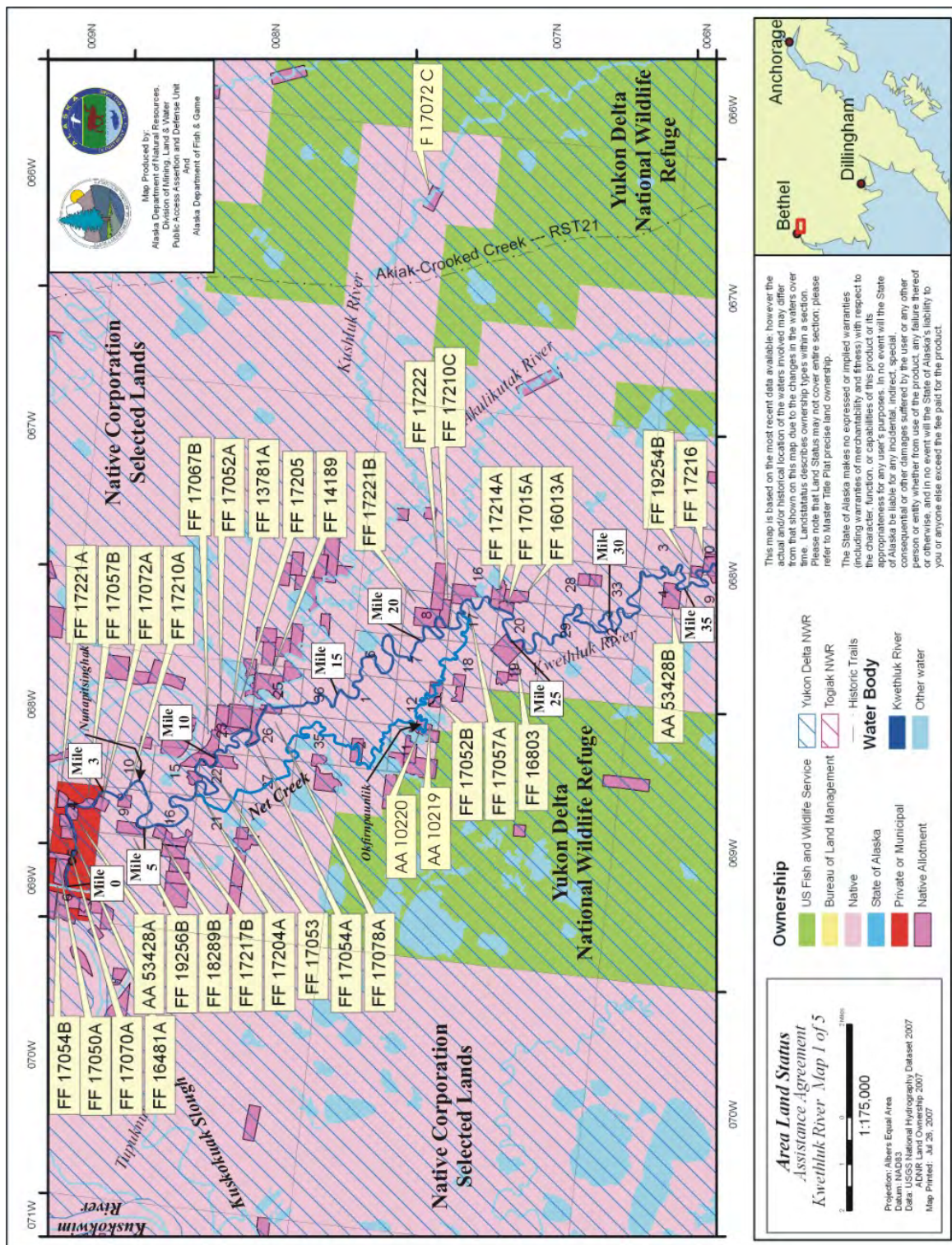
The Kwethluk River comprises twenty-four (24) townships:

TRM (Township, Range, Meridian):

T. 1 S., R. 59 W., SM	T. 1 N., R. 63 W., SM	T. 5 N., R. 67 W., SM
T. 2 S., R. 59 W., SM	T. 1 S., R. 63 W., SM	T. 3 N., R. 68 W., SM
T. 1 S., R. 60 W., SM	T. 2 N., R. 64 W., SM	T. 4 N., R. 68 W., SM
T. 2 S., R. 60 W., SM	T. 3 N., R. 64 W., SM	T. 5 N., R. 68 W., SM
T. 1 S., R. 61 W., SM	T. 3 N., R. 65 W., SM	T. 6 N., R. 68 W., SM
T. 1 N., R. 62 W., SM	T. 3 N., R. 66 W., SM	T. 7 N., R. 68 W., SM
T. 1 S., R. 62 W., SM	T. 2 N., R. 67 W., SM	T. 7 N., R. 69 W., SM
T. 2 N., R. 63 W., SM	T. 3 N., R. 67 W., SM	T. 8 N., R. 69 W., SM

## II. Land Status

The Kwethluk River is bounded by federal, Native village and regional corporation, and Native allotment lands (Figure 2-6). The upper portion of the Kwethluk River flows through the Togiak NWR, the middle portion flows through the Yukon Delta NWR, and the lower portions of the river are bounded by Native lands. There are numerous Native allotments on the federal and Native lands.





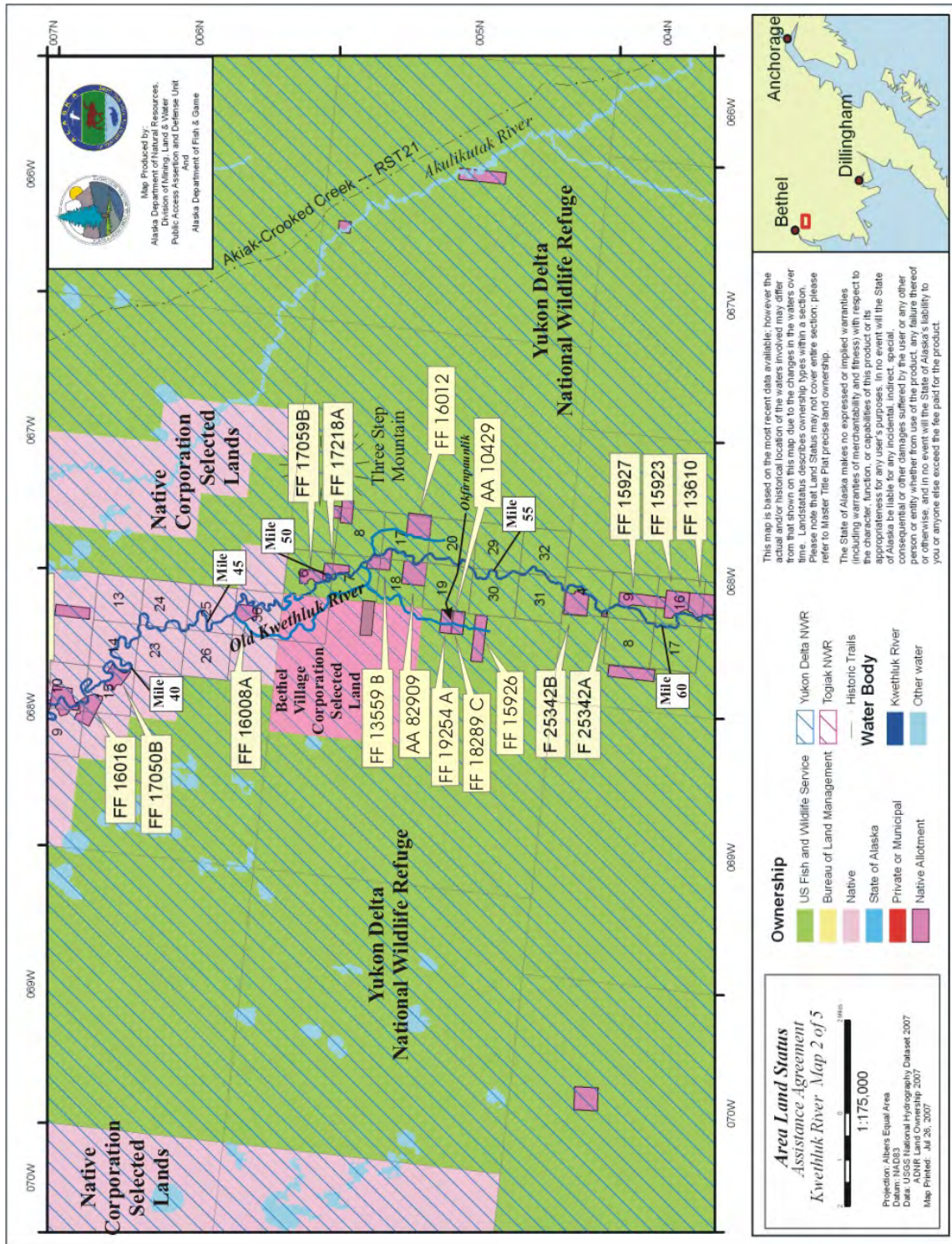


Figure 3. The lower-middle portion of the Kwethluk River showing lands selected by Native corporations and Native allotments.



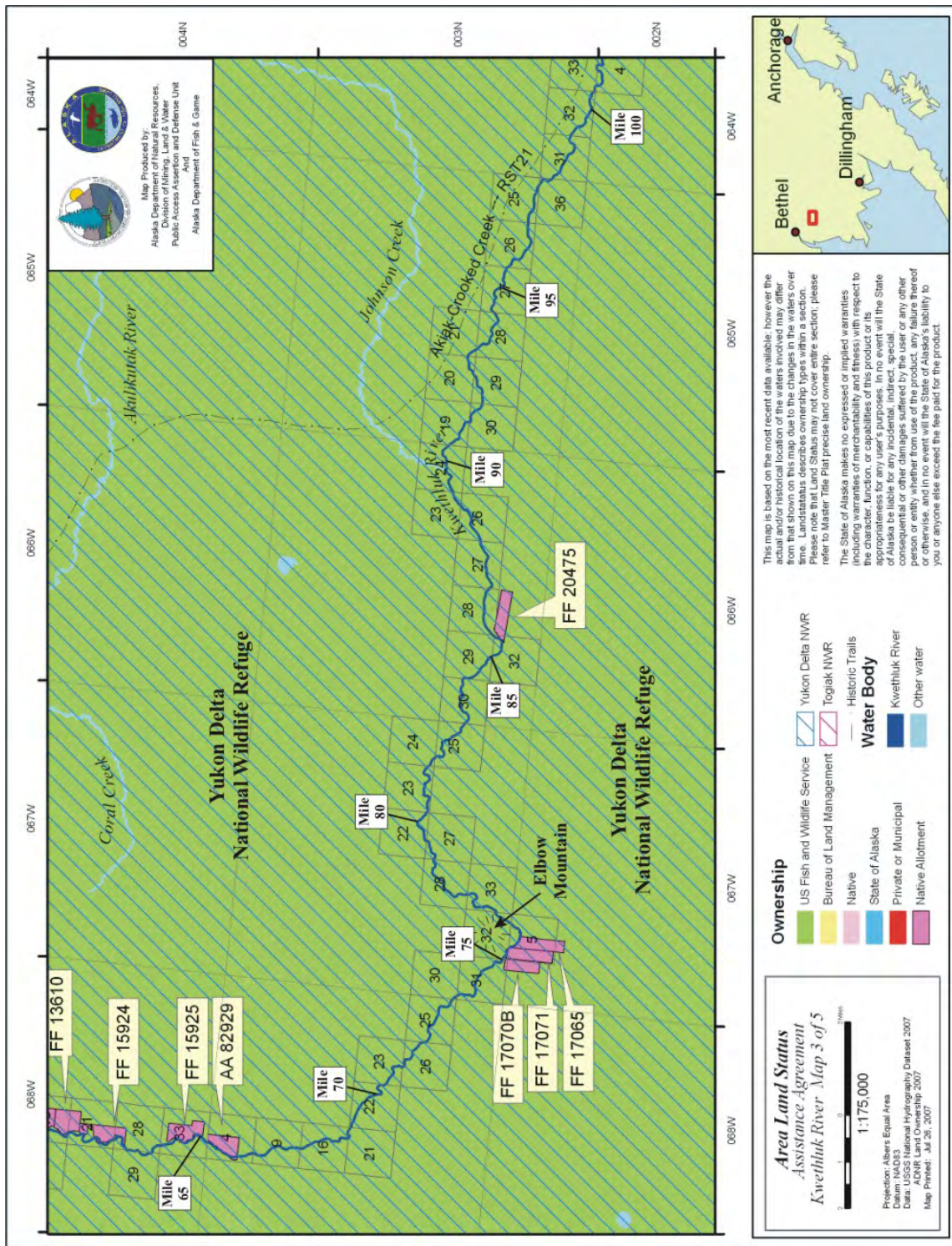


Figure 4. The middle portion of the Kwethluk River showing lands selected for Native allotments.



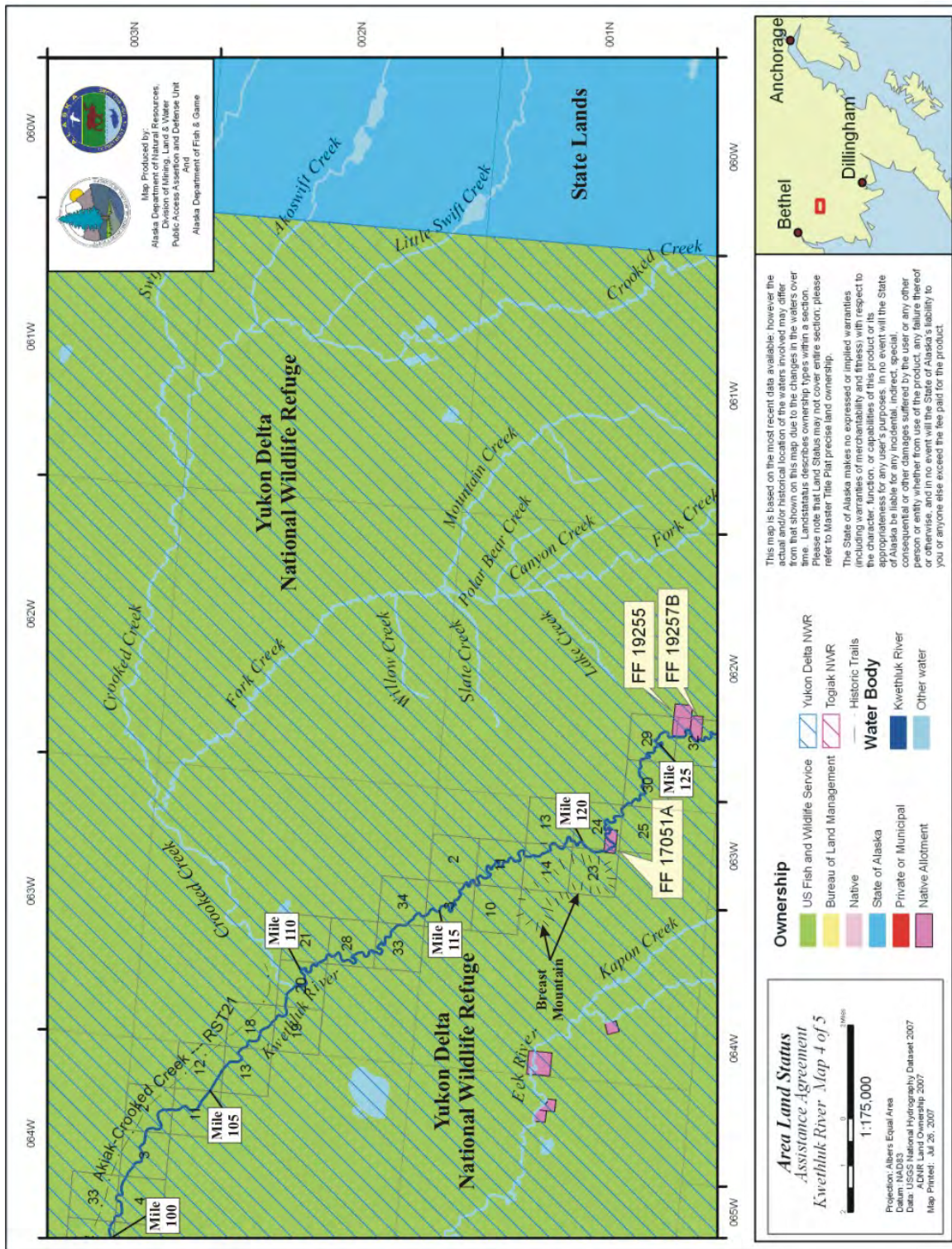
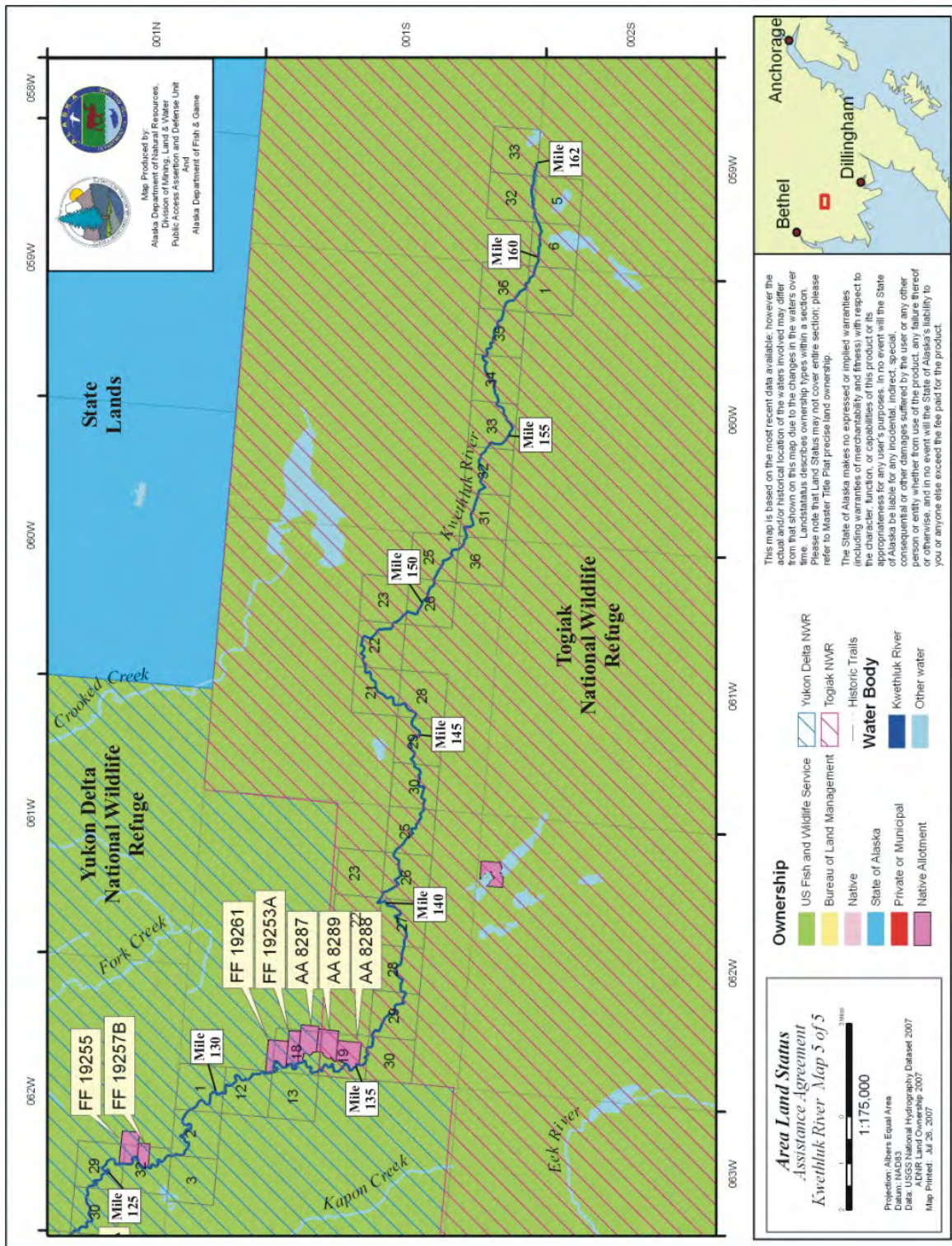


Figure 5. The middle-upper portion of the Kwethluk River showing lands selected by the State of Alaska and for Native allotments.





The lower portion of the Kwethluk River is located within lands that were selected by Native village and regional corporations under the Alaska Native Claims Settlement Act (ANCSA) of 1971 (Figures 2-3). Lands abutting the lower portion of the Kwethluk River were selected in the 1970s and conveyed to Kwethluk, Incorporated, the village corporation for Kwethluk, by Interim Conveyance (IC) No. 213 in 1979, IC No. 790 in 1984, and IC No. 1964 in 2006. The subsurface rights to these lands were conveyed to the Calista Regional Corporation in IC No. 214 in 1979, IC No. 791 in 1984, and IC No. 1965 in 2006. Lands selected by the Bethel Native Corporation in the middle-lower section of the Kwethluk River were conveyed by IC No. 2063 in 2007 and the subsurface rights were conveyed to Calista Corporation by IC No. 264 in 2007. None of these Native corporation lands have been patented.

A total of 54 Native allotments are located along the Kwethluk River. Thirty Native allotments exist along the lower portion of the Kwethluk River within the lands selected by Kwethluk, Inc. for the village of Kwethluk and the Calista Regional Corporation (Figure 2). All 30 of those allotments were certificated (13 in the 1980s, five in the 1990s, and 12 during 2006). Twenty-four Native allotments are located along the middle and upper middle portions of the Kwethluk River (Figures 3-6) within the Yukon Delta NWR. Twenty-three of these allotments have been certified (11 in the 1990s, 12 in the 2000s). One Native allotment application (AA-82929) within the Yukon Delta NWR area is still pending.

The middle portion of the Kwethluk River is located within the Yukon Delta NWR (Figures 2-6). The Yukon Delta NWR was withdrawn from unreserved public lands managed by the BLM in 1972 (Public Land Order 5184, March 9, 1972) and transferred to the federal refuge system under the Alaska National Interest Lands Conservation Act (ANILCA, PL 96-487) of 1980. Title to federal refuge lands in Alaska is held by the United States and the U.S. Fish and Wildlife Service (USF&WS) is the manager of the Yukon Delta NWR.

The upper-most portion of the Kwethluk River (Figure 6) is located within the Togiak NWR lands. The Secretary of the Interior withdrew 265,000 acres of land in 1969, south and west of the Kwethluk River and designated it the Cape Newenham National Wildlife Refuge (Public Land Order 4583). Two years later, the Secretary of Interior withdrew additional unreserved public lands that later became the Togiak Refuge under Section 17(d)(1) and 17(d)(2) of the Alaska Native Claims Settlement Act (ANCSA). The Secretary of the Interior established the Togiak NWR on February 11, 1980 (Public Land Order 5703). Congress enacted ANILCA on December 2, 1980, which, among other things, designated all of the withdrawn land in the upper-most Kwethluk River and Goodnews Bay areas, including the Cape Newenham National Wildlife Refuge, as the Togiak NWR. The Togiak Refuge encompasses about 4.7 million acres of land (4.1 million acres of federal land) between Kuskokwim Bay and Bristol Bay in southwestern Alaska. The northern half of the refuge (2.3 million acres) is a nationally designated wilderness area. Title to refuge lands is held by the United States and the Togiak NWR is managed by the USF&WS.



### III. BLM Navigability Determinations

After Congress passed ANCSA, Kwethluk, Inc. and Calista Regional Corporation selected ANCSA lands along the lower Kwethluk River. The BLM began actively seeking information on navigable waters on the Kwethluk River in the 1970s as part of its adjudication of Native land selections.

In an October 13, 1976, notice of proposed easements for Kwethluk village land selections, the BLM recommended a continuous streamside easement (2 L) on the streambed and both shores of the Kwethluk from “the point of tidal influence in Sec. 4, T. 8 N., R. 69 W., Seward Meridian [river mile 2.5] upstream to Sec. 1, T. 5 N., R. 68 W., Seward Meridian [river mile 47.5].” The agency considered the easement necessary because “the Kwethluk River has significant public use and provides access to public lands.”<sup>3</sup> (Attachment 1) According to the proposed easements notice, the Kuskokwim River and the Kuskokuak, Tupuknuk and Church sloughs were determined navigable, but no other water bodies in the selection area (including the Kwethluk River) were considered to be navigable.

The BLM issued a final easements memorandum for the Kwethluk Village Selection on October 11, 1978, incorporating the same proposed easement as the October 13, 1976 easement recommendation, but changed the justification to “purpose is to provide for public use of waters having highly significant present recreational use.”<sup>4</sup> (Attachment 2)

While a BLM Navigability Field Report, dated November 4, 1975, stated that the Kwethluk River had no tidal influence<sup>5</sup> (Attachment 3), later documents attested to a tidal influence upstream from the river’s mouth. The first BLM acknowledgement of tidal influence on the river occurred in the notice of proposed easements for Kwethluk village land selections, dated October 13, 1976. In that document, the BLM noted that “the point of tidal influence” on the Kwethluk River extended upstream (from river mile 0) into Sec. 4, T. 8 N., R. 69 W., SM (river mile 2.5).<sup>6</sup> (Attachment 1) On May 9, 1977, the Alaska Department of Fish and Game (ADF&G) reported to the BLM Easement Task Force that the tidal influence on the Kwethluk River reached Secs. 25-26, T. 8 N., R. 69 W., SM (river mile 12.5).<sup>7</sup> (Attachment 4)

On March 7, 1979, the BLM issued a Decision to Interim Convey (DIC) that identified lands to be conveyed to Kwethluk Village. The DIC determined the Kuskokwim River and the Kuskokuak, Tupuknuk and Church sloughs navigable in the selection area, and contained a 25-foot wide streamside easement “upland of and parallel to the ordinary high water mark on all banks and an easement on the entire bed of the Kwethluk River from the point of tidal influence in Sec. 4, T. 8 N., R. 69 W., Seward Meridian [river mile 2.5], upstream to Sec. 1, T. 5 N., R. 68 W., Seward Meridian [river mile 47.5].” The BLM explained that the purpose of the easement “is to provide for public use of waters having highly significant present recreational use.” The DIC also included a one-acre camping easement on the left bank of the Kwethluk River with a 25-foot wide easement on the bed of the river upland of the ordinary high water mark in Sec. 10, T. 6 N.,

R 68 W., SM (river mile 3.5). Even as the BLM granted these two easements, the DIC easement quad maps did not exclude the Kwethluk River as navigable where it crossed lands to be conveyed.<sup>8</sup> (Attachment 5)

The State of Alaska objected to the BLM's March 7, 1979 Decision and notified the Kwethluk Corporation in a letter dated March 23, 1979, of State's position that the BLM was "without power to convey title to lands under navigable waters."<sup>9</sup> (Attachment 6) A list showing the waters the State considered navigable was referenced in the letter, but could not be found in either the BLM's public files or in the State of Alaska's file on the Kwethluk River.

The BLM issued IC No. 213 to Kwethluk, Inc. and IC No. 214 to Calista on July 12, 1979. The navigability maps attached to the interim conveyances show the Kuskokuak Slough, which connects the Kwethluk to the Kuskokwim River, to be navigable. The maps also show the first three miles of the lower Kwethluk River starting at its mouth and extending upstream to be navigable through Secs. 4-6, T. 4 N., R. 69 W., SM, (river mile 3.0), likely because they were then considered part of the Kuskokuak Slough. In all other conveyed townships, the maps show the Kwethluk River to be non-navigable. The interim conveyance to Kwethluk, Inc. included the same 25-foot wide streamside easement along the uplands and easement along the entire bed of the Kwethluk River from Sec. 4, T. 8 N., R. 69 W., SM (river mile 3.0), to Sec. 1, T. 5 N., R. 68 W., SM (river mile 47.5), and the camp site easement in Sec. 10, T. 6 N., R. 68 W., SM, mentioned in the March 7, 1979 BLM DIC. The purpose of the EIN 2 L and EIN 14 C easements, according to the interim conveyance documents, "is to provide for public use of waters having highly significant present recreational use."<sup>10</sup> (Attachment 7)

IC No. 213 showed most of the Kwethluk River in the selection area as non-navigable while at the same time placing an easement along the streamside and the river bed to assure continued public access for recreational use. The BLM has not yet issued patents to the Native corporations on the lands in IC Nos. 213 and 214, but the interim conveyed lands have been surveyed. (Attachment 8) In the Master Title Plats (MTPs), the BLM meandered and segregated the Kwethluk River from the uplands in T. 8 N., R. 69 W., in T. 7 N, Rs. 68-69 W., and in T. 6 N., R. 68 W., SM. BLM surveyors meandered and segregated the Kwethluk River in these townships photogrammetrically, using aerial photos taken in 1980. The lands shown in MTPs for Tps. 5 N., Rs. 67-68 W., SM have not been surveyed yet. In the townships that have been surveyed, it appears that the BLM does not intend to convey title to the riverbed to the village corporation.

A Federal Court decision in *Calista et al. v. Andrus* (July 1977) ruled that 25-foot wide streamside easements upland of and parallel to the ordinary high water mark and along the bed of a river were void if for recreational use. On March 11, 1983, the BLM's Chief of ANCSA and State Conveyances informed Kwethluk, Inc. that some of the streamside easements along both banks and the bed of the Kwethluk River for Kwethluk land selections had been determined unlawful since the conclusion of the court case, and these easements would be removed from IC No. 213.<sup>11</sup> (Attachment 9)

The BLM issued a “Release of Interest” on December 2, 1983, which terminated the upland streamside and river bed easements (EIN 2 L and EIN 14 C) along the Kwethluk River from “the point of tidal influence” in Sec. 4, T. 8 N., R. 69 W. and extending upstream to Sec. 1, T. 5 N., R. 68 W., SM.<sup>12</sup> (Attachment 10)

On June 1, 1981, the State of Alaska filed a protest with the BLM on a number of Native allotment applications on the Kwethluk River and several of its tributaries where the allotments crossed the waterbody. Native allotments protested on the Kwethluk River included FF-17059-B at river mile 49.5 and FF-25342-B at river mile 58. The State also protested Native allotment FF-17059-A at the mouth of the Akutakutak River and two Native allotments, FF-15926 and FF-18289-C, on a tributary of Old Kwethluk River. The protest was based on the grounds that the lands described in the Native allotment applications were “the only access to publicly owned lands.” There is “no reasonable alternative for access because the Kwethluk River is the only water access into the country.”<sup>13</sup> In an unsigned, typewritten memorandum to the file dated stamped June 17, 1981, a BLM employee noted that the “Kwethluk River forms the only water access into the country.”<sup>14</sup> The State withdrew the objections to four of the Native allotment applications (FF-17059-A and B, FF-15926, FF-18289-C and FF-19254) on October 19, 1981, and the BLM formally dismissed the protests of those four Native allotments on November 27, 1981,<sup>15</sup> but continued to protest FF-25342-B at river mile 58.

On February 28, 1983, the BLM identified the Kwethluk River as navigable where a BIA school site abuts the river in Kwethluk townsite in T. 8 N., R. 69 W., SM (river mile 1.0). BLM staff based this decision on a prior determination [March 7, 1979] that had been “done in connection with work on the Kwethluk Village selections.”<sup>16</sup> (Attachment 11)

The BLM issued IC No. 790 to Kwethluk Inc. and IC No. 791 to Calista Corporation on January 31, 1984, in which the agency conveyed a 360-acre parcel of land located on Net Creek, a tributary of the Kwethluk River. The parcel is located in Secs. 21-22 and 27, T. 8 N., R. 69 W., SM. No waterbodies in these sections, including Net Creek, were excluded from conveyance for navigability.<sup>17</sup> (Attachment 12) No maps were attached to ICs No. 790 and No. 791. The BLM’s DIC dated March 7, 1979 and its attached maps (Attachment 5) covered the 360-acre parcel conveyed.

In May 1987, BLM staff sent a letter to the Kwethluk, Inc. answering questions about the ramifications of the Federal District Court’s decision in a case involving the navigability of the Gulkana River. Using the Kwethluk River as an example, BLM staff indicated that if the Gulkana decision passed the Circuit Court, the BLM would “re-examine all waterbodies... determined to be nonnavigable.”<sup>18</sup> (Attachment 13) In instances where waterbodies previously determined nonnavigable were determined navigable, the BLM would then compensate the Native corporation(s) for the loss of title to these submerged lands by conveying more uplands in the area of the same amount of acreage.

Several weeks later, a land planner from Kwethluk Incorporated replied to the BLM letter about the possible impacts of the U.S. District Court’s Gulkana River decision. In his

letter, Phillip Guy raised “the question of temporary navigability when smaller watercraft are used in various creeks and streams which occur especially during the spring break-up, during the summer & fall rainy seasons.” Guy noted that some creeks and streams become temporarily “navigable” as a result of high waters due to spring breakup and heavy rainy periods during the summer and fall seasons. He asked if the BLM will place these creeks and streams under the “meanderable” criterion?<sup>19</sup> (Attachment 14) This issue of seasonality, when water bodies are accessible for brief but predictable periods of time during specific seasons, was an important element for Kwethluk residents who used the upper Kwethluk River and its tributaries. There is no evidence that the BLM official replied to this inquiry, but the issue of seasonality as it relates to navigability criteria reappeared and entered into BLM navigability determinations in 1998 and later.

On August 12, 1988, the BLM Deputy Director for Conveyance Management issued a memorandum which identified navigable water bodies in Group Survey 253 less than 198 feet wide in relation to village, State and Native allotment selections. The memorandum used the “one-person kayak” standard for navigability. The survey area included the middle portion of the Kwethluk River in T. 3 N. R., 66 W.; T. 2 N. and 3 N., R. 67 W.; and T. 3 N. and T. 4 N., R. 68 W., SM, where 12 Native allotments were located. No portions of the Kwethluk River in this area (from river mile 57.0 to river mile 90.5) that abutted or flowed through Native allotments were listed as navigable.<sup>20</sup> (Attachment 15)

The BLM also issued a memorandum identifying navigable waters in Group Survey No. 268 (Window 1836) on May 5, 1988, which included a portion of the north Kwethluk village selection area. This memorandum also used the “one-person kayak” standard for navigability. Survey Window 1836 was north of the village of Kwethluk and did not include the Kwethluk River or its tributaries.<sup>21</sup> (Attachment 16)

In 1991, BLM cadastral surveyors requested a navigability report for the Kwethluk River in T. 4 N., R. 68 W., SM, where a number of Native allotments abut the river. The BLM’s Conveyance Management Director issued a memorandum on November 6, 1991, identifying navigable waters within Native allotments along the Kwethluk River. The purpose of the 1991 memorandum “supplements our memorandum of August 12, 1988, identifying navigable waters in Group Survey 253 (Window 1837).” Based on historic information, interviews with local residents and eyewitness accounts from BLM surveyors in the field, the 1991 memorandum determined the Kwethluk River “navigable through T. 7 N., R. 69 W., and upstream to T. 3 N., R. 66 W., SM,” that is from river mile 15.5 to river mile 83.5. The 1991 memorandum also stated that four experienced individuals had indicated that the river was “suitable for canoes and small jet boats” even farther upstream.<sup>22</sup> (Attachment 17) This determination included the entire river within these specific townships, thereby reversing the non-navigability determinations in the specific townships on Native allotments in the 1988 memorandum and the 1979 DIC and IC No. 213 and IC No. 214.

A Department of Natural Resources employee told a BLM official in January 1995 that the State objected to Native Allotment FF-25342 Parcel B because the survey showed

two parcels on either side of the river. The State's concern, the BLM official noted in the memorandum, "is if the allotment crosses the river, the allottee could block passage down the river. They [State officials] want to be sure BLM does not give ownership of the bed of the river to the allottee."<sup>23</sup> In April 1995, the BLM dismissed the State's access protest against Native Allotment Application for FF-025342 on the grounds that the allotment does not block the Kwethluk River based on Sec. 17(b) easements and the case file.<sup>24</sup>

In December 1995, the BLM issued a document summarizing the status of navigability determinations for the Kwethluk River. The agency considered the Kwethluk River non-navigable in 1979 in T. 8 N., R. 69 W., T. 7 N., R. 69 W., T. 7 N., R. 68 W., and T. 6 N., R. 68 W, SM (river mile 3.0 to river mile 47.5), and the riverbed in those townships was not excluded from IC No. 213 and IC No. 214. Later, BLM's cadastral surveyors reported that the river in the vicinity of Kwethluk Village was not tidal, but another BLM employee pointed out that much of the lower reach in T. 8 N., R. 69 W., SM was three chains or more in width. Accordingly, the agency decided to meander and segregate the submerged lands from the uplands in the lower portions of the river on the survey plats. "The remainder of the river in this township and in T. 7 N., R. 69 W., SM," the BLM navigability report concluded in 1995, "is less than three chains in width, and thus will not be segregated on the survey plats." In 1991, the BLM reconsidered the navigability of the Kwethluk River above the village selected and interim-conveyed area. At that time, the BLM's Division of Cadastral Survey was preparing survey instructions for Native allotment parcels located on and along the river upstream from the interim-conveyed area, and needed to know whether or not to exclude the river from the surveys of the Native allotment boundaries. "Analyzing the new information in light of the Federal court's decisions in the Gulkana River case," the BLM concluded in December 1995 that "the Kwethluk River is navigable from T. 5 N., R. 68 W. [river mile 47.5] to and through T. 3 N., R. 66 W., SM [river mile 90.5]. The river flows through seven townships in this reach."<sup>25</sup> (Attachment 18) This 1995 document differed from the 1991 memorandum, which indicated that the river was navigable in and through T. 7 N., R. 69 W. and R. 68 W., and T. 6 N., R. 68 W., SM, from river mile 15.5 to river mile 47.5.

In a series of three navigability reports dated January 8, 1998, the BLM concluded that two left-bank and one right bank tributaries of the Kwethluk River in the Yukon Delta NWR were non-navigable within a number of Native allotments. The mouth of one of the left-bank tributaries, Old Kwethluk River (an anabranch of the Kwethluk River), is located at river mile 46.0 in Sec. 36, T. 6 N., R. 68 W., SM. One local Native accessed the area in a 16-foot Lund boat with a 25-horse propeller motor during high water caused by heavy rains in August, but the stream was determined non-navigable by the BLM because it was too shallow and full of beaver dams to be used during other times during the open season.<sup>26</sup> (Attachment 19) The other left-bank tributary flows into the left side of Net Creek in Sec. 12, T. 7 N., R. 69 W., SM. The BLM determined this unnamed tributary non-navigable within Native allotments F-17052-B and F-17210-B because local residents boated this tributary "only during periods of high water which last between a week to a month."<sup>27</sup> (Attachment 20)

The mouth of the right-bank tributary is located at river mile 51.0 in Sec. 8, T. 5 N., R. 67 W., SM. Although one person interviewed felt it was boatable three to four weeks in the spring and three to four weeks in the fall, the BLM determined this right-bank tributary non-navigable in Native Allotment F-16012 because the stream was narrow and the allottee and her parents had walked to the site from the Kwethluk River.<sup>28</sup> (Attachment 21)

On January 8, 1998, a fourth BLM navigability report concluded that the anabranch of the Kwethluk River known as Net Creek (also *Kuviak'ya'chal'vick*) was navigable through Native Allotment F-17052-B in Sec. 12, T. 7 N., R. 69 W., SM.<sup>29</sup> (Attachment 22) The BLM reiterated in a memorandum on January 13, 1998, that Net Creek was navigable. Maps showing navigable water bodies within Native allotments, including Net Creek, were attached to the memorandum.<sup>30</sup> (Attachment 23)

In a letter dated June 3, 1998, the State of Alaska's Director of the Division of Lands, Jane Angvik, took issue with the BLM's failure to consider navigability on Native allotments within lands associated within IC No. 213 and the four other interim conveyances. "The BLM is required to review navigability based on the current applicable standards," Angvik argued. At a minimum, waters adjacent to or crossing selected allotments within Survey Window 2029 should be evaluated consistent with the Department of Interior's policy summarized in the March 16, 1976 Solicitor's memorandum by Hugh C. Garner as well as the Ninth Circuit Court decision in *Alaska v. Ahtna* (1989). "The allotments that have been selected in this area," Angvik wrote, "remain in federal ownership until conveyed to the individual allottee. They do not constitute previously conveyed lands." The Kwethluk, Akulikutak and Kushluk rivers, as well as Kuskokuak Slough, are "obviously navigable waters within this survey window." The Kwethluk River, along with the Kuskokwim and Kasigluk rivers, "are the most heavily used [rivers in the Yukon Delta] for commercial purposes, subsistence, and recreation" and the "Kwethluk, Kisaralik and Andreafsky rivers are the primary rivers used by non-local sport anglers." Both locals and non-locals use all these rivers, Angvik concluded,

for a variety of activities which clearly demonstrates their susceptibility to use as a highway of commerce. Travel on these waterways is vital to the survival of the communities. All the waterways noted for this survey window meet the minimum BLM standards for navigability and should therefore, be meandered from the survey.<sup>31</sup> (Attachment 24)

Angvik attached a list of the Native allotment applications in the survey window to her letter. The list included ten Native allotment applications on the Kwethluk River, six applications on tributaries of the Kwethluk River, one application on the Kushluk River, and two applications on the Akulikutak River.

The BLM issued another Navigability Report on June 17, 1998, that considered the navigability of submerged lands adjacent to or straddling Native allotments on the upper

Kwethluk River in the Yukon Delta NWR and the Togiak NWR. In this decision, the agency stated that its criterion for navigability on ANSCA lands was based on the March 16, 1976 Hugh Garner memorandum, which the memorandum summarized as follows:

In general, BLM considers nontidal water bodies navigable if, at the time of statehood, they were suitable for travel, trade and commerce. Additionally, in a December 13, 1989 Ninth Circuit Court decision, the court found that watercraft customary at statehood included boats with a load capacity of about 1,000 pounds. The court further held that the contemporary guided fishing and sightseeing activity on the Gulkana river was commerce and that watercraft customary at Statehood ‘could have at least supported’ this commercial activity.<sup>32</sup> (Attachment 25)

The BLM determined that the Kwethluk River was non-navigable in one Native allotment (FF-17051-A) in T. 1 N., R. 63 W. (river mile 120.5), in two Native allotments (FF-19255 and FF-19257-B) in T. 1 N., R. 62 W. (river mile 125.5 and river mile 126), and in three Native allotments (FF-19261, FF-19253-A, and AA-8288) in T. 1 S., R. 63 W., SM (river miles 132 and 134.5). In reaching this decision, the agency noted that local Natives had used skin boats to descend the river through this area prior to 1931, but the river contained obstacles such as sweepers, boulders, gravel bars and logs and it was too shallow, except in brief periods of high water in the spring and fall, for outboard boats carrying 1,000 pounds to travel that far up stream to the allotments. “The evidence presented,” the report concluded, “doesn’t support its use or susceptibility for use as a route for travel, trade and commerce.”<sup>33</sup>

In November 2006, the BLM reviewed the field report and color infra-red aerial photographs of the Kwethluk River from 1982 for a Native allotment application (AA-82909) located at river mile 53.0 of the Kwethluk River. The field inspection report noted that the applicant “accesses the parcel by a large skiff [from Bethel] and follows the Kuskokwim River, then to the Kwethluk River during summer and fall.”<sup>34</sup> The agency did not address evidence of historic and recent use and concluded that “It has been determined that no significant water bodies are present that would warrant additional investigation in regards to them being navigable.”<sup>35</sup> (Attachment 26)

On April 6, 2006, the BLM issued Corrected IC No. 1964 to Kwethluk, Inc. and IC No. 1965 to Calista Corporation. These documents corrected earlier interim conveyances by excluding surveyed Native allotments. No additional lands were conveyed and no navigability maps were attached to the conveyances.<sup>36</sup> (Attachment 27)

The Bethel Native Corporation selected lands on the Kwethluk River on April 4, 2004 to supplement its selections under Sections 12(a) and 12(b) of ANSCA. The lands selected were in T. 5 N., R. 68 W., SM, south of and adjacent to lands selected along the river by Kwethluk, Inc.<sup>37</sup> On October 26, 2005, the BLM issued a notice of proposed easements and a request for easement nominations for these lands selected along the Kwethluk River and for lands selected at the same time near the Tuluksak River, but no final



easement memorandum could be found for the lands selected by the Bethel Native Corporation along the Kwethluk River. No navigability determination was located that applied to the Bethel Native Corporation's selection of the 360-acre parcel along the Kwethluk River. The BLM issued a DIC on the lands selected by the Bethel Native Corporation on December 15, 2006, including 9 sections in T. 5 N., R. 68 W., SM. The DIC stated that submerged lands would be excluded from the acreage charged, and the "submerged lands will be identified at the time of survey." Maps were included as enclosures to the DIC, but were not found in the file.<sup>38</sup> (Attachment 28)

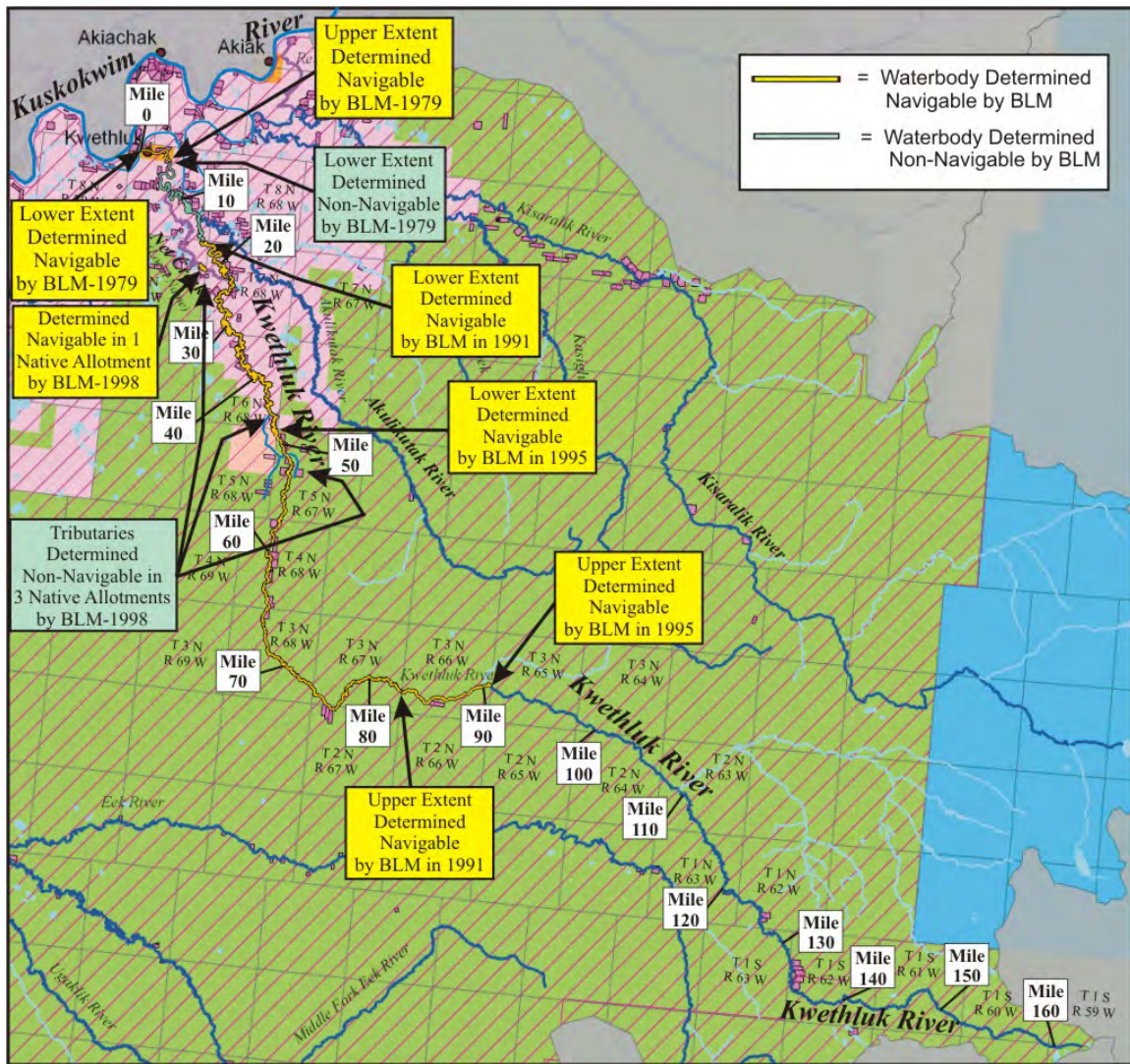
The BLM issued IC No. 2063 to Bethel Native Corporation and IC No. 2064 to Calista Corporation on January 30, 2007, conveying lands along both sides of the Kwethluk River in Sec. 1 and the west side of Secs. 2-3 (river mile 47.5 to river mile 50) and Secs. 10-15, T. 5 N., R. 68 W., SM, just upstream of lands conveyed to Kwethluk Inc.<sup>39</sup> Maps depicting the lands included in the interim conveyances were not found in the file. (Attachment 29)

On March 16, 2007, the BLM issued another memorandum summarizing navigable waters identified in 66 townships for Survey Group Nos. 140, 268 and 284. In the summary, the agency indicated there were no navigable waters in T. 6 N., R. 68 W. and no navigable waters except the Kuskokwim River and Kuskokuak Slough in T. 8 N., R. 69 W., SM. The March 16, 2007 summary cited the DIC of March 7, 1979 for these determinations of navigability and non-navigability.<sup>40</sup> (Attachment 30) The summary made no mention of navigability determinations for portions of the Kwethluk River made in the Navigability Determination of February 28, 1983 identifying the river navigable abutting the BIA school site in Kwethluk, or the November 9, 1991 BLM memorandum identifying the Kwethluk River navigable in T. 6 N., R. 68 W., SM.

Summary of Navigability Determinations: Navigability determinations for the Kwethluk River are summarized in Table 1 and shown in Figure 7. The BLM determined the first three miles (from the mouth at river mile 0 to river mile 3.0) navigable in 1979 due to tidal influence or because that portion of the river was thought to be part of the Kuskokuak Slough. The agency determined the Kwethluk River non-navigable in 1979 from river mile 3.0 to river mile 47.5 without citing any navigability criteria and without consideration of historic use. The BLM reconsidered navigability of the river in 1991, taking into account historic use, recent use by BLM employees and local Natives using boats with capacity to carry 1,000 pounds or more. The agency's 1991 document determined the Kwethluk River navigable in nine townships, from river mile 15.5 to river mile 83.5. Four years later, the BLM reiterated that the Kwethluk River was navigable through T. 5 N., R. 68 W. and upstream through T. 3 N., R. 66 W., SM, from river mile 47.5 to river mile 90.5.

**Table 1: Kwethluk River Navigability Determinations**

<b>Dates</b>	<b>River Section</b>	<b>Type Decision and Substance</b>	<b>Navigability Criteria</b>
3/7/1979 Attachment 5	lower	Decision to Interim Convey (DIC): Kwethluk determined tidal from mouth river mile 0 to river mile 3.0; determined the Kwethluk non-navigable from river mile 3.0 to river mile 47.5. Upland streamside and river bed easements were granted from river mile 3.0 to river mile 47.5.	(Not addressed)
7/12/1979 Attachment 7	lower	IC No. 213 and IC No. 214: Same as the 3/7/1979 DIC.	(Not addressed)
12/2/1983 Attachment 10	lower	Release of Interest: upland streamside and riverbed easements terminated, river miles 3.0-47.5.	(Not addressed)
2/28/1983 Attachment 11	lower	Navigability Determination: Kwethluk River determined navigable where a BIA school site abuts the river in Kwethluk townsite at river mile 1.0.	(Not addressed)
1/31/1984 Attachment 12	lower	ICs No. 790 and No. 791: 360-acre parcel conveyed to Native corporations on lower portion of Net Creek; lower Net Creek determined non-navigable.	(Not addressed)
8/12/1988 Attachment 15	middle	Memo on Navigable Waters in Group Survey 253: Kwethluk River determined non-navigable within 12 Native allotments, river miles 57.0-90.5.	One-person kayak
11/9/1991 Attachment 17	middle	Memo Identifying Navigable Waters in Group Survey 253 (Window 1837): Kwethluk River determined navigable within Native allotments “through T. 7 N., R. 69 W.,” (river mile 15.5) and up-stream to T. 3 N., R. 66 W., SM” (river mile 83.5).	Boat with capacity of 1,000 pounds
12/13/1995 Attachment 18	middle	Navigability Status Report: Kwethluk River determined navigable through T. 5 N., R. 68 W., SM (river mile 47.5) and upstream through T. 3 N., R. 66 W., SM (river mile 90.5).	Boat with capacity of 1,000 pounds
1/8/1998 Attachments 19-22	middle	Navigability Reports: Kwethluk River determined non-navigable in Native allotments on two left-bank and one right-bank tributaries and navigable on Net Creek, within Yukon Delta NWR.	Boat with capacity of 1,000 pounds or more.
1/12/1998 Attachment 23	lower	Navigability Report: Net Creek determined navigable in one Native allotment Sec. 12, T. 7 N., R. 69 W., SM within the Yukon Delta NWR.	Boat with capacity of 1,000 pounds or more.
6/17/1998 Attachment 25	upper	Navigability Report: Kwethluk River determined non-navigable in three Native allotments in T. 1 N., Rs. 62-63 W., (river miles 120 & 125) and three Native allotments in T. 1 S., R. 63 W., SM (river miles 132 and 134.5)	Boat with capacity of 1,000 pounds
12/15/2006 Attachment 28	middle	DIC: Lands to be conveyed along Kwethluk River from river miles 47.5-50, but “submerged lands will be identified at the time of survey.”	(Not addressed)
1/30/2007 Attachment 29	lower	IC Nos. 2063 and 2064: Lands interim conveyed along Kwethluk River from river miles 47.5 to river mile 50. Maps not found in file.	(Not addressed)
3/16/2007 Attachment 30	lower	Summary states no navigable water bodies in T. 6 N., R. 68 W., and T. 8 N., R. 69 W., SM except Kuskokwim River & Kuskokuak Slough.	1976 Garner & 1980 Allen memos



**Figure 7. Map showing BLM determinations of navigability and non-navigability on the Kwethluk River.**

A 2007 BLM summary of navigability determinations for areas along the river relied on the 1979 DIC and concluded that there were no navigable waterbodies in T. 6 N., R. 68 W., and T. 8 N., R. 69 W., SM, except the Kuskokwim River and Kuskokuak Slough. No navigability determinations have been made on the 72 miles of the river from T. 3 N., R. 66 W., SM (river mile 90.5) to the river's source (river mile 162.0). The BLM determined the lower portion of Net Creek, an anabranch of the Kwethluk River, non-navigable in IC No. 790 and IC No. 791, but determined an upper portion of Net Creek navigable in 1998 within Native Allotment F-17052-B. Several smaller tributaries of the Kwethluk River were determined non-navigable in 1998 where they flow through Native allotments.

BLM employees did not review historical information from the 1985 Kuskokwim Regional Report when considering the navigability of the Kwethluk River, except in the 1991 memorandum, the 1995 report and the 1998 navigability reports and memorandum. While the lower reaches of the Kwethluk River were not excluded from ICs No. 213, No. 214, No. 790, No. 792, No. 2063 and No. 2064, BLM surveyors meandered and segregated the river from uplands in the townships extending from the river's mouth (river mile 0.0) through T. 6 N., R. 68 W., SM (river mile 47.5). These surveys were conducted following instructions from the 1991 navigability memorandum. The BLM has not yet issued patents to the village corporations for lands selected in this area.

Although the BLM has issued a number of navigability studies addressing uplands along the Kwethluk River, none of these studies have specifically stated whether commerce was present on the river or whether the river was susceptible to commerce prior to statehood in 1959. Even though there are descriptions of mining and survey activity along the Kwethluk River in the 1985 Kuskokwim Regional Report, the BLM has not addressed the issue of navigability due to travel, trade and commerce on this river. It has also not considered evidence of use by local Natives occurring during brief periods of time during spring, summer or fall when high water allows access by boats.

#### **IV. Physical Character of the Waterway**

The Kwethluk River is 162 miles long<sup>ii</sup> and drains an area of about 1,300 square miles. The river heads in the Kilbuck Mountains at the Bristol Bay divide and flows northwest into the Kuskokwim River by way of the Kuskokuak Slough near Kwethluk village. Much of the Kwethluk River is depicted in photos and topographic maps as a narrow, gently meandering, clear, moderate-gradient water body, containing sand bars and isolated areas of shallow depths. The river has four major tributaries. The headwaters of the river are located in Sec. 33, T. 1 S., R. 59 W., SM. The Kwethluk River flows in a generally west-northwest direction and ends at the Kuskokuak Slough of the Kuskokwim River in Sec. 6, T. 8 N., R. 69 W., SM. The Kwethluk River varies in width, ranging from 10 feet in its upper-most reaches to 200 feet wide at its mouth near the village of Kwethluk. The river's depth varies from 10 inches in its upper reaches to 15 feet at its mouth, depending on the location measured and the season. The Kwethluk has an average gradient of 13 feet per mile. It is a meandering river over most of its course, which lies within the Kuskokwim Flats. The upper reaches of the river consists of rapids.<sup>41</sup>

Most of the watershed, except the upper 26 miles, is tundra. A narrow band of willow, spruce, cottonwood and birch is found along the river. From river mile 86 to river mile 50, the braided active channels have large trees along the banks. The dominate shore vegetation from river mile 50 to river mile 29 is spruce, willow, birch and cottonwood.

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<sup>ii</sup> Different sources estimate the length of the river at 100 to 162 miles. The length the Kwethluk River and the river miles used in this report are based on GIS calculations using the National Hydrography Data Set derived from USGS quadrangle maps.

Shore vegetation from river mile 29 to river mile 0 consists mainly of willow, but some birch and spruce are present farther up this section.<sup>42</sup>

The Kwethluk River has three major tributaries and two major anabranches. Crooked Creek (previously known as Canyon Creek) is a right-bank tributary in the upper reaches of the drainage. Johnson Creek is a major tributary in the middle reaches. The Kushluk River is a 25-mile long right-bank tributary in the lower portion of the Kwethluk River. The Kushluk drains an area of about 290 square miles. Its mouth, which is about 120 feet wide, is in Sec. 25, T. 8 N., R. 69 W., SM. Kwethluk residents call the Kushluk River the *Ill'ling'uth'tu'lik* River or the North Fork of the Kwethluk. The Kushluk River is about 120 feet wide at its mouth.<sup>43</sup> The Kushluk River is fed by a 40-mile long left-bank tributary called the Akulikutak River. The Akulikutak is a meandering stream that drains about 200 square miles.<sup>44</sup> Its mouth, which is about 20-25 feet wide, is located in Sec. 32, T. 8 N., R. 68 W., SM. The banks are heavily vegetated with grass, brush and willows. The Akulikutak River has very little gradient as it flows through an area that is very flat and composed of tundra with a myriad of scattered lakes.<sup>45</sup>

The Old Kwethluk River is a 6-mile long anabranch located in the middle-lower portion of the Kwethluk River. The Old Kwethluk River leaves and re-enters the left-bank of the Kwethluk River and its mouth is located in Sec. 36, T. 6 N., R. 68 W., SM.<sup>46</sup> Net Creek, another anabranch of the Kwethluk River, is about 13 miles long and is located in the lower reaches of the Kwethluk River. It diverges from the Kwethluk River in Sec. 17, T. 7 N., R. 68 W., and its mouth is located in Sec. 15, T. 8 N., R. 69 W., SM. Net Creek is about 20-25 feet wide with well-defined banks lined with willows and brush. The stream is made up of wide and long straight stretches for several miles before it becomes more sinuous and narrow. The stream flows through an area of tundra with hundreds of lakes, some of which feed into the stream. The creek is muddy in color and is placid. A Native allotment (F-17052-B) straddles the creek in Sec. 12, T. 7 N., R. 69 W., SM.<sup>47</sup>

Several minor tributaries of the Kwethluk River join the river in the middle section just upstream of the village selection area. Two are left bank tributaries and one is a right bank tributary of the Kwethluk River. These waterbodies range from 10 feet to 20 feet wide at their confluence with the Kwethluk, but are narrow and shallow upstream.<sup>48</sup>

The upper portion of the Kwethluk River (Figures 4-6) is 72 miles in length and extends from the headwaters at river mile 162 to river mile 90, just below the confluence with Johnson Creek. The river heads in mountains at an elevation of 2,000 feet. The stream channel in this portion of the river is a single, well-defined, boulder-strewn channel. It is snow fed and clear for the first 60 miles below the headwaters. No information is available about the width and depth in the upper-most 26 miles of the river. The river flows west out of glacially formed mountains at river mile 140 onto a three-mile wide tundra valley that extends northwest through foothills (Figure 8). The river leaves the Togiak NWR at river mile 134 and enters the Yukon Delta NWR. It passes through a mile-wide cut in the surrounding foothills at Mile 120, just east of Breast Mountain (Figure 9).





**Figure 8.** The Kwethluk River emerging from the Kilbuck Mountains. ADF&G photo from <http://www.sf.adfg.state.ak.us/Management/Areas.dfm/FA/kuskokwimFloat.kwethluk>.



**Figure 9.** The Kwethluk River at river mile 132.5 in the vicinity of Native Allotment F-19253-A, July 30, 1974. The view is looking upstream to the southeast. Photo by Wayne R. Dawson, BLM files, F-19253.

Major tributaries in this part of the Kwethluk River include Crooked Creek (also known as Canyon Creek), which joins the Kwethluk at river mile 110, and Johnson Creek, which joins the Kwethluk at river mile 90. At river mile 121 (Anna Z. Andrew's Native Allotment, FF-17051-A), the river is 50-66 feet wide. An increase in gravel bars constricts the channel to 20 plus feet through Sec. 18, T. 1 S., R. 62 W., SM (river mile 134).<sup>49</sup> (Attachment 31)

From river mile 126 to river mile 90, the river varies in width from 66-132 feet.<sup>50</sup> (Attachment 17) A Native who has boated the upper portion of the river reported that the Kwethluk River is about 100 feet wide from bank to bank from above Elbow Mountain (river mile 75) to Breast Mountain (river mile 120). He did not recall too many boulders in the river.<sup>51</sup> (Attachment 31) Channeling begins to form in this section of the river along with increasing vegetation along the banks. The river descends an average of 20 feet per mile in this area.<sup>52</sup> (Attachment 17) Above the confluence with Crooked Creek (river mile 110), the main channel of the Kwethluk River, based on BLM photo interpretation, ranges from 66 to 100 feet wide with occasional gravel bars and islands.<sup>53</sup> (Attachment 31)

According to another Native who has traveled on the river, the upper portion of the Kwethluk River in the spring is between 6 inches and 2 feet deep in the vicinity of the spring camps at river mile 135, where his mother's and other allotments are located.<sup>54</sup> (Attachment 31) A second Native who has traveled up the river by boat estimated the Kwethluk is 8-15 feet deep between Elbow Mountain (river mile 75) and Breast Mountain (river mile 120) in the spring and fall during brief periods of high water, and 6 inches to 1.5 feet deep in June and July.<sup>55</sup> (Attachment 25) A third Native familiar with the area above Breast Mountain estimated the depth of the river varies from 1.5 feet to 2 feet during the latter part of June to mid-July. He stated that some people are able to get up there with jet units.<sup>56</sup> (Attachment 31)

The upper-middle portion of the Kwethluk River is 38 miles in length and extends from river mile 90 to river mile 51 (Figures 3-4). The streambed is braided from river mile 86 to river mile 51 (Figure 10), and gravels are the predominant stream bed materials. The water in late summer is clear to light green. The width of the stream is 100 feet, with an average depth of 1.9 feet and a velocity of 6.25 feet per second. The bottom composition is 10% sand and silt, 20% fine gravel, 50% medium gravel, and 20% coarse gravel.<sup>57</sup> According to one Native who has boated up the river, the river in the vicinity of Elbow Mountain can vary in depth after a fall rain from 1.5 to 12 feet. The 12-foot depths are around deep holes.<sup>58</sup> (Attachment 31) The river in the vicinity of the six Native allotments in T. 4 N., R. 68 W., SM (river mile 65 to river mile 58) is approximately 66 to 100 feet wide, 1 to 3 feet in depth, with a band of spruce and birch mix along the banks (Figure 11). The field examiner's photographs of a Native allotment in Secs. 32 and 33, T. 3 N., R. 66 W., SM (river mile 83.5) show a clear river approximately 66-100 feet wide, 1 to 2 feet deep with a narrow band of vegetation bordering the banks. The river flows through three Native allotments at the foot of Elbow Mountain near Sec. 32, T. 2 N., R. 67 W., SM (river mile 77).<sup>59</sup> (Attachment 17) About six miles above Three Step



Mountain (river mile 50), several oxbow lakes continuously erode and dump mud and silt into the river. Upstream, the river is clear.<sup>60</sup> (Attachment 31)

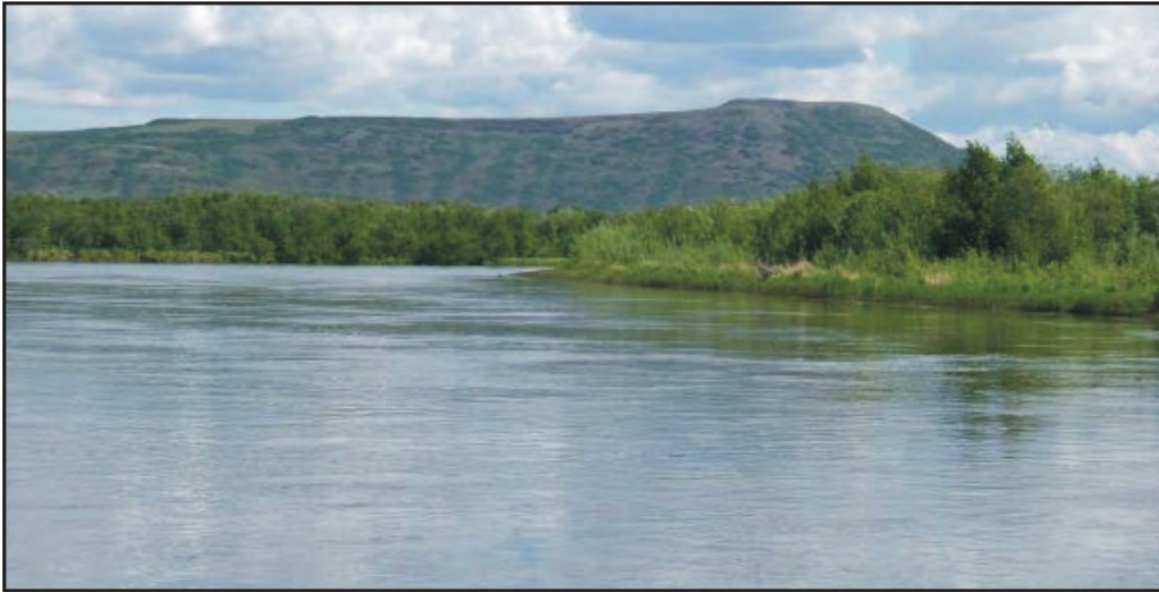


**Figure 10. The Kwethluk River at river mile 53 in the vicinity of Native Allotment AA-82909-B, August 14, 2001. The view is looking upstream, toward the southwest. Photo by Dorothy J. Bonds, BLM files, AA-82909.**



**Figure 11. The upper-middle portion of the Kwethluk River as viewed from Three-Step Mountain. The view is looking upstream, towards the south.**

The lower-middle portion of the Kwethluk River (Figures 3-4) is 29 miles in length (river mile 51 to river mile 22). Infrared aerial photography taken in 1980 shows this portion of the river to be 132-198 feet wide. It is moderately meandering (Figure 12) with oxbow lakes and thick vegetation on the banks.<sup>61</sup> (Attachment 17) From river mile 50 to river mile 29, the stream has a single channel, a gravel bed and mud banks. Bank erosion causes the stream to be turbid and silty all summer due to the channel cutting through mud banks near river miles 49-50.<sup>62</sup> The waters are murky, slow and meandering.<sup>63</sup> (Attachment 25)



**Figure 12. The lower-middle portion of the Kwethluk River with Three-Step Mountain in the background, summer 2006. The view is looking upstream to the south. Photo by Joe Joe, courtesy of Bethel Alaska Photo Gallery, <http://www.bethelak.com/photos>.**

The lower portion of the Kwethluk River (Figures 2-3) is 22 miles in length and extends from river mile 22 to the mouth at river mile 0. The river in this portion meanders through a wet tundra-dominated landscape known as the Kuskokwim Flats or lowlands. The Kwethluk River leaves the Yukon Delta NWR at river mile 49 and flows through Native owned lands. From river mile 29 to the mouth (river mile 0), the streambed has a deep meandering channel up to 175 feet wide. The bottom is mud covered and the water has a dark organic color.<sup>64</sup> The river is 200 feet wide and 15 feet deep at its mouth (Figure 13) near the village of Kwethluk.<sup>65</sup> (Attachment 3)





**Figure 13. Aerial view of Kwethluk River and Kwethluk village. The view is northwest. Photo from <http://www.city-data.com/forum/photography/-67128-water-world-rivers-streams.html>.**

The extent of tidal influence on the Kwethluk River is unclear. In a document dated October 13, 1976, the BLM noted that “the point of tidal influence” on the Kwethluk River extended upstream into Sec. 4, T. 8 N., R. 69 W., SM (river mile 2.5).<sup>66</sup> (Attachment 1) The ADF&G reported in 1977 that the extent of tidal reach on the river was to Secs. 25 and 26, T. 8 N., R. 69 W., SM.<sup>67</sup> (Attachment 4) The BLM reconfirmed the upper extent of tidal influence as being upstream to Sec. 4, T. 8 N., R. 69 W., SM in an Amended Easement Memorandum for Kwethluk Village selections dated October 11, 1978.<sup>68</sup> (Attachment 2) No other information on the extent of tidal influence on the Kwethluk River has been located.

The Kwethluk River is within the transitional climate zone, which is between the maritime and continental climatic zones. This transition zone in the Yukon-Kuskokwim Delta area extends 100 to 150 miles inland.<sup>69</sup> No weather-gathering stations are located along or near the Kwethluk River. The nearest station is at Bethel, about 10 miles from the river. The average annual precipitation in the area is between 20 and 40 inches.

The only known hydrological data gathered on the Kwethluk River dates from the 1970s. An ADF&G crew measured the stream flow of the middle portion of the Kwethluk River

(between river mile 50 and river mile 86) in late July 1977. The flow was 1,084 cubic feet per second at a point in the river that was 100 feet wide, 1.9 feet deep with a velocity of 6.25 feet per second.<sup>70</sup>

A BLM employee, Wayne Dawson, observed in a 1975 Navigability Field Report that the Kwethluk River had no obstructions to navigation and was used by outboard motor boats from May through October each year.<sup>71</sup> (Attachment 3) The field report did not indicate how far up the river outboard motor boats traveled. Based on photo interpretation, BLM Navigable Waters Specialist Laura Lagstrom concluded that the Kwethluk River from the mouth of Crooked Creek (river mile 110) to the farthest point upstream determined navigable in 1979 (river mile 47) is unobstructed except for a few gravel bars and debris, including downed trees in the channel. Aside from those obstructions, the BLM employee concluded, the width of the river in that section appears to be sufficient to allow passage.<sup>72</sup> (Attachment 31) Lagstrom wrote in 1998 that known impediments to boating the river between Elbow Mountain (river mile 75) and Breast Mountain (river mile 120) during low water included boulders, logs and sweepers, and gravel bars and shallow areas.<sup>73</sup> (Attachment 25) BLM Deputy State Director for Conveyance Management Wayne A. Boden wrote in 1991 that “to the best of my knowledge, the [Kwethluk] river was in its natural and ordinary condition at statehood.”<sup>74</sup> (Attachment 17)

## **V. Evidence of Use of the Waterway**

### *Early Native Use of the Kwethluk River*

Human occupation of the Kuskokwim area goes back 11,000 years to nomadic hunters of Pleistocene animals. These hunters were supplanted about 1,900 B.C., when Eskimos from the north moved into the lower Kuskokwim drainage, bringing with them the so-called Arctic Small Tool tradition.<sup>75</sup> Permanent occupation of the interior Kuskokwim Delta with chronological continuity began about AD 600.<sup>76</sup> Their descendents, the *Kusquqvagmiut* (also known as Yup'ik Eskimos or mainland southwest Alaskan Eskimos), have inhabited the Kuskokwim River and its tributaries down to the present as far inland as the village of Aniak. By 1880, their population was estimated at 3,100.<sup>77</sup>

A prehistoric site was reported at Kwethluk in 1930 when ten house pits and an associated graveyard were documented along the south bank of the river.<sup>78</sup> Radiocarbon tests from samples from some of these house pit features collected from the eroding river bank in 2001 indicate a late prehistoric occupation that began as early as AD 1500.<sup>79</sup> Archaeologist Robert Ackerman conducted archaeological surveys in the Kwethluk, Kisaralik and Goodnews drainages in the 1970s and 1980s. He located a number of artifact scatters, prehistoric and historic hunting and fishing camps, an abandoned village site and recent subsistence camps along the Kwethluk River, indicating a long history of human activity along the Kwethluk River and its headwaters.<sup>80</sup>

The *Kusquvagmiut* have lived a traditional subsistence lifestyle that spans many centuries. Subsistence is a form of production and consumption in which hunting, fishing and collecting plants are the primary sources of food and other necessities of life. Traditional Alaska Native subsistence practices involve harvesting, distributing and consuming resources. These activities include important social and religious components, one of the most important of which is the distribution and exchange of subsistence products within families, between families and bands, and with Native groups outside their territory. Each Native culture in Alaska has its own set of customs and values governing the transfer of subsistence goods, falling into categories such as ceremonial, sharing, partnership, trade and commercial exchange. The values which promote ceremonial feasting and distribution of subsistence resource goods have persisted in all Alaska groups.<sup>81</sup>

The *Kusquvagmiut* traveled by water craft to access, harvest, and transport subsistence resources to their village sites, and to distribute the harvested resources.<sup>82</sup> As contact with Russian fur traders and American missionaries, traders and miners increased in the nineteenth and twentieth centuries, the Native subsistence system of distribution and exchange gradually changed. While the *Kusquvagmiut* continued to sustain themselves through their hunting, fishing, and gathering efforts, their involvement in the fur trade brought about significant changes.<sup>83</sup> Contact with American traders increased the interaction between subsistence production and commercial exchange, including the sharing and trading of commercial and subsistence goods.<sup>84</sup>

The *Kusquvagmiut* used canoes to travel up the tributaries of the Kuskokwim River to fish for salmon, hunt and gather berries. The tributaries of the Kuskokwim enhanced the mobility of travelers and provided extensive access deep into the adjacent countryside. The Kwethluk, Aniak and Holitna rivers were, and to a lesser extent are, important routes to hunting, fishing and trapping areas.<sup>85</sup> Historically, the *Kusquvagmiut* used spears to harvest salmon in the swift, clear water tributary streams such as the Kwethluk, Kisaralik and Kanektok rivers.<sup>86</sup> Prior to the 1920s, the residents of the Kwethluk area lived in seasonal settlements and camps along the Kwethluk River such as *Okfirpaunlik*, a multi-season camp on upper Net Creek,<sup>87</sup> (Attachment 32) and *Cingineq*, a year-round village on the anabranch now known as Old Kwethluk River.<sup>88</sup> During the 1920s, people that were living upriver on the land began to be drawn to the permanent village of Kwethluk after missionaries and the government built churches and schools. People who moved from the interior to Kwethluk continued to travel by water to traditional hunting and fishing areas and seasonal camps associated with them.<sup>89</sup>

The first mention of Kwethluk village in historic records appears in a map published by E.W. Nelson in 1882. The map was based on interviews conducted with Natives in the area when he traveled by dog sled along through the Yukon-Kuskokwim Delta in 1878-1879. Nelson identified the village on his map as *Kuikhlogamute*. Ivan Petroff, who conducted the 1880 U.S. Census in western Alaska, reported the population of Kwethluk village as 75. Missionaries were the first major outside influence on the village. Russian Orthodox priests converted some villagers in the late 19<sup>th</sup> century and an Orthodox

building was constructed in the community about 1901. The Moravians established a regional headquarters in 1885 at Bethel, 12 miles away. The first Moravian missionary effort in Kwethluk was in 1889, but it was not until 1896 that the Moravians built a small chapel. The community remained primarily of the Russian Orthodox faith. Early twentieth century Kwethluk was an amalgamation of Kwethluk village residents and families from four settlements upstream along the Kwethluk River. The river provided a common bond and transportation link between these villages. The influenza epidemic of 1900 struck the area with devastating effect. The population of the up-river villages, such as *Cingineq* on Old Kwethluk River, was decimated.<sup>90</sup> A handful of relatives reestablished *Cingineq*, but left by the early 1940s and resettled at Kwethluk.<sup>91</sup> (Attachments 32 and 20) Only seven families in Kwethluk village survived the 1900 influenza epidemic. The population was slow to recover, with little growth from outside the area.<sup>92</sup>

Kwethluk village originally consisted of semi-subterranean sod houses with short entry passages. By 1928, all Kwethluk residents lived in one-two room log cabins. The village in 1930 consisted of 22 cabins and one aboriginal style *kashgee* where the men gathered. The first government school at Kwethluk was built in 1924, and the federal government set aside a 40-acre site for a school in the community by in 1930. Living conditions in the village were bleak, with large families crowded into small houses. Tuberculosis was estimated as infecting 40-60 percent of local residents.<sup>93</sup> In 1925, the Moravians established an orphanage and school at *Nunapitsinghak*, a site on the lower Kwethluk River, 2.5 miles above Kwethluk village.<sup>94</sup> Besides living a traditional lifestyle of subsistence hunting, fishing and gathering, the Kwethluk people participated in a government-sponsored reindeer-herding program to supplement income and provide an alternative food source. The community owned 31,000 reindeer in 1939. Reindeer were an important food source supplementing traditional subsistence harvests, but did not provide income to stockholders.<sup>95</sup> The current spelling of the village name dates from 1938. The population of the community was 186 in 1939 and 242 in 1950.<sup>96</sup> In 1953, 181 of the 232 people living in the village were born there. Most of the other residents were born within the region, most notably in Bethel, Aniak, Tuntutuliak, Eek and Kipnuk.<sup>97</sup>

Eskimos have used rafts on the Kwethluk River for hundreds of years to return from the mountains after spring hunts. Prehistoric hunting camps, lookouts and ancient stone fences used to guide the caribou to areas where they could be harvested are scattered throughout the Kuskokwim Mountains in the headwaters of the Kwethluk and Kisaralik rivers.<sup>98</sup> The core caribou hunting areas of Kwethluk hunters have been and continue to be at the headwaters of the Kisaralik, Kwethluk, Kasigluk, Akulikutak and Aniak rivers. Spring hunting camp in the mountains was an important part of the seasonal round for generations of Kwethluk and Akiak Natives. Before white men and motor boats, the Eskimos took their families by dogsled to the headwaters of the Kisaralik and Kwethluk rivers in the early spring. After spending weeks there catching parka squirrels and caribou, they constructed large skin boats. After breakup, they floated down the river in the skin boats, transporting meat, skins, sleds, dogs, tools and their families from their

spring hunting sites on the upper Kwethluk and Kisaralik rivers to their summer village sites near the Kuskokwim.<sup>99</sup>

These large, shallow-draft skin boats, known as *angyaqatiit* (bearskin boat), were made for a single journey and disassembled at the end of the trip. This broad raft-like craft was well suited for shallow, fast-moving streams. “They called it *angyaqatak* [from *angyaq*, ‘open skin boat,’ plus *qatak*, ‘about to be’] because they were building them only to return home,” according to Kwethluk elder Paul John. “They went up to the mountains in spring without boats, but their plan was to come back down river after breakup. While they were up there hunting, they tried to catch enough caribou or bears to make a boat with their skins.”<sup>100</sup> The *angyaqatiit* were almost as wide as they were long, and often carried a family group. Their broad beam promoted safe travel in the fast-moving waters of shallow mountain streams. The boat was almost round and did not easily capsize in rapids. The vessel was made so it would not easily get crosswise with the current and fill with water. The wide beam enabled the boat to carry a heavy load. The raft-like hull shape gave it equal stability in all orientations. In rapids and turbulent currents, the *angyaqatiit* was much more stable than a kayak, but harder to steer, as the added stability meant that it resisted changing positions. Two people, one in the front and one in the back, used wide paddles to guide the boat away from rocks or logjams as they floated down stream.<sup>101</sup>

Some built *angyaqatiit* at their camping places high in the mountains, but others packed their spring harvest out of the high country and past the places where the current was impassable below their hunting camps. Then they would begin boat construction. The boat frames were made from cottonwood, alder and willow. Since there were few trees in the mountains, wood had to be collected, sometimes at quite a distance from where they made the boat. They would split the wood to make the pieces useful. When wood was scarce, some men took apart their flat-bottomed sleds and used the slats for boat ribs. The men cut logs into one-inch-thick planks for the sides and bottom of the frame. The keel was made from a long, straight piece of wood running the length of the bottom. Sections of trunks or tree roots with a natural curve were used for the bow and stern pieces. The boat frame was then lashed together with rawhide line or, more recently, cord (Figure 14). When the frame was complete, men covered it with bear, moose or caribou skins that had been soaked in water and sewn together with waterproof stitches, then folded over the gunwales and lashed to the frame. The fur side of the skin rested against the frame to protect the skin from chafing against rough spots in the wood. This also helped with buoyancy, as water logged fur would weigh down the boat. After the boat frame was covered, the men heated caribou fat or tallow and used the rendered oil to paint the seams, making them watertight. If the seams were not painted, they would work loose, and the boat would fill with water.<sup>102</sup>





**Figure 14. Kwethluk hunters lashing frame members together for a bear skin boat on The Kwethluk River, 1988. Photo by John W. Andrew, reprinted from *Alaska Fish and Game*, November-December 1989, Vol. 21, No. 6, p. 12.**

Boat size varied, depending on the success of the hunt and the load to be carried downstream. An *angyaqatak* covered with one moose skin could carry the moose's meat along with the individuals who harvested it. Larger boats could be covered with two moose skins or the skins of brown bear, black bear, or caribou. If their load was large and they had enough skins hunters would make more than one boat. They would also put their dogs in and bring them along, or if possible they would take the dogs on foot following the river. As they traveled down the river, men were on the lookout for logjams and downed trees blocking their path. When pushed by the current, boats could fill with water and sink.<sup>103</sup>

Some men also made *angyaqatiit* to return from fall camp in September, when they again hunted for caribou, moose, and bear in the mountains. They went to fall camp in mid-August, walking beside the river and carrying their provisions in backpacks slung on wooden yokes. They followed a trail up behind the village of Kwethluk and along Three-

Step Mountain, and up into the mountains without crossing a major river. Once home, the travelers disassembled the boats and used their materials for other things. They stripped the skins from the frame and stored them after drying them. Bearskins could also be used as bedding and they were highly valued both for trade and as gifts during the annual Messenger Feast.<sup>104</sup>

Seven Kwethluk elders stated in interviews with the ADF&G staff in 1990 that families from Kwethluk left the community in late January or early February each year between 1900 and 1930 to hunt furbearers, moose, caribou and brown bear in the Kuskokwim Mountains near Togiak Lake, Tikchik Lake and the upper Aniak and Holitna river drainages and hunt squirrels near Heart Lake near the headwaters of Kwethluk River. As the snow melted, the men headed back west over the mountains to their camps where the women and children were trapping squirrel and snaring ptarmigan and hare. The families left these camps and headed over to the Kwethluk, Kisaralik, Eek and Kanektok rivers, where they built skin covered wooded-framed boats to drift downstream. The boats were made of spruce or cottonwood frames lashed together and covered with skins of caribou, reindeer, moose, or brown bear. These boats were capable of carrying several people, their gear, dried meat, and furs. The trip was often dangerous and the skin boats punctured easily. Swift water carried the rafts downstream at a relatively rapid speed. It took families approximately three days to ascend the river as far as Three Step Mountain, about 25 miles southeast of Kwethluk.<sup>105</sup> (Attachment 25)

According to Kwethluk elder Alexander Nicori, before snowmachines were used, villagers from Kwethluk and Akiak traveled by dog team to their spring camps. A common practice was to plan a time and place to meet after they were finished hunting and trapping so they could drift down-stream together in several boats. This was done in order to share in the preparation and construction of the boats, to share loads and to ensure safe travel. Nicori's uncle told him a long time ago that villagers built skin boats with frames made out of cottonwood trees that were 15-20 feet tall. The men split and quartered the wood before bending it into a frame. They covered the frame with skins before boarding the families and drifting downstream. As soon as the ice went out, usually around the 23rd of May, they began their descent downstream. Nicori believed the depth of the Kwethluk River ranged between a high of 10-15 feet and as shallow as 8-9 feet. This deep water lasted a couple of weeks. After arriving at Kwethluk village, they striped the boat of the skins. The following spring, when they returned to their spring camps, they sometimes brought the boat frame with them.<sup>106</sup> (Attachment 31)

Another long-time Kwethluk resident, Willie Andrew, also recalled using skin boats on the Kwethluk River. During March and April in the 1920s, villagers, including his uncle, traveled to their spring camps by dog team to hunt. Near the end of May, they descended the river in a skin boat.<sup>107</sup> (Attachments 31 and 25) John Andrews of Bethel stated in an interview in March 1998 that families, beginning around 1920, would leave the villages around the end of March or the beginning of April and travel by dog team and sometimes by foot to their spring camps in the Eek and Kilbuck mountains. They hunted bear and caribou and trapped beaver, ptarmigan, ground squirrel and fish in the lakes. Near the

latter part of May, they began floating downstream, which took several days, using wooden framed boats covered with skin. Andrews remembered their boat being covered by three brown bear hides. They also used caribou and moose skins, but bear was more desirable since it did not puncture as easily. They drifted and paddled downstream and camped near the mouth of Crooked Creek, Devil's Elbow and Three Step Mountain. Before outboard motors were available, the families would drift all the way to the villages.<sup>108</sup> (Attachment 31)

John Andrews of Bethel remembers going by dog team to spring camp with his family in 1952. They had between 9-14 dogs. When they were ready to drift down the river, his father broke down their sled and used the sled material for the floor boards of the boat. He covered the frame with skins of a brown bear, an adult moose and a yearling calf. Their load included John's mother, father, his sister, David Evan, Alexander Nicori and himself, their dogs, and their subsistence harvest. The hunting, trapping, food preparation and preservation, the building of the boats, and preparation of the skins all had to be coordinated to leave when the ice went out and the water level was high enough to drift down. The skin boats were easily punctured. Families gathered at the lowest downstream camp and seven or more families traveled together down the river. In the 1960s, Andrew said, families began to travel by snow machine to their spring camps.<sup>109</sup> (Attachment 31) Richard Long of Kwethluk recalled that when he was younger, he went up the Kwethluk every year with his family by dog team and they floated downstream (Figure 15) in skin boats.<sup>110</sup> (Attachment 31)



**Figure 15. Seven men riding in a skin boat on the Kwethluk River, circa 1950. Photo from the Lind Collection, Anchorage Museum at Rasmuson Center, and was part of the Yupik Science Exhibit.**

From <http://www.yupikscience.org/rriversspring/4-1.html>.



### *Non-Native Use of the Kwethluk River prior to Statehood*

The first report of a gold discovery in the Kuskokwim drainage occurred on a tributary called the Yellow River. The news reached Nome in the fall of 1900, and several hundred prospectors rushed to Bethel, then spread out to investigate the Kuskokwim's tributaries. Prospectors on the Takotna River crossed a low divide and discovered gold in the Innoko River drainage in 1906. Other prospectors discovered gold in 1907 on Bear Creek, in the headwaters of the Tuluksak River north and east of the Kwethluk River. Two years later, they discovered gold on Crooked Creek, a tributary of the Kuskokwim above the Aniak River.<sup>111</sup> As prospectors made these early gold deposits in the Kuskokwim drainage, the Kuskokwim River became a major trade route between Bethel and the gold fields. In 1913, a Norwegian prospector, Jenns Kvamme, found a small placer deposit at Canyon Creek on the upper Kwethluk River, resulting in a small rush up the Kwethluk River.<sup>112</sup> Small scale mining activity on Canyon Creek (Figure 16), now known as Crooked Creek, continued until about 1940.<sup>113</sup>



**Figure 16. Miners shoveling gravel into sluice boxes on Canyon Creek, at the headwaters of the Kwethluk River, about 1920. Photo by Joe Felder, reprinted from Mary Lenz and James H. Barker, *Bethel, The First 100 Years*, p. 38.**

Early prospectors prepared two maps of the Kwethluk River. Herman W. Reeth created a "Topographical Sketch Map of the Kuskokwim Gold Belt" in 1912, prior to the discovery of gold on Canyon Creek. On the map (Figure 17), Reeth called the Kwethluk River the "Kwithluk River," using the spelling convention common at that time. He identified the Kisaralik River as the "Reglugalic River" and the Kasigluk River as the "Kislaralark River." Reeth's map showed the location of "Kwithluk" village on the south bank of the Kwithluk River near its mouth.<sup>114</sup> In the spring of 1914, Charles Estmere drafted a map of the Kwethluk River, which he provided to Alfred A. Maddren of the USGS.<sup>115</sup>

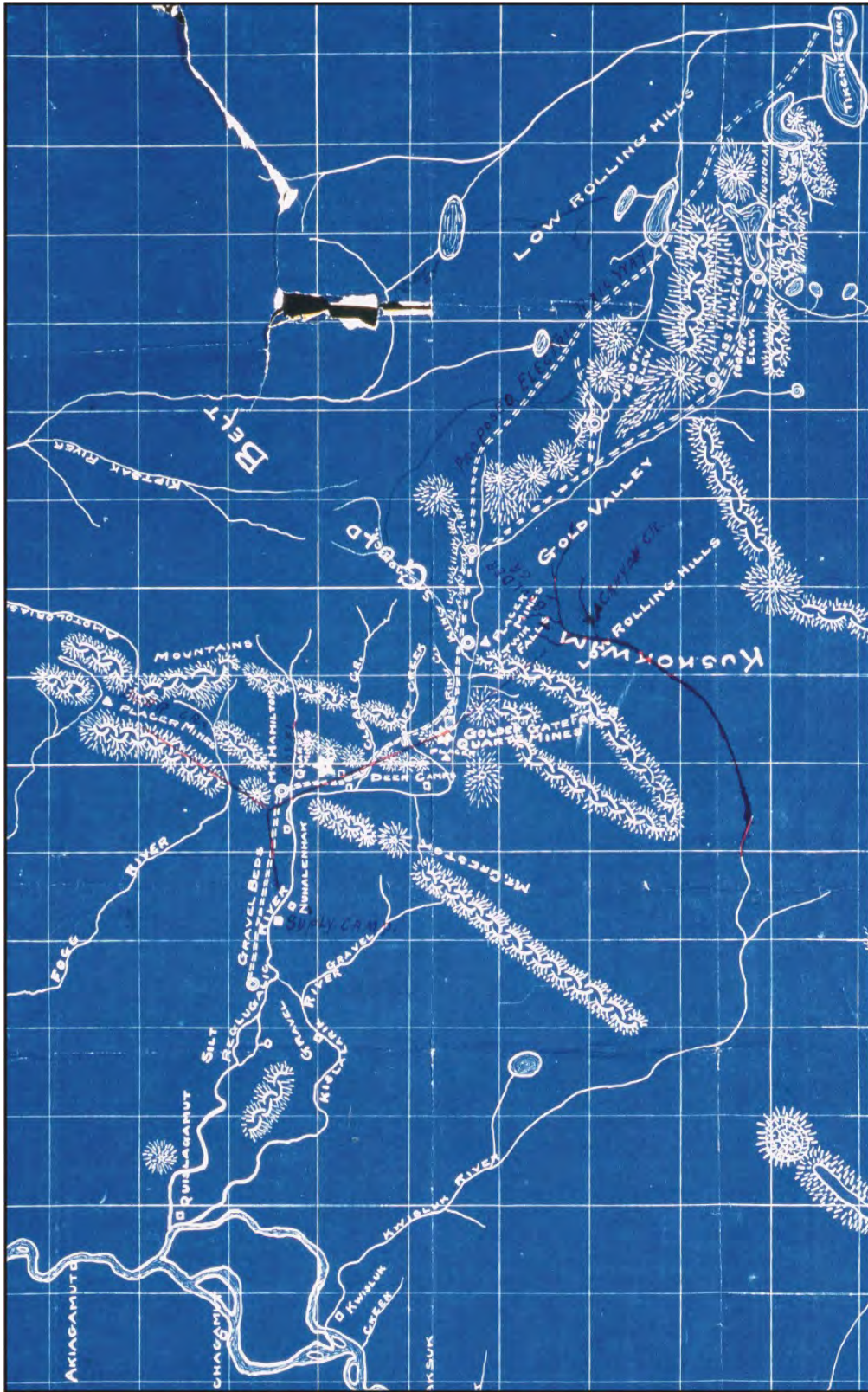


Figure 17. Portion of Topographical Sketch Map of the Kusokwim Gold Belt, by H.W. Reeth, 1912, showing the Kwethluk River, shown on the map as the Kwethluk River. The Kisaralik River is shown on the map as the Regulugalic River. The hand writing was added by Reeth. Record Group 30, Records of the Alaska Road Commission & Bureau of Public Roads, Program Planning and Research Correspondence, Juneau, Alaska, 1894-1958, Box 38, National Archives and Records Center, Anchorage.



During the early prospecting and mining period on Canyon Creek, the Kwethluk River was reported to be suitable for navigation. On July 18, 1914, the *Iditarod Pioneer* reported the departure of Andrew M. Johnson and a companion with a mining outfit from Aniak in a motor-powered boat. The two men were bound for the Canyon Creek diggings where Johnson intended to spend the summer.<sup>116</sup> Later that summer, Frank Joaquin of Bethel told Alfred G. Maddren of the USGS that the “Kwithluk River” was the best route of travel to the newly discovered diggings on Eek River. According to Joaquin, one could reach a trail leading to the Eek River diggings by ascending the Kwethluk River a distance of about 30 miles.<sup>117</sup> In 1915, residents of the Bethel area told H.A. Cotton of the U.S. Coast and Geodetic Survey that the Kisaralik River offered “about the same advantages for navigation” as the Kwethluk River. They also said that one could take a fifty-ton steamboat up the “Kuethluk” River a distance of 25 miles and small boats with a draft of about one foot could travel an additional 75 miles up the river. Cotton noted that poling boats furnished the only means of getting supplies up the small tributaries of the Kuskokwim where the small stern-wheelers were unable to ascend. Several people had brought in stern post motors for use on poling boats and were getting good service from them.<sup>118</sup>

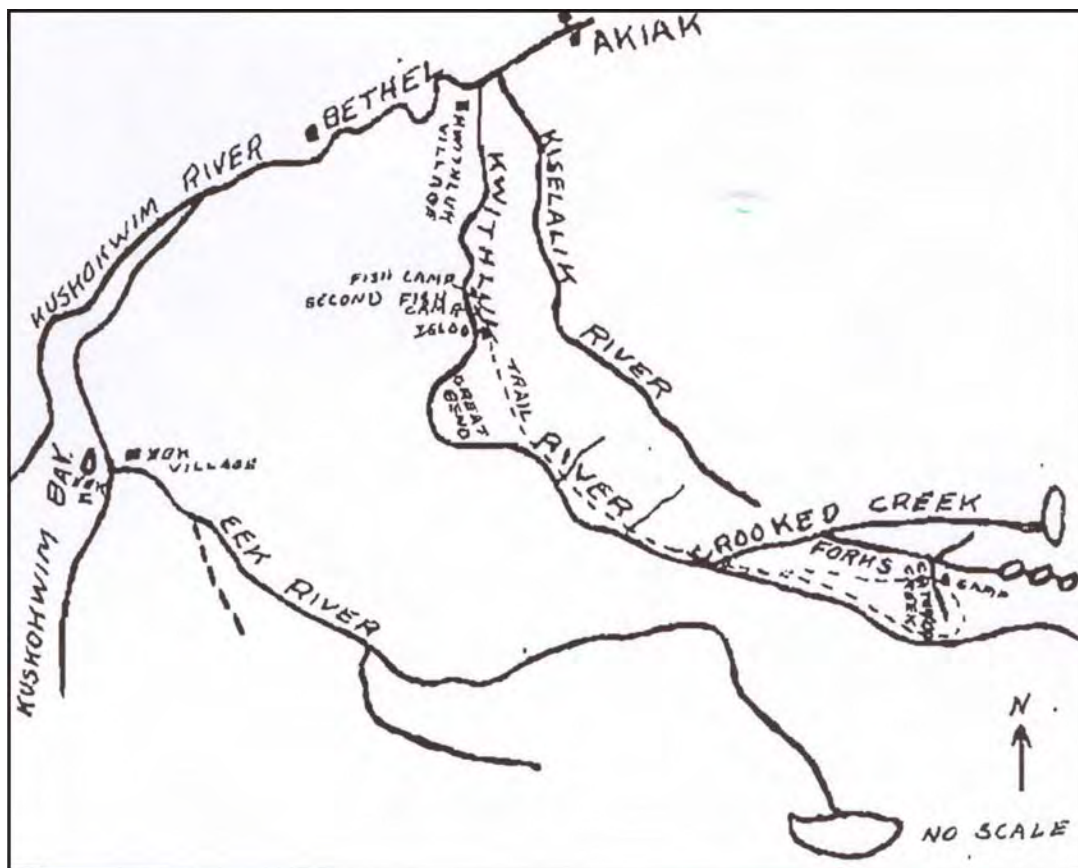
Herman Reeth proposed building an electric railroad (shown on his 1912 map) that would extend from a point a few miles west of his supply camp near *Nunalenhak* and would parallel the north side of the Kisaralik River to his mining camps. He was unable to raise funds to build the rail line, so he attempted to persuade the Alaska Road Commission (ARC) to build a wagon road from Akiak by way of the Kisaralik River basin to the Canyon Creek mines in the upper Kwethluk River drainage.<sup>119</sup> In 1922, Reeth found out that miners on Canyon Creek in the upper Kwethluk River drainage had petitioned the ARC to construct a bridge on the Akiak-Canyon Creek winter trail over the Kisaralik River. Reeth wrote Alaska Governor Scott C. Bone that the proposed bridge site, near the mouth of the Kisaralik, was poorly located as every spring break-up the banks caved in ten feet or more. Since the proposed Akiak-Canyon Creek winter trail traversed a swampy, lake-studded lowland for thirty or forty miles and could never become a summer trail, Reeth proposed that the government construct a wagon road from the village of Nunalenhak up the north side of the Kisaralik River to Golden Gate Falls and then south over a pass to Canyon Creek in the upper Kwethluk River drainage.<sup>120</sup> Governor Bone referred Reeth’s letter to the ARC and Colonel James G. Steese, President of the ARC, advised Reeth on March 15, 1923, that the ARC intended to investigate the situation as soon as possible.<sup>121</sup> Steese made no mention of Reeth’s proposed wagon road in his reply, so Reeth wrote the ARC in December 1924 urging construction of a wagon route up the Kisaralik that would lead to the Canyon and Boulder creek placer mines.<sup>122</sup> There is no record that the ARC replied to Reeth’s letter. In 1926, the ARC placed ferry boats near the mouths of the Kisaralik and Kushluk [Kasigluk] rivers as part of a 45-mile trail between Akiak and Canyon Creek.<sup>123</sup>

Mining engineer Frank Holzheimer visited the Canyon Creek mines in 1926 and wrote a report on the area for the Territorial Department of Mines. His report included a sketch map of the Kwethluk River (he spelled it “Kwithluk”) and Canyon Creek, which he

called Crooked Creek (Figure 18). Holzheimer wrote that Canyon Creek was most accessible by winter trail from Akiak or Bethel. “Summer travel on the Kwithluk River,” he noted,

is restricted to poling boats. The nearest point to Canyon Creek, except in cases of extreme high water, reached by poling boat is a small native village known locally as the second fish camp, 70 miles from Canyon Creek by trail. The second fish camp is 25 miles from the mouth of the Kwithluk by tundra trail or 70 miles by river.<sup>124</sup>

Holzheimer added that the trail to Canyon Creek was only practical for foot travel. The ARC maintained two boats for the trail crossing at the mouth of Crooked Creek, but miners moved most of their supplies and equipment to the mines in winter. Reeth appealed to the Territory again in 1937 for assistance in building a road along Kisaralik River route to Canyon Creek. He met with an ARC official on July 20 and argued that a road could be built from Akiak up the Kisaralik River to Canyon Creek at “very little expense” and “would open a highly mineralized section both in placer and quartz.”<sup>125</sup>



**Figure 18. Sketch map of the Kwethluk River by mining engineer Frank Holzheimer, 1926. Reproduced from Holzheimer, “Canyon Creek, Kwithluk River Region, Alaska,” (1926), p. 1.**



The ARC decided not to build a road up the Kisaralik River valley to Canyon Creek because mining in the area had not developed sufficiently to warrant the expense. H. M. “Big Hans” Hansen of Bethel, who knew the area well, reported there was little mining in the area and miners at Canyon Creek relied upon airplanes to access their property. A winter trail already existed to Canyon Creek, he wrote, that cut across the flats to Columbia Creek and then up Crooked [Canyon] Creek. Hansen discounted Reeth’s opinions on the need for a road, and claimed that all that the Canyon Creek miners needed and wanted was a 75-foot bridge across Crooked Creek.<sup>126</sup>

While efforts to build wagon roads to supply miners on the upper Kwethluk drainage were going on, medium size water craft brought supplies and building materials to Kwethluk village, located a half mile upstream from the river’s mouth. The U.S. Bureau of Education constructed a school and living quarters for the teacher in Kwethluk Village during 1924.<sup>127</sup> Materials for the building were transported to Kwethluk by vessel, but the identity and size of the vessel is unknown.

During the summer of 1925, the Moravian Mission in Bethel constructed the Kuskokwim Orphanage and Training School at *Nunapitsinghak*, located three miles upstream from Kwethluk Village on the east side of the Kwethluk River. The orphanage, which opened in 1926, consisted of a large 44x70-foot building that housed the orphanage, a school and a cottage for the superintendent and his family. The *Moravian II* (Figure 19), a 64.7-foot long motor launch with a 17-foot beam and 6-foot deep hold, made numerous trips during the summer of 1925 between Bethel and *Nunapitsinghak* carrying construction materials for the two buildings. Built in Bethel in 1924, The *Moravian II* was capable of carrying a payload of 75 tons. The Moravians constructed a maintenance shop and green house in 1928, a boys’ dormitory in 1940, and a superintendent’s cottage in 1947. The *Moravian II* and other motor launches carried the materials for these buildings 3.5 miles up the Kwethluk River. They also carried five surplus prefabricated “yak huts” in 1945 from the U.S. Army camp at Bethel to the Moravian Orphanage at *Nunapitsinghak*.<sup>128</sup>

A party consisting of two U.S. Department of Agriculture range inspectors and the owners of the reindeer herd in the upper Kwethluk River drainage used open river boats with outboard motors (Figure 20) to travel up the Kwethluk River to Crooked Creek in July 1930. The group started at Bethel, made its way up the Kuskokwim, then up the Kwethluk River for 110 miles to Crooked Creek to observe a reindeer roundup. The use of such boats was common at the time. A Native messenger traveling up the Kwethluk River to meet the party lost his engine off his boat. From the confluence with Crooked Creek, the party continued overland on foot to the roundup. They returned to the boats on July 26<sup>th</sup> and traveled down river to Akiak, where they arrived on July 28<sup>th</sup>. One of the range inspectors noted in his report that:

The best means of travel other than by air during the summer is by the use of motorboat as many of the streams entering the Kuskokwim River are navigable. However, to observe the ranges properly, it is necessary to cover the areas adjacent these streams on foot.<sup>129</sup>



**Figure 19.** The motor launch *Moravian II* at anchor in Bethel, 1926. Photo reprinted from Henkelman and Vitt, *Harmonious to Dwell* (1985), p. 319.



**Figure 20.** Outboard motor boats at the confluence of Crooked Creek and the Kwethluk River, July 1930. This party of federal range inspectors and the owners of a reindeer herd in the upper Kwethluk River valley traveled in these boats from Bethel up the Kwethluk River to Crooked Creek. Photo by W.B. Miller, from “Reindeer Service: Miller-Kuskokwim, 1930,” from Territorial Governor’s Records, Alaska State Archives, Juneau.

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

Native fishermen, hunters and trappers have used wooden skiffs with outboard motors on the Kwethluk River from at least the early-1950s to access areas conveyed to Native corporations and to access areas now managed as the Yukon Delta NWR and the Togiak NWR for subsistence activities. Most travel on the river during the open season prior to Statehood (1959) was by small boats powered by outboard motors or by dog sled overland in the winter and then down the river in skin boats. Boats with aluminum hulls became common in the 1970s as the people of Kwethluk traveled between their village and their traditional fishing, hunting and berry picking sites on the river (Figure 21). A few Natives have also used skin boats to descend the Kwethluk River into the 1980s. Information documenting Native use of the river from the late 1940s through the 1980s comes from federal and state records. The first source consists of Native allotment applications adjudicated by the BLM under the ANCSA.



**Figure 21. Aluminum boats lined up along the bank of the Kwethluk River where it passes through the Native village of Kwethluk. Photo courtesy of <http://1h3.ggph.com>**

The BLM began collecting information in the 1970s to adjudicate Native allotment applications filed by local Natives that have fished, hunted and picked berries along the Kwethluk River. The Natives used power boats to access favorite spots for hunting, trapping, fishing and berry picking along the river (Figure 22). These favorite spots, through customary use, developed into exclusive use areas. The federal government recognized many of these allotments and transferred title to the sites to the applicants.



Twenty-eight individuals filed Native allotment applications for 29 parcels on the portion of the Kwethluk River between river mile 47 and river mile 135 and on tributaries of the river within the Yukon Delta NWR and Togiak NWR.



**Figure 22. A fish camp on the Kwethluk River near the village of Kwethluk. Photo from Kris's Gallery, <http://picasaweb.google.com/1h/photo/7EpG-GHGMeiTTw0U6SnNuA>**

Twenty-eight Native allotments are located along the Kwethluk River upstream of river mile 47.5 and along tributaries of the Kwethluk River such as Net Creek, Old Kwethluk River, and several other tributaries within the boundaries of national wildlife refuge lands. Native allotment files for these 28 allotments indicate that 14 of the allotments were used seasonally in the spring, 21 were used in the summer, 14 were used in the fall, and 13 were used in the winter. Documents in only six of these Native allotment files, including application forms and BLM field inspection reports, indicate the applicants accessed their parcels during the open season (when the water bodies are not frozen) by boat. In all of the other files, the means of access is not indicated. Native allottees from Kwethluk, according to a 1997 BLM memorandum, rely heavily on water bodies to reach traditional harvest areas to supplement their lifestyle and economy. “To reach those areas for harvesting, the most common form of transportation is an 18’-24’ aluminum boat with a 25-40 horsepower propeller motor.”<sup>130</sup> (Attachment 33) Native allottees of two parcels (AA-8287 at river mile 133.0 and AA-8289 at river mile 134) used their parcels only during the winter and accessed them by dog sled or snowmachine.

Annie M. Alexie (deceased) of Kwethluk filed an application in November 1970 for an 80-acre Native allotment (FF-17052-B) in Sec. 7, T. 7 N., R. 68 W., and Sec. 12, T. 7 N., R. 62 W., SM at river mile 10 on Net Creek, a left bank anabranch of the Kwethluk River. Mrs. Alexie was born in 1932 and died in 1979. She began using the parcel seasonally in 1950 from August through September to hunt, fish for whitefish and pike, and pick berries for winter use.<sup>131</sup> Mrs. Alexie claimed she used a tent frame site on the parcel, but a BLM realty specialist was unable to locate the claimed improvements.<sup>132</sup>

In an interview report dated December 8, 1997, a BLM employee noted that local people from Kwethluk travel by boat on Net Creek, locally known as *Kuviak'ya'chal'vick*. Wassille Evan told the BLM employee that he took three people up Net Creek in August 1997 with his 20-foot Alumaweld boat with a 45-horsepower propeller motor. Evan described the creek as 10-15 feet deep and about 20 feet wide during high water conditions that occur during the spring and fall. During June and July, the creek was between 6 and 8 feet deep. Another Kwethluk resident, Carl Nose, described Net Creek as navigable from spring to fall. He stated that he goes hunting along the creek every year for ducks, geese, swan, white fish, pike and grayling. He used an 18-foot Lund with a 40-horsepower propeller motor. Nose said there were no obstructions, but some portions of the creek are only 10 to 12 feet wide. The last time he boated the creek, in May 1996, there were three people in the boat plus extra gas, food, camping gear and lots of ammunition. The creek was 6 feet deep or more. Frank Frank, another Kwethluk resident, reported that Net Creek was open to boat traffic during the spring, summer and fall. He used 16-foot and 18-foot Lunds with a 40-horsepower motor to fish and hunt along Net Creek. He described the water body as very narrow, 12-foot wide or more in places, but deep enough (4 to 5 feet) for boat traffic. Sometimes he carried over 1,000 pounds. He stated that one could enter the creek from either end with no problem.<sup>133</sup> (Attachment 31)

Four Native allotments are located in the vicinity of Three Step Mountain along the Kwethluk River between river mile 49.5 and river mile 53.0. The first three files do not indicate the allottees' means of access in the open season. Mary O. [Evans] Jones of Kwethluk filed an application in November 1970 for an 80-acre Native allotment (FF-17059-B) in Sec. 6, T. 5 N., R. 67 W., SM at river mile 49.5 on the right bank (east side) of the Kwethluk River. Mrs. Jones began using the parcel in 1947 from May through June to fish for pike and whitefish. During the summer and fall, she and her family picked berries on the parcel.<sup>134</sup> She claimed a tent frame as an improvement on the parcel, which a BLM realty specialist located during the field inspection.<sup>135</sup>

Elena E. Olick of Kwethluk filed an application in November 1970 for an 80-acre Native allotment (FF-17218-A) in Secs. 6-7, T. 5 N., R. 67 W., SM, on the right bank of the Kwethluk River at river mile 50.0. She began using the parcel in 1941 from May through June to fish for pike and whitefish "for subsistence use." She and her family used tents while camped in the area, which she called *Etrtsagnitolse*.<sup>136</sup> A BLM realty specialist located a camp site on the parcel during the field inspection.<sup>137</sup>

Alfred Togayak (deceased) of Kwethluk filed an application in November 1970 for a 99-acre Native allotment (FF-13559-B) in Secs. 7, 8, 17 and 18, T. 5 N., R. 67 W., SM. The parcel is located at river mile 52.0 on the left bank (west side) of the Kwethluk River, one mile southwest of Three Step Mountain. Togayak, who was born in 1925, stated in his application that “my family started using this land when I was a boy for hunting and fishing. I started using the land in 1959 in the traditional way of life of my ancestors.” He occupied the area from June 3<sup>rd</sup> to September 15<sup>th</sup> each year for hunting and fishing. Improvements included a cache, smoke house, fish racks, dog tie poles and tent frames.<sup>138</sup> During a field visit conducted on July 29, 1974, a BLM realty specialist verified that the land was capable for the uses described by the applicant, but found no evidence of improvements.<sup>139</sup> The applicant and two witnesses from Kwethluk, William Nicolai and Paul Kopuk, filled out affidavits that Alfred Togayak used the parcel for hunting and fishing over the years.<sup>140</sup>

John J. Rogers, originally from Kwethluk but now living in Anchorage, filed an application in April 2001 for a 160-acre Native allotment (AA-82909) in Secs. 17-18, T. 5 N., R. 67 W., SM at river mile 53.0 on the left bank of the Kwethluk River. Rogers was born in 1946 and began using the parcel in 1958 when he was 12 years old. He continued using it for subsistence purposes each year until 1963, when he entered the U.S. Army. He resumed using the parcel after he was discharged in 1974.<sup>141</sup> He used the parcel to fish for grayling and trout from May to August, and silver and red salmon from the bank of the Kwethluk River in August to October. He also went to the parcel to pick cranberries, raspberries, rosehips, and blueberries during the summer and fall. He hunted moose, caribou, rabbit and fox each year during December and January. During the field inspection of the parcel, a BLM realty specialist noted that “Mr. Rogers accesses the parcel by a large skiff [from Bethel] and follows the Kuskokwim River, then to the Kwethluk River during summer and fall.” During the winter months, Rogers accessed the parcel by snow machine.<sup>142</sup>

Balassia Nicolai (deceased) of Kwethluk filed an application in November 1970 for a 160-acre Native allotment (FF-16012) in Secs. 16-17, T. 5 N., R. 67 W., SM on a small unnamed tributary on the east side of the Kwethluk River near river mile 52.0, just southwest of Three Step Mountain. The mouth of the creek is in Sec. 8, T. 5 N., R. 67 W., SM, and her Native allotment is located about a mile up stream. Mrs. Balassia was born in 1911 and died in 1984. She began using the parcel in 1965 from August through September to pick berries “for subsistence use.” She used tent frames while camped in the area, but the camp site was not on the parcel.<sup>143</sup> The BLM realty specialist who visited the allotment in 1975 noted that the parcel was a good berry picking area, but he was unable to locate a camp site during the field inspection.<sup>144</sup> The Native allotment file did not indicate how the parcel was accessed, but interviews conducted by BLM employees some years later sheds light on the means of access. Ruth Nelson, a resident of Kwethluk and Balassia Nicolai’s daughter, stated in an interview in 1997 that her parents used to drift down the Kwethluk River in a skin boat. They stopped along the Kwethluk River (in the vicinity of river mile 52) and hiked overland to access Balassia



Nicolai's allotment. Nick Epchuck, Balassia Nicolai's son-in-law, ascended the unnamed creek to the family's Native allotment in 1996 to pick salmon berries.<sup>145</sup> (Attachment 32)

Three Native allotments and a 14(h)(1) historic site selected by Calista Corporation are located on a left tributary of the Old Kwethluk River, approximately a mile west of the Kwethluk River at river mile 54. Oral accounts and cultural remains indicate that the historic site (AA-10429) was a small year-round settlement known as *Okfirnpanutik*. The first of three distinct periods of occupation ended when most of the residents perished during the influenza epidemic in 1900. A handful of relatives re-established the village, but left in the early 1940s and resettled at Kwethluk. The area is now used seasonally by subsistence hunters, including former site residents and their descendants.<sup>146</sup> (Attachments 31 and 19) The three Native allotment files do not indicate how the allottees accessed the parcel.

The first allottee, John W. Andrew of Kwethluk, filed an application in November 1970 for an 80-acre Native allotment (FF-19254-A) in Sec. 19, T. 5 N., R. 67 W., and Sec. 24, T. 5 N., R. 68 W., SM on the north side of the historic site. Andrew began using the parcel seasonally in 1960 from May 15<sup>th</sup> to March 31<sup>st</sup> to fish for pike, lush fish, silvers, and grayling and to pick berries. He called this place *Kipsargak*.<sup>147</sup> He used a tent site on the parcel. A BLM realty specialist noted in 1974 that several old roofless and rotting cabins (part of the old village site) were in a clearing on the property.<sup>148</sup>

The second allottee, Elizabeth A. Nicolai of Kwethluk filed an application in November 1970 for an 80-acre Native allotment (FF-18289-C) in Sec. 19, T. 5 N., R. 67 W., and Sec. 24, T. 5 N., R. 68 W., SM, just south of the historic site. Mrs. Nicolai began using the land in 1952 every fall for fishing in the creek with nets, gathering birch "fungi" to sell, and trapping in the winter.<sup>149</sup> Her allotment, which she referred to as *Tyingnovk*, adjoins her brother's allotment (FF-19254-A). She and John Andrew shared a camp site in the large clearing containing old roofless cabins on their common border.<sup>150</sup> The third allottee, Anna T. Nicolai of Kwethluk, filed an application in November 1970 for a 160-acre Native allotment (FF-15926) in Secs. 25-26, T. 5 N., R. 68 W., SM. She began using the parcel in April 1948 as a spring camp to trap and fish, and to cure and dry meat. Mrs. Nicolai and her family also went "there for fall camping to fur trap" and they picked cranberries, blueberries and Moss berries.<sup>151</sup> She had no improvements on the parcel.<sup>152</sup> Kwethluk resident John Andrew told a BLM employee in 1997 that he accessed his Native allotment by boating up the Kwethluk River (to about river mile 54) and walking overland to his allotment because the Old Kwethluk River was frequently too shallow—1 to 2 feet deep.<sup>153</sup> (Attachment 32)

David Togayak of Kwethluk filed an application in November 1970 for a Native allotment in two parcels totaling 160 acres along the Kwethluk River. The first parcel was 155 acres (FF-25342-B) in Secs. 4-5, T. 4 N., R. 68 W., SM (river mile 58.0) straddling the Kwethluk River. The second parcel was 5 acres (FF-25342-A) in Sec. 9, T. 4 N., R. 68 W., SM (river mile 58.5) on the left bank of the Kwethluk River. Togayak began using Parcel A in June 1926 and began using Parcel B in November 1932 for

trapping, hunting and fishing for “seasonal use of subsistence.” In his application, he wrote “At this land, we hunt moose, mink, otter, rabbits, foxes, wolverines, ground squirrels, muskrats, beach bear, grizzlies and brown bear.” He claimed improvements included a log cabin, tent frame, steam house frame and fish racks, all constructed in 1932, and trails.<sup>154</sup> During a field examination in 1974, a BLM realty specialist found the ruins of the cabin and other improvements and noted that the claimant also stated that he picked berries on the parcels.<sup>155</sup> In an affidavit, Togayak stated that he traveled to the two parcels by dog sled, boat and snowmachine, depending on the season.<sup>156</sup> In a follow up field report of a visit to Parcel A in August 1989, another BLM realty specialist wrote that the applicant told her that he “goes by boat down the Kwethluk River to the parcel in the summer and spring time. Sometimes he walks from Parcel B to A. In the winter time, he goes by snowmachine.” After inspecting Parcel B on the same day, the BLM realty specialist wrote that the “applicant goes from the village of Kwethluk down [up] the Kwethluk River to the parcel by boat in summer and spring.” She added that he used to go by dog team in the winter, but in recent years has made the trip by snowmachine.<sup>157</sup>

Five Native allotments are located along the Kwethluk River from river mile 58.0 to river mile 64.5. There is no indication in these allotment files of how the allottees accessed their parcels when the river was not frozen. Kwethluk resident John Andrew, who has an allotment at river mile 132.5, told a BLM employee that one can boat up the Kwethluk River as far as Elbow Mountain (river mile 75) during June and July.<sup>158</sup> (Attachment 25)

Martha Togayak (deceased) of Kwethluk filed an application in November 1970 for an 80-acre Native allotment (FF-15927-B) in Secs. 9 and 16, T. 4 N., R. 68 W., SM, on the east side of the Kwethluk River at river mile 59.0. Togayak’s allotment included separate winter and summer camps. She began using the parcel in August 1968 to fish for trout and hunt moose.<sup>159</sup> In the mid-1970s, the fish camp consisted of a smoke house, cache and drying racks. Traps were visible hanging on the smoke house. The winter camp, located a short distance up river from the fish camp, included two sod houses, one half completed and the other at least several years old. Willie Andrew, who accompanied the inspection team, told the BLM realty specialist that Mary Togayak built the fish camp in the late-1960s and spent two summers there. She also spent two winters at the winter camp before she died in 1972 or 1973. The BLM field inspection team traveled to the allotment by helicopter and landed on a nearby sand bar. Frank Nicori, a Kwethluk resident who was fishing in the area, took the inspection team to the fish camp on the allotment in his boat.<sup>160</sup>

Alexie Alfred Alexie of Bethel filed an application in September 1971 for a 160-acre Native allotment (FF-15923) in Sec. 16, T. 4 N., R. 68 W., SM, on the east side of the Kwethluk River at river mile 61.0. Alexie began using the parcel in 1962 for subsistence purposes from April through October. “This land has been occupied by me and the family,” he stated in his application, “and used as a hunting, fishing and trapping site for many years.”<sup>161</sup> Improvements at the site included a mud house, a tent frame and a drying rack. During the summer, the applicant stated, he fished in the Kwethluk River

for rainbow trout, grayling, red salmon and occasionally King salmon and whitefish. In the winter, he hunted mink, moose and jackrabbits.<sup>162</sup>

Wassillie Michael of Kwethluk filed an application in September 1970 for a 160-acre Native allotment (FF-13610) in Secs. 16 and 21, T. 4 N., R. 68 W., SM, on the east bank of the Kwethluk River at river mile 61.5. He began using his parcel year-round in 1954. He wrote in his application: "I go up by dog team to reach the hunting ground and I use this land for hunting, trapping, also fishing."<sup>163</sup> During the field inspection in 1974, Michael told a BLM realty specialist that he traps mink in this area during the winter and fishes for rainbow trout in the summer. Although the parcel is 25 air miles from Kwethluk, Michael stated that people from the village come up to his area to fish in the summertime. He used to come up from Kwethluk in the winter time by dog team, but in recent years he has traveled from the village by snowmachine.<sup>164</sup>

Nick Alfred of Kwethluk filed an application in November 1970 for a 160-acre Native allotment (FF-15924) in Secs. 21 and 28, T. 4 N., R. 68 W., SM., on the right bank (east side) of the Kwethluk River at river mile 63.0. He began using the parcel in 1966 during August and September. "I use this 160 acres," he wrote in his application, "as fishing, trapping and hunting grounds each year, also made [sic] a family trip to pick berries."<sup>165</sup> During the BLM field inspection, Mr. Alfred pointed out two different camp sites on the parcel that belonged to him.<sup>166</sup>

Nicolai Andrew of Kwethluk filed an application in January 2001 for a 160-acre Alaska Native Veteran's Allotment (FF-15925) in Sec. 33, T. 4 N., R. 68 W., SM, on the east bank of the Kwethluk River at river mile 64.5. He began using the parcel in 1953 from May to December for "hunting, trapping and curing fish for subsistence." Improvements included a hunting tent, place [pole] frames and dog tie poles dating from 1953.<sup>167</sup> The applicant's son, Willie Andrew, accompanied a BLM realty specialist to the site in 1974. He pointed out the camp site on the parcel and said that this was the spot where his family set up their tents and where for many years they had tied their dogs.<sup>168</sup>

The file for a Native allotment at river mile 65.2 contains documentation that the allottee accessed his parcel by travelling up the Kwethluk River by boat. Matthew J. Andrew of Kwethluk filed an application in January 2001 for a 160-acre Native veteran's allotment (AA-82929) in Sec. 4, T. 3 N., R. 68 W., and Sec. 33, T. 4 N., R. 68 W., SM, on the east bank of the Kwethluk River, 12 miles south of Three Step Mountain. He began using the parcel in 1957 with his father and in 1964. He began independent use of the parcel at the age of 15 years. He used the parcel until he entered the U.S. Army in 1969 and resumed using it when he was discharged in early 1972. He used the parcel from August into the fall for hunting waterfowl and in January and February for trapping beaver.<sup>169</sup> The BLM field inspection report indicated that:

Mr. Andrew accesses the parcel by boat in summer and fall. When he used to come to the parcel in the winter time, he and his dad at first used a dog sled team and later he would use a snow machine. By boat the trip

could take 4 hours to go from Kwethluk to the parcel with a light load. With a heavy load, the trip could be 6-8 hours.”

Mr. Andrew stated that he spent two to three weeks on the parcel. On his way back from camp, he collected firewood down river from his father’s parcel and towed it back to Kwethluk on a raft.<sup>170</sup> In a Decision to Approve the Native allotment, the BLM wrote on April 17, 2008, that “Mr. Andrew accesses the parcel by boat in the summer and fall and by snow machine in the winter.”<sup>171</sup>

Three Native allotments are located along the Kwethluk River from river mile 75.0 to river mile 75.8. There is no indication in these three allotment files how the allottees accessed their parcels when the river was not frozen, but John Andrew is on record as stating that that one can boat up the Kwethluk River as far as river mile 75 during June and July.<sup>172</sup> (Attachment 24)

Anesia Nick of Kwethluk filed an application in November 1970 for a 119-acre Native allotment (FF-17070-B) in Secs. 5-6, T. 2 N., R. 67 W. and Secs. 31-32, T. 3 N., R. 67 W., SM on the left bank of the Kwethluk River at river mile 75.0. Mrs. Nick began using the parcel in May 1962. She claimed use for hunting from September to December and for trapping from November to April.<sup>173</sup> While in the area, she stayed at a sod house on an adjoining parcel (FF-17071) claimed by her son Timothy Nick.<sup>174</sup>

Timothy Nick (deceased) of Kwethluk filed an application in November 1970 for a 160-acre Native allotment (FF-17071) in Sec. 5, T. 2 N., R. 67 W., and Sec. 32, T. 3 N., R. 67 W., SM on the left bank of the Kwethluk River at river mile 75.5. He began using the parcel in 1944 “for subsistence use” from August through December each year for fishing and hunting. “I was ten years old when I first went to our fall camp to hunt squirrels. I have gone there every fall when I was able to.” He kept six dogs at the parcel during his visits. He camped in a tent until 1969, when he built a sod house.<sup>175</sup> Timothy Nick was deceased in 1974, when the BLM inspected the parcel. His son David accompanied the reality specialist and stated that he went with his father to the parcel on several occasions.<sup>176</sup>

Yako Harp (deceased) of Kwethluk filed an application in November 1971 for a 160-acre Native allotment (FF-17065) in Secs. 5 and 8, T. 2 N., R. 67 W., SM on the left bank (south side) of the Kwethluk River at river mile 75.8. Mr. Harp was born in 1933 and died in 1982. He began using the parcel in 1966 from October through December. He stated in his application that he used the land “mostly for fall camping, hunting, fishing, trapping and berry picking.” Improvements included a sod house and steam bath hut, built in 1966. He kept seven sled dogs on the site when he was there.<sup>177</sup> During the field inspection in August 1974, Mr. Harp stated that he hunted moose and trapped beaver and mink in the area. He also helped his neighbor, Timothy Nick, build the sod house and sauna which are on Mr. Nick’s adjoining parcel (FF-17071).<sup>178</sup>

Nicolai O. Michael of Kwethluk, who died in 1989, filed an application in November 1970 for a 160-acre Native allotment (FF-20475) in Secs. 28 and 32-33, T. 3 N., R. 66 W., SM. This allotment straddles the Kwethluk River at river mile 85.5. Mr. Michael began use and occupancy of the parcel in 1920 from April 10<sup>th</sup> through June 10<sup>th</sup> to trap spring squirrels. On his application, he indicated that he also used the land from August 15<sup>th</sup> to September 15<sup>th</sup> for hunting, fall squirrel trapping and berry picking. He added that “we hunt moose in fall and winter for our table meat also to make dried meat (jerky). In spring, we hunt grisly bears with our menfolks. We hunt foxes, wolverine, mink, otter and ermines.”<sup>179</sup> Although there is no mention in the Native allotment file of his descending the river in a skin boat, these spring hunting and trapping activities were closely associated with skin boat use on the river during the 1920s and 1930s. He and others with nearby allotments stated that they traveled to their parcels by dogsled in the winter. He picked berries on his parcel in the fall.<sup>180</sup> (Attachment 16) Michael stated that hunting and trapping were the main activities on the parcel, which he called *Koignaiogpak* (meaning Big Valley or Big Creek).<sup>181</sup> During the BLM field visit, he stated that he did not use the land during 1940, when he worked in a store for one winter, and during the last 15 years because of his duties as a Russian Orthodox priest in the Telida-Napaskiak area.<sup>182</sup>

John W. Andrew of Bethel stated in an interview in 1998 that there are sweepers along the Kwethluk River between Elbow Mountain (river mile 75) and his parents’ allotments at river mile 121 (FF-17051-A) and river mile 125.5 (FF-19255). He said local Natives boating the river clear the sweepers with chainsaws. There are also good size boulders above Elbow Mountain and Crooked Creek (river mile 110). He stated that high water conditions occur after the spring ice melt from the end of May to the 1<sup>st</sup> of June for two to three weeks and also after the fall rain beginning in August for three or four weeks depending on the rainy season. One time, the high water lasted during August and September.<sup>183</sup> (Attachment 31) According to John Andrew of Kwethluk, one can boat past Elbow Mountain only during high water conditions which occur after spring melt and fall rains, but it is only deep during those times for two to four weeks.<sup>184</sup> (Attachment 25)

Six of the eight Native allotments located on the upper Kwethluk River between river miles 121 and 134.5 are associated historically with spring hunting and descent of the river in skin boats. According to Willie Andrew of Kwethluk, local people chose their allotments on the upper Kwethluk River between river miles 120 and 135 because that is where they traditionally had their spring camps.<sup>185</sup> (Attachment 30 and Attachment 24) A few Kwethluk residents had taken boats with outboard motors up the Kwethluk River to Crooked Creek (river mile 110) and Breast Mountain (river mile 120) prior to statehood. Willie Andrew had not been up to Crooked Creek or Breast Mountain since he was a little boy, as he thought that the river was too shallow to reach this area and there are places that have a strong current. He stated that since 1990, local people have used jet outboards to access their allotments between river miles 120 and 135 because the river is too shallow for propeller driven boats.<sup>186</sup> (Attachment 30 and Attachment 24) According to Alexander Nicori, some people are able to get up to Breast Mountain with

jet boats in June and July.<sup>187</sup> (Attachment 30) People from Bethel, he added, use jet boats near the end of August and into September to hunt moose and caribou around Crooked Creek (river mile 110). Nicori stated that the allottees in the area between river mile 120 and river mile 135 and their families now fly in and fly out in the fall when they go to subsistence hunt.<sup>188</sup> (Attachment 25)

Anna Z. Andrew of Kwethluk filed an application in November 1970 for an 80-acre Native allotment (FF-17051-A) in Secs. 23 and 24, T. 1 N., R. 63 W., SM, on the south bank of the Kwethluk River at river mile 121.0, near Breast Mountain. She began using the parcel in 1955 each year from April to June for trapping, fishing and spring squirrel hunting, and from July to September for trapping berry picking and fall squirreling. In the spring, the family kept nine sled dogs at the site, which included tent frames, traps, snares, and a stove. “Every spring,” Mrs. Andrew wrote in her application for the parcel,

we go to our spring camp to hunt and trap squirrels. This is at *Angyetlik*. At this time we pick moss berries and cranberries which we use for *agutak* (Eskimo ice cream). We also fish for trout at the lakes and the creeks. We also hunt the squirrels at the fall time, some time we pick moss berries and cranberries.<sup>189</sup>

When a BLM realty specialist inspected the parcel in July 1974, most of the land was flooded by beaver dams. An old sled was visible on the south bank of the Kwethluk River.<sup>190</sup> John Owen, a Kwethluk resident, stated in an interview in January 1998 that local people boat to Anna Z. Andrew’s allotment by jet units.<sup>191</sup> (Attachment 31)

Wassillie Andrew of Kwethluk filed an application in November 1970 for a 160-acre Native allotment (FF-19255) in Secs. 28-29 and 32-33, T. 1 N., R. 62 W., SM, on the right bank (east side) of the Kwethluk River at river mile 125.5. Andrew, who was born in 1912 and died in 1996, began using the parcel in 1955 from April 5<sup>th</sup> to September 15<sup>th</sup> for trapping, hunting and picking berries. While hunting in the area, Andrew kept nine sled dogs at his campsite. He also trapped furbearing animals, and in the summer fished in the river and picked moss berries, blueberries and cranberries with his family in the summer. In his application, he wrote:

In spring, I go to *Elutukachuk* with my family to go squirrel hunting. At First I hunt moose because we need the hides to make skin boat to take us down the rapids. None of the meat is wasted. We dry the meat into jurkies [sic] and the bones are used for soup bones for our dogs. I also hunt grizzly bears because sometimes we use the hides for the skin boats when we don’t have enough moose hides.<sup>192</sup>

During the field inspection of the parcel in July 1974, Andrew told a BLM realty specialist that the family used to travel to the lands in spring by dog sled. Andrew indicated that in recent years his family traveled by snowmachine in the winter time. While they camped on these lands, according to the field report, Andrew said “they



hunted moose, bear, parka squirrels and trapped furbearing animals. Traditionally a moose skin was used to cover a boat frame (Figure 23) for returning to the village after breakup. However, Andrew said that synthetic materials (plastics) are now frequently used.”<sup>193</sup>



**Figure 23. Kwethluk elders watch Joe Spein put the last floor board on a large skin boat frame, 1989, upper Kwethluk River. Photo from <http://www.yupikscience.org/4riverspring/4-1.html>.**

Alfred Evan of Kwethluk, who was born in 1922 and died in 1974, filed an application in November 1970 for an 80-acre Native allotment parcel (FF-19257-B) in Secs. 32 and 33, T. 1 N., R. 62 W., SM, on the east side of the Kwethluk River at river mile 126.0. Evan began using the parcel in 1955 as his spring camp from April 10 to June 1<sup>st</sup> to hunt parka squirrels, moose, grizzly bear, fox, wolverines and ptarmigan, and to pick moss berries and cranberries. He called the site *Elutukachak*.<sup>194</sup> During a field visit to the allotment parcel in 1974, a BLM realty specialist found remnants of a tent camp, including drying racks, tent stakes and an old sled. John Andrew, who accompanied the BLM examiner, stated that Kwethluk families originally traveled to these lands in the late winter by dog sled, but now came by snowmachine. They used to hunt for moose so that the skins could be used for making boats to take them back to Kwethluk by river (Figure 24). Andrew said that in recent years, villagers rely more on synthetic materials in place of the

moose skins. The area around the allotment, he said, was very good for hunting parka squirrels and he had hunted bear in the area.<sup>195</sup>



**Figure 24. Kwethluk hunters at their hunting camp on the upper Kwethluk River in 1988 sewing hides together to be stretched over the frame of a bear skin boat. Photo by John W. Andrew, reprinted from *Alaska Fish and Game*, November-December 1989, Vol. 21, No. 6, p. 13.**

Evan Kopuk of Kwethluk, who was born in 1900 and died in 1993, filed an application in November 1970, for a 160-acre Native allotment (FF-19261) in Sec. 7 and 16, T. 1 S., R. 62 W., and Secs. 12 and 13, T. 1 S., R. 63 W., SM, on the east side of the Kwethluk River at river mile 132. Kopuk began using the parcel in 1954 from February 1<sup>st</sup> to September 30 for hunting, trapping and fishing. He hunted and trapped beaver and wolverines.<sup>196</sup> Kopuk claimed use of a tent camp at the site, but the BLM realty specialist who visited the site in July 1974 did not find evidence of a camp site.<sup>197</sup>

John A. Andrew of Kwethluk filed an application in November 1970 for a 119-acre Native allotment (FF-12953-A) in Sec. 7, T. 1 S., R. 62 W., SM. The parcel is on the east side of the Kwethluk River at river mile 132.5. Andrew began using the parcel in 1947

each February and March as his headquarters for hunting and trapping.<sup>198</sup> A BLM realty specialist visited the parcel in July 1974 and found a camp site including a tent frame.<sup>199</sup>

Adam Andrew (deceased) of Kwethluk filed an application in November 1970 for a Native allotment (AA-8287) in Secs. 7 and 8, T. 1 S., R. 62 W., SM, on the east side of the Kwethluk River at river mile 133.0). Andrew began using the parcel in 1930 each February and March for hunting and trapping beaver, mink, otter, wolverines and foxes. He took his son with him and stayed in a tent.<sup>200</sup> A BLM realty specialist found no evidence of a camp site during a field visit to the parcel in July 1974.<sup>201</sup>

Wassille Evan of Kwethluk filed an application in November 1970 for a 160-acre Native allotment (AA-8289) in Secs. 17-20, T. 1 S., R. 62 W., SM, on the east side of the Kwethluk River at river mile 134.0. Evan began using the parcel in 1967 each February and March for “seasonal use for subsistence purposes” to hunt and trap, specifically to trap beaver.<sup>202</sup> He claimed that he used a tent frame while camped on the parcel, but a BLM realty specialist found no evidence of a camp site during a field inspection in July 1974.<sup>203</sup> Bethel resident John W. Andrew told a BLM navigable waters specialist that Wassillie Evan has boated at least three times to the spring camps located in the vicinity of river mile 125 to river mile 134.<sup>204</sup> (Attachment 31)

Lola K. Evan of Kwethluk filed an application in November 1970 for a 160-acre Native allotment (AA-8288) in Secs. 19, T. 1 S., R. 62 W., SM, on the east side of the Kwethluk River at river mile 134.5. Evan began using the parcel in 1960 from September 3<sup>rd</sup> to October 1st for “for subsistence purposes” to hunt, trap and fish.<sup>205</sup> She used a tent frame while camped on the parcel, but it was not located during a BLM field inspection in July 1974.<sup>206</sup> In a letter dated March 20, 2000, an ADF&G employee wrote that the allotment area “has historically been used by subsistence harvesters (hunting moose, caribou, small game, fur bearers, and berry picking) and sport fishers,” but ADF&G had found no records documenting specific use predating the allottee’s application.<sup>207</sup>

Native use of skin boats to descend the river from the area of traditional spring hunting grounds on the upper Kwethluk River has continued at least through the early 1990s. In an interview with a BLM employee in March 1998, Alexander Nicori of Kwethluk stated that the spring of 1988 was the last time he was at the spring camps of Anna Z. Andrew (river mile 121), Wassillie Andrew (river mile 125.5), Evan Kopuk (river mile 132.0), Evan Wassillie (river mile 134.0), and Lola Evan (river mile 134.5). Nicori traveled to the area by snow machine, and then drifted down the Kwethluk River by skin boat sometime near May 23<sup>rd</sup> (Figure 25). The last time he recalled anyone floating the Kwethluk River in a skin boat was in 1993 or 1994. The party traveled by snowmachine to the spring camps and after hunting and trapping, they drifted downstream in a wooden-framed boat covered with skins. The boats were about 17 feet long, 15 feet wide and had an oval shape (Figure 26). They stored their snowmachines on solid ground, safe from rising water. In early January of the following year, the young men of the village went back up to the area and picked up the snowmachines.<sup>208</sup> (Attachment 31)





**Figure 25.** A woman and child in a loaded bear skin boat on the Kwethluk River, 1988. The shallow draft boat is loaded with dried meat, squirrel skins and camping equipment for the 90 mile float to Kwethluk. Photo by John W. Andrew, reprinted from *Alaska Fish and Game*, November-December 1989, Vol. 21, No. 6, p. 13.



**Figure 26.** A skin boat built in 2007 on the upper Kwethluk River. Photo from <http://www.yupi9kscience.org/4rivrsspring/4-1.html>



### *Other Natives Traveling on the Kwethluk River*

There is abundant evidence of use of the Kwethluk River by Natives in BLM ANCSA files. BLM employees interviewed Natives from Kwethluk and Bethel who have traveled the Kwethluk River and its tributaries by boat since 1959. ADF&G subsistence reports, which are based on interviews of villagers in Kwethluk and Akiachak, also contain extensive information on use of the Kwethluk River since statehood. Many of those interviewed do not have Native allotments along the Kwethluk River. They are related to or are friends of allotment holders along the river and have used the Kwethluk River for subsistence purposes over the years. Residents of Kwethluk, Bethel and Akiachak use waterways throughout the region as primary access routes to harvest areas during periods of open water (mid-May through mid-October). Some headwater tributaries are accessible by boat only during periods of high water during spring and fall, while other areas are accessible only during winter by snowmachine.

Villagers from Kwethluk are the most frequent users of the Kwethluk River due to their proximity to the waterbody. According to a subsistence study focusing on the late 1980s, Kwethluk residents use a wide variety of boats for many purposes. Boats functioned as multiple use vehicles for most families for fishing, moose hunting, wood gathering, or basic transportation between Kwethluk and their fish camps or the uplands. They used a variety of boat designs, construction materials, and dimensions. Boats that were used for subsistence salmon fishing ranged in length from 16 to 24 feet and 58 percent were 20 feet or more in length. The majority (86 percent) of the boats 20 feet or longer were wooden and overall 56 percent of the boats were made of wood. The remaining boats, including almost all 18 feet or less in length, were aluminum. Most wooden boats were built by individuals, often assisted by others who were experienced boat builders. Wooden boats were constructed from plywood and lumber purchased from the Kwethluk Native Store or from Swanson's in Bethel. Some boats had plywood sides and bottoms; some had plywood sides and wooden plank bottoms; others had plank sides and plank bottoms. Aluminum boats of welded or riveted construction were usually purchased from stores in Bethel, Kwethluk, or one of the surrounding communities. Locally constructed wood boats cost less than an aluminum boat of comparable size. Residents reported that wooden boats lasted between four and ten years. Aluminum boats required a higher capital investment, but last up to 20 years. In addition to their longer life, aluminum boats were relatively maintenance free. Purchasers of aluminum boats had a limited selection, in terms of boat length, width and depth, to choose from. Homemade wooden boats offered the owner more flexibility in design and various combinations of length, width and depth. When repairs were necessary, wooden boats were repaired in Kwethluk. Repairs to aluminum boats, such as welding, had to be done in Bethel or some place having specialized equipment.”<sup>209</sup>

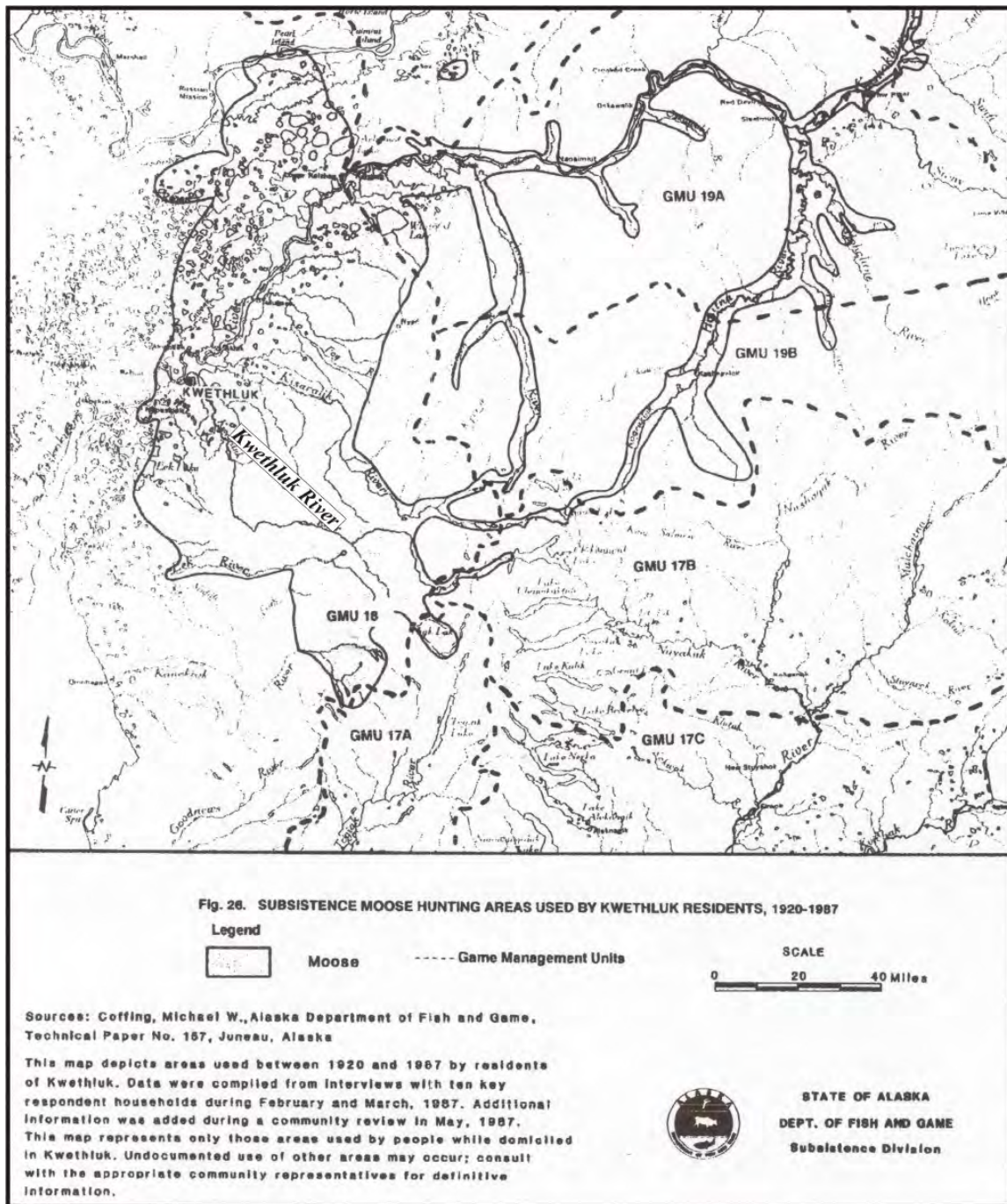
The sizes of outboard motors Kwethluk residents used varied depending on the size of the boat. Households having salmon fishing camps used outboard motors ranging in size from 10 to 115 horsepower. Thirty-two percent of the motors were 30 horsepower or

smaller, 24 percent ranged between 31 and 66 horsepower, and 40 percent ranged between 66 and 100 horsepower. There were only four motors of 100 horsepower or greater. The most popular sized motors were 25, 40 and 70 horsepower. Kwethluk residents reported that outboard motors usually lasted from one to ten years. On the average, motors were expected to last approximately four years.<sup>210</sup>

In late March or early April, a few Kwethluk families fly in airplanes to traditional camps in the mountains, near the headwaters of the Kwethluk, Kisaralik, Aniak and Nushagak rivers. There they fish, hunt, and trap for a few weeks, harvesting lake trout, Dolly Varden, grayling, brown bear, caribou, moose, beaver, otter, muskrat, ptarmigan, porcupine, and parka squirrels. Men and women from several different households usually make this trip. Men hunt the surrounding countryside on foot, looking for caribou, brown bear, moose and furbearers, while women concentrate on harvesting parka squirrels and small game. Meat from the harvest is dried into jerky and it is prepared and eaten in camp. People often remain in the field for a few weeks, returning to Kwethluk as breakup proceeds. Boats like those made by previous generations of Kwethluk hunters are made from materials gathered from the land. A boat frame, consisting of planks and ribs made of balsam poplar, is covered with un-tanned hides of brown bear, caribou, or moose, often sewn together in combination.<sup>211</sup> These boats are used to transport the people, camping gear, dried meat and other items obtained from subsistence hunting, fishing, and gathering activities, back to Kwethluk by floating down the Kwethluk River. One of these skin boats, built in 1987, measured approximately 14 feet long, 8 feet wide and was 20 inches deep amidship.<sup>212</sup>

The core caribou hunting areas used by Kwethluk hunters lies at the headwaters of the Kwethluk, Kisaralik, Kasigluk, Akulikutak and Aniak rivers (Figure 27). During the 1980s, caribou were harvested from mid-August through mid-May. Families traveled to hunting camps located in the upper Kwethluk and Kisaralik river valleys in April and August. From these camps they harvested a variety of wild resources, including caribou. “In spring, hunters at mountain camps sometimes returned to Kwethluk using skin boats which they built using hides of caribou, brown bear, or moose,” according to ADF&G Subsistence specialist Mike Coffing. “This mode of transportation, which has been used by people hunting in the mountains for many years, was still sometimes used in spring from 1986 to 1991. Between one to three skin boats were built each year, however, some years skin boats were not used.” Caribou, which are hunted in the mountains, are generally not available to hunters using outboard boats along rivers such as the Kwethluk, Kisaralik, and Kasigluk.<sup>213</sup>

Men sometimes pulled small aluminum boats 12 to 16 feet long up the frozen Kwethluk River in the spring, using snowmachines or all-terrain vehicles, to areas where there are open channels and enough water to use them. As the Kwethluk River melts, narrow channels of open water appear along its edge, permitting hunters in small boats with outboard motors to travel to spring camps and hunting areas along the Kwethluk and Akulikutak rivers. During spring breakup, much of the surrounding lowland floods and becomes accessible by small boats. This is a good time for muskrat hunting.<sup>214</sup>



**Figure 27. Map showing subsistence moose hunting areas used by Kwethluk residents, 1920-1987. Reprinted from Coffing, *Kwethluk Subsistence*, p. 147.**

Because the Kwethluk River is free of ice before the Kuskokwim River, families having camps along the Kwethluk River were generally able to travel to camp to begin preparing for the upcoming fishing season as early as mid-May. The majority of fish camps were located within eight river miles of Kwethluk village. The fishing camp furthest from the

village was located 14 river miles from the community along the Akulikutak River. A boat was necessary for accessing most of the camps from Kwethluk. Some fish camps occupied during 1986 had been in use consistently for several years, some longer than 50 years. Starting in the late 1950s, there has been a shift of camps, from along the main Kuskokwim River and Kuskokuak Slough, to along the Kwethluk River. The primary reason for the shift was erosion, but the desire to be close to other families and nearer to Kwethluk for work or health related factors was another reason.<sup>215</sup>

During June and July, Kwethluk villagers used boats to travel up the Kwethluk, Akulikutak and Kisaralik rivers to harvest salmon, grayling, rainbow trout, Dolly Varden and Northern pike using rod-and reel gear as far upriver as river mile 135. Kwethluk residents used set nets in the Kwethluk and Akulikutak rivers to harvest whitefish through much of September and into October.<sup>216</sup>

In mid-July, people began to travel by river to berry picking areas to harvest salmon-berries and blueberries. Primary berry picking areas for Kwethluk residents included along the Kwethluk, Akulikutak and other drainages. The locals accessed the berry picking areas by boat and on foot. Families that were unable to harvest enough berries sometimes bought berries from other people.<sup>217</sup>

In late August, hunters began traveling by boat to moose hunting areas on the Kwethluk and other rivers. Other resources harvested during these trips included black and brown bear, beaver, muskrat, otter, ruffed and spruce grouse, ducks, cranes, geese, salmon, several species of freshwater fish, berries, and wood. Some hunters made several trips, while others stay out until the first of October.<sup>218</sup> Kwethluk elders recalled first seeing moose in the upper reaches of the Kwethluk River and other nearby drainages during the mid-1930s. As encounters with moose increased during the 1950s through the 1970s, hunters harvested them opportunistically from mid-August through April. Hunters at spring mountain camps would sometimes harvest animals during late May and early June, using the animal skins when building a skin covered boat, bringing the meat back with them to Kwethluk as they floated home on the Kwethluk River.<sup>219</sup>

Kwethluk hunters in the fall traveled up and down tributaries of the Kwethluk River by boat, looking for moose while other hunters were situated at a site where they monitored a particular meadow or scanned the adjacent countryside. Camps were often situated strategically along the rivers where there was good visibility allowing hunters to scan up and down the river. In this way, moose could be easily spotted as they approached the river or swam across it. During the September hunt, most of the moose were harvested relatively close to a river, tributary, slough or lake. The closer to the hunter's boat an animal was killed, the less work required to pack the animal out. Boats were the most common means of transporting the moose back to Kwethluk. Upon returning to the village, it was common for hunters to share portions of the Moose by distributing portions of the meat to other households. "Virtually all of the households which harvested moose in 1985-86," according to subsistence specialist Michael Coffing, "gave meat to other households in the community."<sup>220</sup>



Kwethluk residents also depended on the Akulikutak River, one of the major tributaries of the Kwethluk, to reach hunting, fishing and berry picking areas and to gather wood. Kwethluk residents boated up the Kwethluk River to river mile 13 and then up the Akulikutak River near the end of August when that river was five to six feet deep. This condition usually lasted between two and four weeks. They also used the Akulikutak River during the spring when ice dams on the Kuskokwim caused the Akulikutak to rise for three to four weeks. Most of those interviewed by the BLM were able to boat to the north of Three Step Mountain in Sec. 21, T. 6 N., R. 67 W., SM, more than 32 miles up the Akulikutak River. These residents used 18 to 24-foot boats with 40 to 50-horsepower propeller motors.<sup>221</sup> (Attachment 32) Kwethluk residents also traveled the 13 miles up the Kwethluk River, then up the Akulikutak and Kushluk rivers to reach berry picking, hunting and trapping and fishing grounds. Madrona Helmick, for example, has a Native allotment (F-17072-C) at river mile 6 of the Kushluk River. These Kwethluk residents used 18-foot Lund boats with 30 to 45 horsepower outboard motors to ascend the Kwethluk, Akulikutak and Kushluk rivers as far up as Sec. 3, T. 7 N., R. 68 W. SM, four miles upstream of Madrona Helmick's allotment.<sup>222</sup> (Attachment 32)

Resources harvested for subsistence were shared widely by the Kwethluk villagers. They shared them within the community as well as with other households in other communities such as Bethel, Napaskiak, Togiak, Kasigluk, Akiak, Kwigillingok, Akiachak, Kipnuk, Eek, Napakiak, Chuathbaluk, Tuntutuliak, Goodnews Bay, Tuluksak, Hooper Bay, Fairbanks and Barrow. Sharing food with friends and strangers is as common as a "hello" or handshake in western culture. Friends and relatives commonly and frequently shared meals at one another's house or fishing camp. Resources such as fish, game, birds, plants, and berries were also given to those who were unable to harvest for themselves or perhaps "had no luck" when out hunting. This included sharing with the elderly and widows, but resources were also commonly given and received between other types of households, especially those who were related.<sup>223</sup>

Specific examples of travel by boat on the Kwethluk River are found in interviews conducted by BLM employees. During the 1970s and 1980s, Alexander Nicori of Kwethluk traveled with his friends every weekend in July up the Kwethluk River with a 17-foot wooden boat with a 30-horsepower Mariner outboard motor. They did not reach as far as Elbow Mountain (river mile 75). Nicori said that after the fall rains, the river can vary in depth from 1.5 to 12 feet. The 12-foot depth is around deep holes. He said people from Bethel use jet boats near the end of August and into September to hunt moose and caribou around Crooked Creek (river mile 110) and sport fish. Nicori traveled the river in the spring of 1988, when the water was unusually low. He estimated the Kwethluk River to be about 30-45 feet wide and 60 feet wide in shallow places between Breast Mountain (river mile 120) and Elbow Mountain (river mile 75). Impediments included gravel bars and shallow areas above Three Step Mountain (river mile 50).<sup>224</sup> (Attachment 31)

John Owen of Kwethluk boated to Greenstone Ridge (river mile 100) in about 1989. He had no reason to go further up river.<sup>225</sup> (Attachment 31) Another Kwethluk resident,

Richard Long, told a BLM employee that he doesn't like to boat the Kwethluk and Akulikutak rivers because the channel changes every year, especially above Three Step and Elbow mountains. The last time he boated up the Kwethluk River above Breast Mountain (river mile 117) was in the beginning of September 1989. He used an 18-foot Lund with a 40-horsepower propeller motor. The boat carried three people and their camping gear, which he estimated at 400-500 pounds. They stayed in the area for a week. He said the river was about 100 feet wide from bank to bank above Elbow Mountain to Breast Mountain. He didn't recall too many boulders in the river.<sup>226</sup> (Attachment 31)

In an interview with the BLM on March 18, 1998, Max Angellan of Kwethluk stated that he uses a 20-foot 2020 Yukon Lund boat with a 40-horsepower jet drive to travel to the upper Kwethluk River. The last time he boated the river was two years earlier, in 1996, between late August and early September. He stated that he only boats up to the area of Breast Mountain (river mile 117) during high water conditions which last from mid-May to the end of May and from mid-August to the end of August. There is not enough water in the river to boat that far up in June and July, he said. His load when he went up the river included three people, two drums of gas or about 110 gallons of gas and camping gear. They stayed about 4-5 days and climbed Breast Mountain.<sup>227</sup> (Attachments 31 and 25)

According to John Andrew, a Bethel resident who has traveled extensively on the Kwethluk River, the river used to be deeper than it was in the late 1990s. An increase in beaver population and the decreasing snow pack in the mountains have resulted in the Kwethluk River being much lower than it used to be. He said that one can reach Elbow Mountain (river mile 75) by boat during June and July, but after that it would be too shallow. He said it would be hard to drag a boat against the current and it would ruin the propeller.<sup>228</sup> (Attachment 31) Andrew, who works for the USFWS in Bethel, and Mike Coffing, who works for ADF&G in Bethel, boated up the Kwethluk River near the end of August or September 1995 or 1996 to hunt caribou and moose. Andrew, his mother Anna Z. Andrew and his father, Wassillie J. Andrew, all had allotments near Breast Mountain (river mile 120). Andrews used a 20-foot aluminum Lund with a 40-horsepower Yamaha propeller motor during the trip in 1995 or 1996. His load included one other person, 60 gallons of gas and camping gear. They camped at the mouth of a small creek near Greenstone Ridge, which is just below the mouth of Crooked Creek. The river was between 10-12 feet deep. They shot two bull caribou and then boated up to Crooked Creek. They turned around because the creek became too shallow, there were too many large boulders that could ruin the propeller, there were too many gravel bars and they were running out of time.<sup>229</sup> (Attachment 31)

Akiachak residents, who often travel great distances to harvest large game during the fall and early spring, use boats to ascend the Kwethluk River to reach the mountains where they continue their quest on foot.<sup>230</sup> During 1988, five percent of Akiachak villagers reported hunting and taking 19 caribou in the Kwethluk River and Akulikutak drainages. "Extreme low water during the fall season can make access to portions of some of these

rivers and associated tributaries difficult,” the authors of a subsistence study of the village wrote. Akiachak hunters

are especially adept at finding their way around or over shallow areas. High water does not necessarily make travel up these rivers any easier, as the rivers are swift, divided into several channels and are strewn with sweepers and hidden obstacles.<sup>231</sup>

Caribou meat harvested in the fall was cut in the field into large pieces. Once the surface was dry, the meat was packed in the boat and taken home. Akiachak residents hunted black bear mainly in August and September while hunting for moose along riparian corridors of rivers and streams accessible by boat. They hunted the Kwethluk River as far upstream as Elbow Mountain (river mile 75) in the years 1988-1997.<sup>232</sup> (Figure 28)

#### *Government Studies and Use of the Kwethluk River since 1959*

State and federal employees began gathering data and traveling on the Kwethluk River by boat in the mid-1970s. In a Navigability Field Report, dated November 4, 1975, Wayne R. Dawson of the BLM observed that the Kwethluk River had “heavy” use through the months of May through October from its mouth at the Kuskokwim River (river mile 0) upstream to the Kilbuck Mountains (river mile 125). Dawson wrote that “outboard motor boats” were used on the river for “subsistence” and “recreational” activities, and that in the future the river could “provide access to public lands.”<sup>233</sup> (Attachment 34)

The number of water craft using the Kwethluk River the mid-1970s was significant enough that the BLM proposed in October 1976 to create a continuous streamside easement (2 L) on the streambed and both shores of the Kwethluk from river mile 3 upstream to river mile 47.5, and a campsite easement on the left bank of the river and a 25-foot site easement below the mean high water mark adjacent to the campsite (11 C4). These easements were deemed necessary because “the Kwethluk River has significant public use and provides access to public lands.”<sup>234</sup> (Attachment 1)

ADF&G biologists surveyed the Kwethluk River for fish habitat by boat in 1976, examining the lower 62 miles in early June and the lower 72 miles in August. The biologists concluded that “the river is considerably easier to travel than the Kisaralik as the channels and water are deeper and the current slower with fewer log jams.”<sup>235</sup> In 1977, ADF&G biologists wrote that the Kwethluk River received the heaviest fishing pressure of the lower Kuskokwim streams. Rainbow trout was the main sport species, but char, grayling and silver salmon were also sought. The biologists observed 18 fishermen in seven boats during one weekend in the area between river miles 50 and 86.<sup>236</sup> Lew Reece of Bethel wrote to the BLM on May 5, 1976, that many people fished for grayling, rainbow and Dolly Varden trout in the Kwethluk, as it was only a four hour distance by boat from Bethel. He had traveled to the river, which he described as a “nice stream with some fast water.”<sup>237</sup> (Attachment 35)



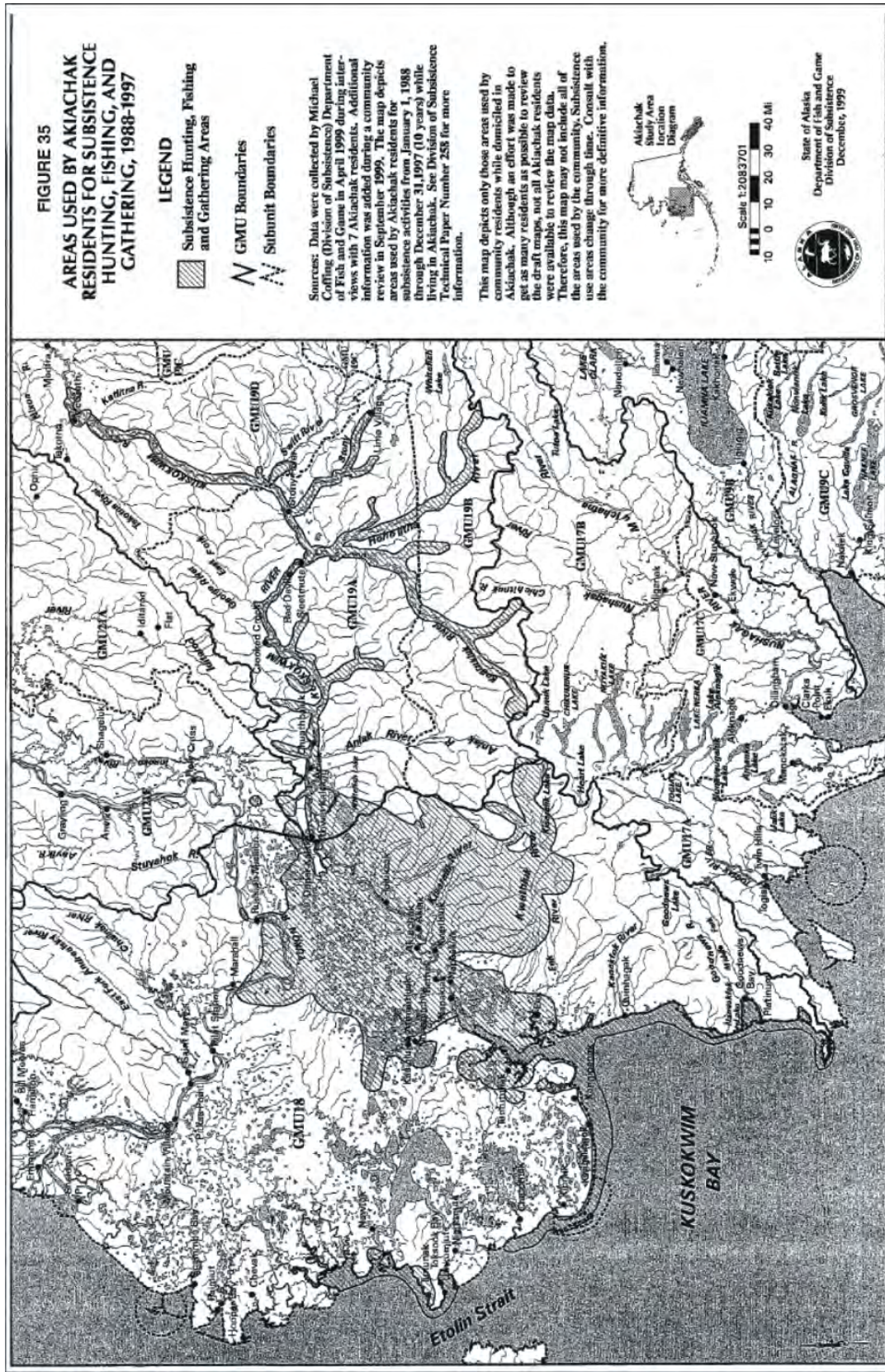


Figure 28. Areas used by Akiachak residents for subsistence hunting, fishing, and gathering, 1988-1997. Reproduced from Coffing, Brown, Jennings and Utermohle, *Subsistence Harvest and Use of Wild Resources in Akiachak, Alaska 1998* (2001), p. 157.



In 1978-1979, BLM employees made a number of observations about use of the Kwethluk River. In an easements memorandum dated September 22, 1978, BLM State Director Curtis McVee wrote that “the Kwethluk River is very popular with sports fishermen for grayling, rainbow, and Dolly Varden.” The river, according to the memorandum,

also provides a waterway access route across a strip of Native selected lands to public lands and resources. Based on the topographical geography of the area, the water route is the most practical access route to public lands and resources. This easement is needed because of its significant recreational value and to facilitate travel between public lands and resources.<sup>238</sup>  
(Attachment 36)

Following a reconnaissance over flight of the upper half of the Kwethluk River, a BLM official wrote in October 1978 that the river appeared to be “floatable,” but he noted statements made by his pilot to the effect that the pilot knew of no one who had floated down or landed a float plane on the river or on the lake at its head.<sup>239</sup> In its final easements memorandum for the Kwethluk River, dated October 1978, the BLM wrote:

the Kwethluk River receives recreational use for boating and fishing.... Being near Bethel, the river gets a lot of use from both sport fishermen and subsistence fishermen.... This easement [providing a streamside and bed easement] will provide shore space for the continued utilization of this water way.”<sup>240</sup> (Attachment 2)

The BLM included a 25-foot wide streamside easement along the uplands and an easement along the entire bed of the Kwethluk River from Sec. 4, T. 8 N., R. 69 W. (river mile 2), to Sec. 1, T. 5 N., R. 68 W., SM (river mile 47), and a camp site easement in Sec. 10, T. 6 N., R. 68 W., SM (river mile 36), in its March 7, 1979, DIC to Kwethluk, Incorporated (Attachment 5). The same easements were included in IC No. 213 and IC No. 214 of July 20, 1979. (Attachment 6) The agency explained in all three of these documents that the purpose of the easements “is to provide for public use of waters having highly significant present recreational use.”<sup>241</sup>

Knik Construction Company, working under contract with the Alaska Department of Transportation and Public Facilities, delivered three barge loads of gravel to Kwethluk village during the summer of 1981. The company used a tug boat to pull a 2,000-ton barge (measuring 40 feet by 100 feet) from Bethel along the Kuskokwim River and Kuskokuak Sough, and up the Kwethluk River to Kwethluk village.<sup>242</sup> (Attachment 37)

During 1991, BLM surveyors working along the Kwethluk River reported that local residents were using motor boats to travel up the river to the vicinity of T. 4 N., R. 68 W., SM (river mile 65). This prompted the BLM Deputy State Director for Conveyance Management, Wayne R. Boden, to request a determination identifying navigable waters along the Kwethluk River. Boden noted in a memorandum dated November 6, 1991, that

the BLM had already determined the Kwethluk navigable “through T. 7 N., R. 69 W., and upstream to T. 3 N., R. 66 W., SM” (river mile 65). Boden added that he had talked to four experienced individuals who had indicated that the river was “suitable for canoes and small jet boats” even farther upstream. Tim Quincy, a BLM cadastral surveyor, and his survey crews traveled up the river in 1991 in a 13-foot inflatable raft with a 35-horsepower motor. They used the raft to go from their base camp near Kwethluk Village to Native allotments in T. 4 N., R. 68 W., SM (river mile 65). Quincy added that the river was definitely navigable up to and beyond Nicolai Michael’s Native allotment (FF-20475) in T. 3 N., R. 66 W., SM (river mile 85.5) with a large canoe. Fabio Ferruzzi of the BLM’s Navigability Section contacted several people who claimed that the Kwethluk River was navigable beyond the Native allotments in Secs. 32-33, T. 3 N., R. 66 W., SM (river mile 83). Joe Labay, the BLM reality specialist who was the field examiner for Nicolai Michael’s Native allotment, told Ferruzzi that the river was definitely navigable with a canoe and possibly with a small outboard motor boat to the Michael’s parcel. He said there were no obstacles to travel up to the parcel (river mile 85.5) and beyond. Charles Burkey of ADF&G in Bethel indicated that the river can be navigated with a jet boat or a large canoe up to the vicinity of Canyon [Crooked] Creek in T. 1 N., R. 62 W., SM (river mile 110). Ferruzzi added that there were no obstacles to travel on the river. Gene Pelpola of USF&WS in Bethel also stated that the river is navigable for a flat-bottomed or jet boat up to Crooked Creek (river mile 110) in T. 2 N. R. 63 W., SM.<sup>243</sup> (Attachment 17)

BLM Navigable Waters Specialist Laura Lagstrom collected information on the Kwethluk River in the late 1990s. After she flew over two of the river’s tributaries during September 1997, she noted that the Akulikutak River “is wide and free of any obstructions” through Sec. 13, T. 7 N., R. 68 W., SM and “appeared to be deep enough for navigation.” On the same day, Lagstrom flew over Net Creek, which “appeared to have sufficient water for navigation” and “continued to be open and free of any obstructions all the way to its exit into the Kwethluk River.”<sup>244</sup> (Attachment 37) Lagstrom interviewed residents of Kwethluk and Bethel, who reported that the area along the Kwethluk River in T. 1 N., Rs. 62-63 W., and T. 1 S., R. 63 W., SM (river miles 120-135) can only be boated during spring and fall high water conditions, which last 2-3 weeks and only with jet boats with light loads. John McDonald, a resident of Bethel and one of the owners of Kuskokwim Wilderness Adventures, told Lagstrom on May 11, 1998, that under normal water flow, propeller driven boats could reach Three Step Mountain (river mile 50). Propeller driven boats, he said, could reach Elbow Mountain (river mile 75) during high water periods. Above river mile 75, however, the river was very shallow and could only be ascended during periods of extremely high water which only last a short time.<sup>245</sup> (Attachment 25) On an over flight in 1997, McDonald said he observed a large blockage on the river just beyond Elbow Mountain. The blockage had been created by logs and sweepers from beaver activity on side tributaries. He said people would have a difficult time boating beyond this during normal flow.<sup>246</sup> (Attachment 31)

Jane Angvik, Director of the Alaska Division of Lands, summarized local and regional use of the Kwethluk River in a letter to the BLM dated June 3, 1998. “Today, during the summer season,” she wrote,

boats are used on all the major rivers in the [Yukon Delta NW] refuge, including the Kwethluk. The most important use of these rivers is for travel. The lack of a road system within the refuge makes the locals even more dependent on the waterways to transport food and supplies. Locals use the rivers for hunting, fishing subsistence, and travel to fish camps, allotments, and between communities. All types of boats are used including riverboats, canoes and other small craft. The Kuskokwim, Kwethluk, and Kasigluk rivers are the most heavily used for commercial purposes, subsistence, and recreation. The Kwethluk, Kisaralik and Andreafsky rivers are the primary rivers used by non-local sport anglers. The Akulikutak and the Kushluk rivers are tributaries of the Kwethluk River. They also receive documented use.”<sup>247</sup> (Attachment 24)

#### *Recreational and Commercial Rafting on the Kwethluk River*

Recreational rafting on the Kwethluk River began in the 1980s as outdoorsmen recognized the scenic qualities, challenging whitewater, and good fishing opportunities on the upper portion of the river. In the mid-1980s, commercial guides, such as Paul Allred of Ouzel Expeditions Incorporated, began making requests to the Yukon-Delta NWR for permits to conduct commercial sport fishing raft trips on the Kwethluk River. According to Allred, the refuge told him that it could not issue such permits because it did not have a management plan for the Kwethluk or other rivers running through the refuge. Allred floated the Kwethluk River on a private hunting trip during the summer of 1993 in a 16- foot raft. He and his party landed by float plane on a small lake next to the river and pulled their loaded raft out of the lake, down the outlet stream and into the Kwethluk River. Allred requested a commercial permit from the State of Alaska to operate commercial rafting trips on the river.<sup>248</sup> (Attachment 39) The Division of Lands replied that the State considered the Kwethluk River navigable and no state permits were required for the use of state water bodies for recreational or commercial purposes.<sup>249</sup> (Attachment 40)

In response to requests for permission from commercial wilderness guides to take clients on float trips down the Kwethluk, Yukon Delta NWR manager David Stearns issued a draft finding during the summer of 1994 that two permits for commercial rafting could be issued in late summer each year without causing major problems in the area.<sup>250</sup> (Attachment 41) In late 1994, Stearns decided to move forward with permitting commercial rafting on the upper Kwethluk River. On January 6, 1995, the USF&WS published a public notice seeking letters of interest for commercial sport fish guiding permits on the Kwethluk River.<sup>251</sup>

The proposed permits would have allowed commercially guided rafters to float the river after portaging from a small lake that USF&WS referred to as “Boundary Lake,” because of its location between the boundaries of the Yukon-Delta NWR and Togiak NWR. Loaded 185 or 206 aircraft could land on the lake, but could only take off with a light load. The portage to the river was about one-quarter mile.<sup>252</sup> (Attachment 31) Two outfits applied for permits to do commercial raft trips on the river. Kuskokwim Wilderness Adventures (KWA), a commercial guiding outfit base in Bethel and owned by John McDonald and five partners, applied for one of the permits.<sup>253</sup> (Attachment 31)

The proposal to permit commercial rafting on the river encountered strong local opposition from Kwethluk villagers. A coalition called “The Kwethluk Joint Group,” consisting Kwethluk’s village tribal council, city council and village corporation, opposed the plan because the coalition members felt that opening up this commercial activity would further encourage commercial uses which would harm salmon habitat.<sup>254</sup> “We don’t want to invite outsiders to come in and abuse or misuse the fish spawning in our headwaters,” Max Angellan, the administrator of Kwethluk’s traditional council stated. “It’s our subsistence river. We’ve been using that river since I don’t know when.... since our ancestors, and we’re trying to protect what’s left.” Angellan added that villagers felt that the government should reject the guiding plan based on subsistence protection provisions of the 1980 Alaska lands act. “Subsistence is our livelihood. They’re supposed to help us manage what’s left of our resources.”<sup>255</sup> (Attachment 41)

In a newspaper interview, refuge manager David Stearns stated that while he understood the Natives’ concerns, he did not see a problem in the small number of permits proposed. The river, he pointed out, was already being used by unguided outsiders--primarily sport and subsistence fishermen in motorboats and float planes from Bethel and elsewhere. “It’s not their river and I’ve tried to point it out,” Stearns stated. “They may own some of the banks and they may even own the bottom but they don’t own the water column and the right to control access,” he said. “It’s a navigable corridor, and they can’t call it their river and exclude other use. They’re going to have to stand some people going by their front door in a motor boat, but those people have a perfect right to go by there as a means of access to the rest of the country.”<sup>256</sup> (Attachment 41)

Stearns added that under the proposal for commercial permits, rafters would be dropped off by float plane in the river’s headwater in the Kilbuck Mountains. Trips would be permitted only after August 1 to prevent conflicts with raptors and to give young Harlequin ducks along the river the chance to mature. The trips would include between four and 10 people at a time in two or three rafts, and the two permit holders would each be allowed up to six trips between August 1 and September 30. Most fishing would be catch-and-release, and the float trips would occur upstream of where motor-boats normally travel. The two permits would be awarded by lottery, and Stearns stated that he expected between 10 and 20 outfitters to be interested.<sup>257</sup> (Attachment 41)

Confronted with competing interests on the river and strong opposition from Kwethluk villagers, the Yukon Delta NWR dropped the proposal to issue permits for commercial



rafting trips on the Kwethluk River and no commercial rafting activities have been permitted on the river.<sup>258</sup> (Attachment 25) Dennis Strom, the Yukon-Delta NWR Deputy Manager in 1995, stated in May 7, 1998, that he floated the river from Boundary Lake (river mile 134) to Three Step Mountain (river mile 50) in July 1996, and planned to float the river twice during the summer of 1998 from Boundary Lake to Three Step Mountain to study fish.<sup>259</sup> (Attachment 31) Paul Liedberg of USF&WS in Bethel told BLM interviewers on May 7, 1998, that no commercial activities are allowed on the Kwethluk, Kisaralik, Eek and Kasigluk rivers within Yukon Delta and Togiak NWR lands. There are some who do a “pickup service” on the lower end, no further up the Kwethluk than corporation lands. The Yukon Delta NWR adopted a river management plan for the Kisaralik in 1997, but there is no management plan for the Kwethluk River. Liedberg added that the Kwethluk IRA Council expressed interest in developing a management plan for the Kwethluk similar to the Kisaralik.<sup>260</sup> (Attachment 31)

Recreational rafting has grown in popularity on the Kwethluk River since the mid-1990s. On its sport fish website, ADF&G describes float trips on the Kwethluk as “an intermediate duration float trip for the experienced or novice rafter.” A typical float trip on the river takes five days and ADF&G recommends a raft with a rowing frame (Figure 29). Put in is at an unnamed lake in the headwaters with a short portage to the Kwethluk River. ADF&G describes the river as swift in the upper section as it flows out of the Kilbuck Mountains. “The river channel is defined and water is deep with few log jams to navigate.” The river gradually changes from swift water in the mountains to a gradual, slow meandering course in the lowlands. Air charter services are available from Bethel and Dillingham and local riverboat services are available for pick up in the lower river.<sup>261</sup>

In the absence of guided raft trips on the Kwethluk River, public demand for gear and transportation to and from the river prompted entrepreneurs to create a new form of commercial rafting, referred to by USF&WS as “pickup service.” Outfitters supply the rafts, associated gear and transportation so that recreational rafters can float the river in large numbers. Bethel based KWA began commercially outfitting rafters on the Kwethluk River in the mid-1990s, providing boats, gear and charter flights from Bethel to “Portage Lake” (USF&WS calls this Boundary Lake) on the upper Kwethluk River. KWA picked up the rafters at the lower end of the river and took them back to Bethel by boat. Steve Powers, operating as Papa Bear Adventures in Bethel, also began outfitting clients with rafts and gear in the 1990s, flying them to Boundary Lake and picking the clients up on the lower river. KWA and Papa Bear Adventures competed in outfitting rafting trips down the Kwethluk River until 1998, when the two businesses began working together. Since that time, Papa Bear has supplied rafts and outfits to the rafters and flown them to Boundary Lake. KWA, which was already doing guided sports fishing charters in boats on the lower Kwethluk River, has picked the rafters and brought them back to Bethel by boat. For the last 10 years, Papa Bear has been the main scheduler for this non-guided raft outfitting business and has flown in and dropped off about 99% of the rafters on the Kisaralik and Kwethluk rivers. KWA has picked up about 95% of the raft groups at the end of their float on the lower Kisaralik and Kwethluk rivers.<sup>262</sup>



**Figure 29. Two men in a raft with a rowing frame on the Kwethluk River. Photo from <http://www.4.nau.edu>.**

KWA picked up six groups of rafters (31 people) on the Kwethluk River in 2000. The number KWA picked up gradually increased to 12 groups (44 people) in 2003,<sup>263</sup> the last year for which KWA had statistics available (Table 2). KWA has boats that take fishermen from Bethel to the lower Kwethluk for sports fishing. While there, KWA boats pick up the rafting parties at the completion of their raft trips. The pickup boats go approximately 30 miles up the Kwethluk River from the mouth to pick up the rafters. KWA uses 20-foot Wooldridge aluminum boats with 150 horsepower prop outboards (Figure 30). It takes about two hours to transport the rafters back to Bethel by boat.<sup>264</sup>

While Papa Bear Adventures outfits most of the float trips down the Kwethluk River each year, a small number of other commercial businesses also outfit rafters for trips on the river. Marty Decker of Frontier Outfitters in Anchorage reportedly outfits 4-5 raft trips down both the Kisaralik and Kwethluk rivers each year. He would not say if guides are present in the rafts.<sup>265</sup>

In addition to recreational rafters who are “outfitted” by commercial businesses, an unknown number of recreational rafters bring their own rafts and gear to float the Kisaralik. Some of these rafters arrange transport through Papa Bear Adventures or Renfros’ Alaskan Adventures in Bethel, or use air charter businesses from other communities.

**Table 2: Non-Guided Raft Traffic on the Kwethluk River.**

Year	Number of Groups	Number of People	Source
1993	1	Unknown	Paul Allred
1994	---	---	(Data Not Available)
1995	---	---	(Data Not Available)
1996	1	Unknown	USF&WS
1997	---	---	(Data Not Available)
1998	2	Unknown	USF&WS
1999	---	---	(Data Not Available)
2000	6	31	Kuskokwim Wilderness Adventures;
2001	5	18	Kuskokwim Wilderness Adventures;
2002	4	17	Kuskokwim Wilderness Adventures;
2003	12	44	Kuskokwim Wilderness Adventures;
2004	---	---	(Data Not Available)
2005	---	---	(Data Not Available)
2006	---	---	(Data Not Available)
2007	---	---	(Data Not Available)
2008	---	---	(Data Not Available)
2009	---	---	(Data Not Available)

Based on data provided by: Paul Allred (1994),<sup>266</sup> Laura Lagstrom, BLM (1998),<sup>267</sup> and John McDonald (2009);<sup>268</sup>



**Figure 30. Wooldridge power boats used by Kuskokwim Wilderness Adventures (KWA) for sport fish charters and picking up rafters on the lower Kisaralik River. Photo downloaded from <http://www.kuskofish.com/images/sidephotos/boats>.**

## VI. Summary

Over the years, the BLM has made a number of navigability determinations on portions of the Kwethluk River using at least four different criteria (Table 1, page 17). In 1979, the BLM determined the Kwethluk River from its mouth (river mile 0) upstream to river mile 3.0 navigable due to tidal influence or because that portion of the river was thought to be part of the Kuskokuak Slough. The BLM determined the Kwethluk River non-navigable from river mile 3.0 to river mile 47.5 without citing any navigability criteria or considering historic use. The BLM reconsidered navigability of the river in 1991, taking into account historic use, recent use by BLM employees and use by local Natives, and using the criterion of a boat with capacity to carry 1,000 pounds. The agency's 1991 document determined the Kwethluk River navigable in nine townships, from river mile 15.5 to river mile 83.5. In 1995, the BLM determined the Kwethluk River navigable from river mile 47.5 to river mile 90.5.

The BLM reconsidered navigability of the river in 2007, but relied only on the 1979 DIC to conclude that the Kwethluk River was non-navigable in T. 6 N., R. 68 W. (river mile 33 to river mile 47.5) and T. 8 N., R. 69 W., SM (river mile 0 to river mile 15.5). Lands in T. 7 N., R. 68 W., SM were not included in the 2007 navigability summary and were to be addressed at a later date. The BLM has issued no navigability determinations upstream of T. 3 N., R. 66 W., SM (river mile 90.5) to the river's source (river mile 162.0) as that area has not been part of ANSCA village selections. The BLM determined the lower portion of Net Creek, an anabranch of the Kwethluk River, non-navigable in 1984 in IC No. 790 and IC No. 791. In 1998, the BLM determined an upper portion of Net Creek navigable within Native Allotment F-17052-B. Several smaller tributaries of the Kwethluk River were determined non-navigable in 1998 where they flow through Native allotments. BLM surveyors meandered and segregated the river from uplands in the townships extending from the river's mouth (river mile 0.0) through T. 6 N., R. 68 W., SM (river mile 47.5). These surveys were conducted from instructions based on the 1991 navigability memorandum. As of November 2009, the BLM had not issued patents to Native corporations for lands selected in this area.

When considering the navigability of the Kwethluk River, the BLM considered historical information from the 1985 Kuskokwim Regional Report in a 1991 navigability memorandum, a 1995 navigability report and a 1998 navigability memorandum, but not in the 1979 and 2007 navigability decisions. The 1985 Kuskokwim Regional Report described mining and survey activity along the Kwethluk River, but the 1979 BLM decision and the 2007 BLM summary of navigability on the river do not state whether commerce was present on the river or whether the river was susceptible to commerce at the time of statehood in 1959. The BLM considered but rejected evidence of use in recent decades on the middle reaches of the river occurring during brief, annually occurring periods of time in spring, summer or fall when high water allows access by boats.



The State's position, as set forth in 1998, is that portions of the Kwethluk River and two of its right-bank tributaries within IC 213 and four other interim conveyances are navigable and thus state-owned. The Kwethluk, Akulikutak and Kushluk rivers are "obviously navigable waters within this survey window [290]," the Director of the State Division of Lands wrote. The Kwethluk River, along with the Kuskokwim and Kasigluk rivers, "are the most heavily used [rivers in the Yukon Delta] for commercial purposes, subsistence, and recreation" and the "Kwethluk, Kisaralik and Andreafsky rivers are the primary rivers used by non-local sport anglers." Both locals and non-locals use all these rivers, the state official concluded, "for a variety of activities which clearly demonstrates their susceptibility to use as a highway of commerce. Travel on these waterways is vital to the survival of the communities."<sup>269</sup> (Attachment 24)

In terms of physical characteristics, the information compiled in this report indicates that for most of its length, the Kwethluk River is a narrow, gently meandering, clear, moderate-gradient water body containing sand bars and isolated areas of shallow depths. The river varies in width, ranging from 10 feet in its uppermost reaches to 200 feet wide at its mouth near the village of Kwethluk. The river's depth varies from 10 inches in its upper reaches to 15 feet at its mouth, depending on the location measured and the season. The Kwethluk River has an average gradient of 13 feet per mile. In its upper reaches, the river is a single, well-defined, boulder strewn channel with rapids. No information is available about the width and depth in the uppermost 26 miles of the river. It emerges from the mountains at river mile 140, averaging 50-60 feet wide with occasional channels constricted to 20 feet, and occasional rapids. As it winds through the foothills, the river is braided and has a width of 66 to 130 feet. The depth in this part of the river varies depending on the season. From river mile 120 to river mile 75, it can be 6 inches to 1.5 feet deep in the summer and 8-15 feet deep in the spring and fall during periods of high water. The Kwethluk River emerges from the foothills near river mile 120 and becomes a meandering stream averaging 100-200 feet wide as it flows through the Kuskokwim Flats. In its middle and lower reaches, the river becomes murky, slow and meandering, and the depth can vary from 1.5 feet to 12 feet. The extent of tidal influence on the river was estimated during the 1970s as the first three miles upstream from the mouth, but no other data on tidal influence has been found. Impediments to boating the river during low water between river mile 75 and river mile 120 include boulders, logs and sweepers, and gravel bars and shallow areas. The river appears to be in its natural and ordinary condition from the time of statehood.

The Kwethluk River has a long history of use. Information compiled in this report documents five types of use of the Kwethluk River during the historic period prior to statehood. In the first type of use, generations of Natives from Kwethluk traveled on foot or by dog sled up into the mountains to hunt in April and May each year. Just before breakup, they built skin boats covered with caribou, moose or bear hides. They used these skin boats from at least the 1800s up through 1959 to float down the Kwethluk River to return to their village after the late winter hunt. Kwethluk residents also used canoes to travel up the river during the summer and fall to harvest fish, game and berries. They used canoes and skin boats to transport themselves and their harvested resources

back to their villages. Kwethluk residents used some of the harvested resources for their own sustenance and distributed the rest for ceremonial, sharing, partnership, trade and commercial exchange.

The second type of historic use consisted of miners in the 1910s and 1920s using poling boats to carry mining equipment, supplies and men up the Kwethluk River as far as “the Great Bend” (about river mile 70). During times of high water in the spring and fall, the miners could pole their boats all the way to Crooked Creek (also known as Canyon Creek). During the middle of the summer, they used overland trails to carry their equipment farther up the river to the mouth of Crooked Canyon and to their mining claims at the headwaters of Crooked Creek.

The third type of historic use consisted of the U.S. Bureau of Education and the Moravian Mission using motor launches with a capacity to carry up to 75 tons to transport building materials and supplies up the first three miles of the Kwethluk River in the 1920s to build a school at Kwethluk Village (river mile 1) and an orphanage at *Nunapitsinghak* (river mile 3.0).

The fourth type of historic use consisted of reindeer herders and federal government inspectors who used small outboard motor boats in the early 1930s to transport men and equipment up the Kwethluk River to the mouth of Canyon Creek to inspect reindeer herds.

The fifth type of historic, pre-statehood use of the river includes local Natives who ascended the river in boats with outboard motors in the 1950s to access exclusive use areas (later identified as Native allotments) and other areas for subsistence purposes. The Natives used boats to travel up and down the river to harvest fish, game and berries. They traveled as far upriver as river mile 65. Upon their return to their village, they used some of the resources for their own sustenance and distributed the rest for ceremonial, sharing, partnership, trade and commercial exchange.

Since statehood (1959), four different types of groups have taken boats up and down portions of the Kwethluk River or used rafts or skin boats to float down the river. The first type of use is travel by Natives to conduct subsistence activities. They have traveled on the river in skiffs with outboard motors, skin boats and jet boats to conduct subsistence activities at allotment sites to fish, hunt and trap along the river. Residents of Kwethluk have continued to travel overland to the mountains in the late winter to hunt. After breakup, they built skin boats much as their ancestors had. They filled the boats with their tools, meat and family members and floated from the area between river mile 120 and river mile 135 down the river to their village. In recent decades, Natives from Kwethluk and Akiak travel in the summer by outboard and jet boats along the lower and middle reaches of the river to conduct subsistence fishing, hunting and gathering berries. In the fall, they travel by boat as far up the river as river mile 120 during periods of high water to hunt caribou, moose and bear. They use the boats to carry the meat back to their villages, where it is distributed among families in the villages.

The second type of post-statehood use of the Kwethluk is the use of power boats and rafts for recreational sport fishing. This activity includes guided and non-guided angling from power boats and unguided raft trips. In 1975, a BLM employee characterized the number of motor boats used on the river as “heavy” from May to October to access public lands as far up river as river mile 125. ADF&G biologists noted in 1977 that the Kwethluk River received the heaviest fishing pressure of the lower Kuskokwim streams. While boats with outboard motors are most often used for sport angling, sport fishing is often combined with recreational rafting on the river. Rafters often put in near river mile 134 at the boundary between the Togiak NWR and the Yukon Delta NWR. Recreational rafting has occurred on the river since at least the mid-1980s, but the number of rafting trips occurring each year is unknown as there is little data available on non-commercial rafting on the river.

The third type of use of the river since 1959 consists of federal and state government sponsored float and power boat trips to study the river. ADF&G employees surveyed the river to study fish resources up to river mile 72 by boat in 1976, noting that “the river was easier to travel than the Kisaralik as the channels and water were deeper and the current slower with fewer log jams.” During 1991, BLM surveyors traveled up the Kwethluk River to river mile 65 in a 13-foot inflatable raft with a 35-horsepower motor. In the late 1990s, an ADF&G employee and an USF&WS employee stated in interviews their opinions that the river was navigable for a flat-bottomed or jet boat up to Crooked Creek (river mile 110).

The fourth type of post-1959 use consists of commercial navigation on the lower portion of the river. In 1981, a commercial barge company delivered three loads of gravel, using a 2,000-ton barge, to Kwethluk Village (river mile 3) under contract with the Alaska Department of Transportation and Public Facilities.

The fifth type of post-1959 use consists of members of the public floating the Kwethluk River in rafts for recreation. The Yukon Delta NWR does not authorize commercial rafting activity on the Kwethluk River in which guides accompany clients on the trip. Commercial businesses are not able to obtain commercial rafting permits on the river and are not allowed to offer guided raft trips. Local guides in the area established an alternative commercial enterprise in which they outfit customers with rafts and equipment and transport their clients to and from the river. These businesses outfit paying clients with boats and equipment, fly them to a drop-off point near river mile 134, and later pick them up on the lower river. The number of clients these commercial outfitters have outfitted on the Kwethluk River is unknown, but are at least 6 to 12 groups carrying up to 44 people each year. At least 110 people (Table 2) have rafted the river since the mid-1980s on their own or using commercially outfitted 12-foot and 14-foot rafts capable of carrying 1,000 pounds or more.

## Endnotes

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- <sup>2</sup> A.G. Maddren, "Gold placers of the lower Kuskokwim, with a note on copper in the Russian Mountains," in A.H. Brooks, *Mineral Resources of Alaska, Report on Progress of Investigations in 1914*, U.S. Geological Bulletin No. 622, Washington, D.C., Government Printing Office, 1915, p. 355.
- <sup>3</sup> Curtis McVee, Notice of Proposed Easement Recommendations for the Village of Kwethluk, October 13, 1976, BLM Files, F-14883-EE.
- <sup>4</sup> Chuin W. Whittick, Amendment to Final Easements for the Village of Kwethluk, October 11, 1978, BLM files, F-14883-EE.
- <sup>5</sup> W.R.D. [Wayne R. Dawson], Navigability Field Report, Physical Data, November 4, 1975, BLM files, F-14883-EE.
- <sup>6</sup> McVee, Notice of Proposed Easement Recommendations for the Village of Kwethluk, October 13, 1976, BLM Files, F-14883-EE.
- <sup>7</sup> Frank A. Stefanich, Access Project Leader in the ADF&G Habitat Protection Section, to Horace Sanders of BLM, May 9, 1977, BLM Files, F-14883-EE.
- <sup>8</sup> Judith A. Kammins, Decision: Lands Proper for Village Selection Approved for Interim Conveyance to Kwethluk, Inc., March 7, 1979, BLM files, F-14883-A.
- <sup>9</sup> Letter by Allan Carson, Acting Director of the State Division of Lands, to Kwethluk Incorporated, March 23, 1979, BLM files, F-14883-A.
- <sup>10</sup> Interim Conveyance No. 213 to Kwethluk Incorporated, July 20, 1979, and Interim Conveyance No. 214 to Calista Corporation, July 20, 1979, BLM files, F-14883-A.
- <sup>11</sup> Harold E. Wolverton to Kwethluk, Inc., March 11, 1983, BLM files, F-14883-EE.
- <sup>12</sup> Letter from Martin L. Karstetter, Acting Chief, BLM Branch of Easement Identification, to Moses Nicolai, Kwethluk, Inc., December 9, 1983, and Robert W. Arndorfer, Deputy State Director for Conveyance Management, BLM Release of Interest to Kwethluk, Incorporation on Easements EIN 2 L and EIN 14 C for Interim Conveyance 213, December 2, 1983, BLM files, F-14883-EE.
- <sup>13</sup> State of Alaska Protest Form, FF-15926, received by BLM June 17, 1981, BLM files, FF-15926; Barbara J. Opp, Decision on Access Protest, April 12, 1995, BLM files, FF-25342.
- <sup>14</sup> Unsigned typewritten memo to the files, dated June 17, 1981, in the Native Allotment file for Martha Togayak [Mile 59.0], BLM files, FF-15927-B.
- <sup>15</sup> Barbara A. Yoppke, Decision to Protest Summarily Dismissed in Part, November 27, 1981, BLM files, FF-15926 and FF-019254.
- <sup>16</sup> Robert W. Faithful IV, Final Navigability Determination for BIA School Site at Kwethluk, February 28, 1983, BLM files, F-14883-EE.
- <sup>17</sup> Interim Conveyance No. 790 to Kwethluk, Inc. and Interim Conveyance No. 791 to Calista, January 31, 1984, BLM files, F-014883-A.
- <sup>18</sup> Letter from C. Michael Brown to Phil Guy of Kwethluk Incorporated., May 26, 1987, BLM files, F-14883-A.
- <sup>19</sup> Phillip Guy, Land Planner, Kwethluk Incorporated, to Mike Brown, BLM, June 3, 1987, BLM files, F-14883-EE.
- <sup>20</sup> Robert W. Andorfer, Memorandum on Navigable Waters in Group Survey 253 (Window 1837), August 12, 1988, BLM files, F-14854.
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- <sup>23</sup> Barbara Opp, BLM land law examiner, memorandum of telephone conversation of Terry Peterson of Alaska State DNR, January 26, 1995, BLM files, FF-25342.
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<sup>26</sup> Laura Lagstrom, Navigability Report: Left Bank Tributary of Kwethluk River in Native Allotments F-19245-A, F-18189-C, F-15926 and Regional Selection AA-10429, Mouth in Sec. 36, T. 6 N., R. 68 W., SM, Window 2029, Group Survey 284, January 8, 1998, BLM files, Navigability FF-14883-EE.

<sup>27</sup> Laura Lagstrom, Navigability Report: Left Bank Tributary of an anabranch of the Kwethluk River in Native Allotments F-17052-B, and F-17210-B, Mouth in Sec. 12, T. 7 N., R. 69 W., SM, Window 2029, Group Survey 284, January 8, 1998, BLM files, Navigability FF-14883-EE.

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<sup>29</sup> Laura Lagstrom, Navigability Report: Anabranch of Kwethluk River in Native Allotment F-17052B, downstream mouth in Sec. 15, T. 8 N., R. 69 W., SM, and upstream mouth in Sec. 17, T. 7 N., R. 68 W., SM, Window 2029, Group Survey 284, January 8, 1998, BLM files, Navigability FF-14883-EE.

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<sup>34</sup> Dorothy J. Bonds, Native Allotment Field Report for John J. Rodgers application, August 24, 2001, BLM files, AA-82909.

<sup>35</sup> Dominica VanKoten, Memorandum on Navigable Waters within (Veterans) Native Allotment Application AA-082909, November 9, 2006, BLM files, AA-082909 (2568).

<sup>36</sup> Corrected Interim Conveyance No. 1964 and No. 1965, April 6, 2006, BLM files, F-14833-A.

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<sup>42</sup> Ibid., pp. 32 and 34.

<sup>43</sup> Clay, *Compilation of Hydrologic Data on the Kuskokwim Region*, p. 211; Laura Lagstrom, memorandum on Interviews for selected lands within [Survey] Window 2029, Part I, December 8, 1997, pp. 1-2, BLM files, FF-14824 (75.4).

<sup>44</sup> Clay, *Compilation of Hydrologic Data on the Kuskokwim Region*, p. 39.

<sup>45</sup> Laura Lagstrom, Memorandum on Field Trip [on September 15, 1997] for [Survey] Window 2029, Part I, December 4, 1997, BLM files, FF-14824; Laura Lagstrom, memorandum on Interviews for selected lands within [Survey] Window 2029, Part I, December 8, 1997, pp. 1-2, BLM files, FF-14824 (75.4)..

<sup>46</sup> Laura Lagstrom, memorandum on Interviews for selected lands within [Survey] Window 2029, Part I, December 8, 1997, pp. 1-2, BLM files, FF-14824 (75.4).

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- <sup>49</sup> Aerial photographic review by Scott Guyer on Kwethluk River, in Laura Lagstrom, memorandum on Interviews for Native Allotment selections added to Window 2700 which straddle Kwethluk and Eek River, March 13, 1998, p. 1, BLM files, Bethel-NA-FY98.
- <sup>50</sup> Wayne A. Boden, Memorandum on Navigable Waters in Group Survey 253 (Window 1837), November 6, 1991, BLM files, F-14883 (75.4).
- <sup>51</sup> Interview with Richard Long of Kwethluk, April 2, 1998, in Laura Lagstrom, Memorandum on Interviews for Native Allotment selections added to Window 2700 which straddle Kwethluk and Eek River, March 13, 1998, pp. 4-5, BLM files, Bethel-NA-FY98.
- <sup>52</sup> Wayne A. Boden, Memorandum on Navigable Waters in Group Survey 253 (Window 1837), November 6, 1991, BLM files, F-14883 (75.4).
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- <sup>56</sup> Interview with Alexander Nicori of Kwethluk, March 25, 1998, in Laura Lagstrom, Memorandum on Interviews for Native Allotment selections added to Window 2700 which straddle Kwethluk and Eek River, March 13, 1998, p. 2, BLM files, Bethel-NA-FY98.
- <sup>57</sup> Alt, *Inventory and Cataloging Western Alaska Waters*, p. 34.
- <sup>58</sup> Interview with Alexander Nicori of Kwethluk, March 25, 1998, in Laura Lagstrom, Memorandum on Interviews for Native Allotment selections added to Window 2700 which straddle Kwethluk and Eek River, March 13, 1998, p. 2, BLM files, Bethel-NA-FY98.
- <sup>59</sup> Wayne A. Boden, Memorandum on Navigable Waters in Group Survey 253 (Window 1837), November 6, 1991, BLM files, F-14883 (75.4).
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- <sup>67</sup> Frank A. Stefanich, Access Project Leader in the ADF&G Habitat Protection Section, to Horace Sanders of BLM, May 9, 1977, BLM Files, F-14883-EE.
- <sup>68</sup> Whittick, Amendment to Final Easements for the Village of Kwethluk, October 11, 1978, BLM files, F-14883-EE.
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- <sup>74</sup> Wayne A. Boden, Navigable Waters in Group Survey 253 (Window 1837), November 6, 1991, BLM Files, F-14883 (75.4).
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- <sup>230</sup> Michael W. Coffing, Louis Brown, Gretchen Jennings and Charles J. Utermohle, *The Subsistence Harvest and use of Wild Resources in Akiachak, Alaska*, 1998, Technical Paper No. 258, Division of Subsistence, Alaska Department of Fish and Game, Juneau, November 2001, pp. 151, 157.
- <sup>231</sup> Ibid., pp. 82, 89, 91.
- <sup>232</sup> Ibid., pp. 90-91, 101.
- <sup>233</sup> W.R.D. [Wayne R. Dawson], Navigability Field Report, Historical or Present Use Data, November 4, 1975, BLM files, F-14883-EE.
- <sup>234</sup> Curtis McVee, Notice of Proposed Easement Recommendations for the Village of Kwethluk, October 13, 1976, BLM Files, F-14883-EE.
- <sup>235</sup> Alt, *Inventory and Cataloging Western Alaska Waters*, p. 32.
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- <sup>238</sup> Curtis V. McVee, Memorandum on Amendment to the Final Easements for Kwethluk Village, September 22, 1978, amending the memorandum dated March 24, 1977, BLM files, F-14883-EE.
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- <sup>241</sup> Kamins, Decision: Lands Proper for Village Selection Approved for Interim Conveyance to Kwethluk, Inc., March 7, 1979, and Interim Conveyance No. 213 to Kwethluk Incorporated, July 20, 1979, and Interim Conveyance No. 214 to Calista Corporation, July 20, 1979, BLM files, F-14883-A.



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- <sup>244</sup> Laura Lagstrom, Memorandum on Field Trip [on September 15, 1997] for [Survey] Window 2029, Part I, December 4, 1997, p. 2, BLM files, FF-15824.
- <sup>245</sup> Lagstrom, Navigability Report: Kwethluk River in T. 1 N., Rs. 62 & 63 W., SM and T. 1 S., Rs. 62-63 W., SM, June 17, 1998, BLM files, Bethel-NA-FY'98.
- <sup>246</sup> Interview with John McDonald of Kuskokwim Wilderness Adventures in Bethel, May 11, 1998, in Laura Lagstrom, memorandum on Interviews for Native Allotment selections added to Window 2700 which straddle Kwethluk and Eek River, March 13, 1998, p. 6, BLM files, Bethel-NA-FY98.
- <sup>247</sup> Angvik, Director of Division of Lands, to Gust C. Panos, Chief of BLM Branch of Mapping Sciences, June 3, 1998, DNR/PAAD file on Kwethluk River.
- <sup>248</sup> Paul Allred, Ouzel Expeditions Incorporated, to Danny R. Allison of the Alaska Department of Natural Resources, May 18, 1994, DNR/ML&W/PAAD file on the Kwethluk River.
- <sup>249</sup> Danny R. Allison of the Alaska Department of Natural Resources, to Paul Allred, Ouzel Expeditions Incorporated, to June 17, 1994, DNR/ML&W/PAAD file on the Kwethluk River.
- <sup>250</sup> David Hulen, "Guide permits draw fire: Villagers don't want tourists on upper Kwethluk River," *Anchorage Daily News*, January 15, 1995, p. B-1.
- <sup>251</sup> Public Notice, *Anchorage Daily News*, January 6, 1995.
- <sup>252</sup> Interview with Dennis Strom of USF&WS/Bethel, May 7, 1998, in Laura Lagstrom, memorandum on Interviews for Native Allotment selections added to Window 2700 which straddle Kwethluk and Eek River, March 13, 1998, p. 6, BLM files, Bethel-NA-FY98.
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- <sup>255</sup> Angellan is quoted in Hulen, "Guide permits draw fire: Villagers don't want tourists on upper Kwethluk River," *Anchorage Daily News*, January 15, 1994, p. B-2.
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- <sup>261</sup> See <http://www.sf.adfg.state.ak.us/Management/Areas.dfm/FA/kuskokwimFloat.kwethluk>.
- <sup>262</sup> Telephone interview with John McDonald by Rolfe Buzzell, January 30, 2009; E-mails from John McDonald of Bethel to Rolfe Buzzell, January 30 and February 19, 2009.
- <sup>263</sup> E-mail from John McDonald of Bethel to Rolfe Buzzell, February 17, 2009.
- <sup>264</sup> E-mail from John McDonald of Bethel to Rolfe Buzzell, January 30, 2009.
- <sup>265</sup> Telephone interview with John McDonald by Rolfe Buzzell, January 30, 2009; telephone interview with Marty Decker by Rolfe Buzzell, January 31, 2009.
- <sup>266</sup> Paul Allred, Ouzel Expeditions Incorporated, to Danny R. Allison of the Alaska Department of Natural Resources, May 18, 1994, DNR/ML&W/PAAD file on the Kwethluk River.
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<sup>268</sup> Telephone interview with John McDonald by Rolfe Buzzell, January 30, 2009; E-mails from John McDonald of Bethel to Rolfe Buzzell, January 30 and February 19, 2009.

<sup>269</sup> Jane Angvik, Director of Division of Lands, to Gust C. Panos, Chief of BLM Branch of Mapping Sciences, June 3, 1998, DNR/PAAD file on Kwethluk River.