



THE STATE  
*of* **ALASKA**  
GOVERNOR BILL WALKER

Department of Natural Resources

DIVISION OF MINING, LAND & WATER  
PUBLIC ACCESS ASSERTION AND DEFENSE

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September 15, 2016

Mr. Bud Cribley  
State Director  
Bureau of Land Management  
222 West 7<sup>th</sup> Avenue, #13  
Anchorage, Alaska 99513-7504

Subject: (AK AA-093319) Amended Recordable Disclaimer of Interest Application for the Arolik River System: Including the East Fork Arolik River and Arolik Lake, and a portion of the Arolik River,.

Dear Mr. Cribley:

Pursuant to 43 CFR § 1864, the State of Alaska (State) files this application for a recordable disclaimer of interest (RDI) for the lands underlying the herein-described portions of the Arolik River System (as described above).

I. Description of Waterway

This application is submitted for the submerged lands as follows:

- 1) East Fork Arolik River including Arolik Lake: All submerged lands between the ordinary high water lines of the left and right banks of the East Fork Arolik River, starting at the outlet of Arolik Lake within Sec. 24, T. 8 S., R. 70 W., S.M. downstream to east section line of Sec. 10, T. 8 S., R. 71 W., S.M.; and all submerged lands below the ordinary high water line of Arolik Lake within Sections 23, 24 and 25, T. 8 S., R. 70 W., S.M. and Sections 19, 30 and 31 T. 8 S., R. 69 W., S.M. Alaska.

- 2) Arolik River: All submerged lands between the ordinary high water lines of the left and right banks of the Arolik River, within T. 7 S., R. 71 W., S.M., Alaska.

This includes the submerged lands and beds of all anabranches, braids and channels that carry water from the navigable rivers and thus are a part of the navigable river. Maps highlighting the rivers and lakes of the Arolik River and Lake System along with a legal description of the townships and ranges underlying each river and lake are enclosed as Exhibit 1.

## II. Waiver Requests

### A. Survey Requirements

The State requests that the Bureau of Land Management (BLM) approve the State's request for a waiver of any survey requirements. As previously discussed with the BLM Alaska State Director, the State requests a waiver under § 1864.1-2(d) of the requirement of 43 CFR § 1864.1-2 (c)(1) for a description based on a public land survey or certified metes and bounds survey. The map and legal description submitted with this RDI application sufficiently identify the land subject to this application, but if not the recordable disclaimer can be worded appropriately to fit the circumstances without requiring a public land survey. The submerged lands for which this RDI is sought are identified by name or, if unnamed, readily identified as the East Fork Arolik River, and Arolik Lake, and Arolik River. Navigable waterways, such as these rivers, are typically ambulatory, thus making a public survey of them problematic and unnecessary. Such a meander line survey would have to cover a large, long stretch of river system including interconnected channels and sloughs, would be very expensive and time-consuming, and then would only be a representation of a moving boundary. The Department of the Interior (DOI) has issued RDIs to the State for the beds of navigable rivers in the past without requiring a public land survey of the river system or any part of it, and judgments, decisions, and decrees of the U.S. District Court, Ninth Circuit Court of Appeals, and U.S. Supreme Court

finding title in the State to the beds of navigable waters have not required a public land survey.<sup>1</sup>

### III. Basis of the State's Request for a Recordable Disclaimer of Interest

#### A. Navigable Waterway

The State's RDI application for the bed of the navigable rivers and lake in the Arolik River system is supported by the Equal Footing Doctrine, the Submerged Lands Act of 1953, the Alaska Statehood Act, the Alaska Right of Way Act of 1898, and other title navigability law. BLM may disclaim interest in the submerged lands on any or all of those grounds.

Because these rivers and the lake were navigable on January 3, 1959, when Alaska became a state, the State of Alaska owns the river and lake beds by virtue of the Equal Footing Doctrine and the Submerged Lands Act. *Alaska v. Ahtna, Inc.*, 891 F.2d 1401, 1404 (9th Cir. 1989), *cert. denied*, 495 U.S. 919 (1990). The constitutional Equal Footing Doctrine "guarantees to newly-admitted States [like Alaska] the same rights enjoyed by the original thirteen States and other previously-admitted States." *Id.* (citing *Utah v. United States*, 482 U.S. 193, 196 (1987)). "One of these rights is title ownership to the lands underlying navigable rivers." *Id.* The Submerged Lands Act of 1953 confirmed and extended "title to and ownership of the lands beneath navigable waters within the boundaries of the respective States." *Id.* (citing 43 U.S.C. § 1311(a)). "Congress explicitly provided for this rule to apply to Alaska when Alaska became a State in 1959." *Id.* (citing 48 U.S.C. Chapter 2 ("the Statehood Act") note 6(m) prec. sec. 21 (1982)). The rule includes state ownership of tidelands and the beds of marine waters up to three miles seaward of Alaska's coastline. *Id.*; 43 U.S.C. §§ 1301(a), 1311(a); *United States v. California*, 436 U.S. 32, 35 n.7, 37 (1978). In addition, in the Alaska Right of Way Act of May 14, 1898, 30 Stat. 409, 43 U.S.C. §§ 942-1 to 942-9, Congress recognized application of the equal footing doctrine to Alaska. It expressly reserved, as a matter of federal law: "the title of any State that may hereafter be erected out of the Territory of Alaska, or any part thereof, to tidelands and beds of any of its

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<sup>1</sup> See, e.g., *Alaska v. United States*, 546 U.S. 413, 415-17 (2006); *Alaska v. Ahtna, Inc.*, 891 F.2d 1401 (9th Cir. 1989); *Alaska v. United States*, 662 F. Supp. 455 (D. Alaska 1987).

navigable waters, . . . it being declared that all such rights shall continue to be held by the United States in trust for the people of any State or States which may hereafter be erected out of said Territory.”

#### IV. Reason for the State’s Request for a Recordable Disclaimer of Interest

The lack of any title document or judgment creates a cloud on the State’s title to submerged or submersible lands beneath navigable waters. A recordable disclaimer of interest for this land will help lift the cloud on the State’s title stemming from the lack of any permanent determination of ownership and correct any conflict and uncertainty in the public’s understanding of title and use, without the time, expense and trouble of engaging in quiet title litigation.

#### V. Determining Navigability of Water Bodies under Current Law

The question of navigability for the purpose of state ownership is decided according to federal law. *Ahtna, Inc.*, 891 F.2d at 1404 (citing *Holt State Bank*, 270 U.S. 49, 55-56 (1926)). The Supreme Court expressed the basic test for navigability in *The Daniel Ball*, 77 U.S. (19 Wall) 557, 563 (1870), as follows:

Those rivers must be regarded as public navigable rivers in law which are navigable in fact. And they are navigable in fact when they are used, or are susceptible of being used, in their ordinary condition, as highways for commerce, over which trade and travel are or may be conducted in the customary modes of trade and travel on water.

*Id.* This test is applied in multiple situations, including when answering questions of title to river or streambeds under the equal footing doctrine. See *PPL Montana, LLC v. Montana*, 132 S. Ct. 1215, 1228 (2012).



Case law subsequent to *The Daniel Ball*, including *Ahtna, Inc.* and the U.S. Department of the Interior's decision in *Appeal of Doyon, Ltd.*, 86 Interior Dec. 692, 698 (ANCAB 1979), explained the meaning of that basic test. The physical character of the waterway, and in particular its capacity to be navigated, is an important factor when considering navigability for title. In the Supreme Court's most recent decision regarding navigability for title, *PPL Montana, LLC v. Montana*, it again emphasized that rivers and streams are not only navigable if they were *used* for commerce, but also if they were *susceptible* of being used as highways of commerce at the time of statehood. 132 S. Ct. at 1233. And, as previously stated by the Ninth Circuit in *Ahtna, Inc.*: "Although the river must be navigable at the time of statehood, . . . *this only means* that, at the time of statehood, *regardless of the actual use of the river*, the river must have been *susceptible* to use as a highway of commerce. \* \* \* [I]t is not even necessary that commerce be in fact conducted . . . 'The extent of existing commerce is not the test.'" 891 F.2d at 1404 (quoting *United States v. Utah*, 283 U.S. 64, 75, 82-83 (1931) (emphasis added)). Rather, it is enough to show:

the capacity of the rivers in their ordinary condition to meet the needs of commerce as they may arise in connection with the growth of the population, the multiplication of activities, and the development of natural resources. And this capacity may be shown by physical characteristics and experimentation as well as by the uses to which the streams have been put.

*Utah*, 283 U.S. at 83. Present-day recreational use is relevant to determining whether a river was susceptible to commercial use at the time of statehood if: "(1) the watercraft are meaningfully similar to those in customary use for trade and travel at the time of statehood; and (2) the river's post-statehood condition is not materially different from its physical condition at statehood." *PPL Montana, LLC*, 132 S. Ct. at 1233.

Although portages — or the need to bypass a river segment — may defeat navigability for title for that particular river segment, *id.* at 1231–32, the presence of rapids, sandbars, and other obstructions, which may make navigation difficult, but not impossible, does not destroy title navigability, *see Utah*, 283 U.S. at 86. In *Utah*, a case addressing navigability for title, the Supreme Court stated "the mere fact of the presence of . . . sandbars causing

impediments to navigation does not make a river nonnavigable.” 283 U.S. at 86. Although “the presence of sandbars must be taken in connection with other factors making for navigability,” the “essential point is whether the natural navigation of the river is such that it affords a channel for useful commerce.” *Id*; see also *Oregon v. Riverfront Protection Ass’n*, 672 F.2d 792, 795 (9th Cir. 1982), (relying on the use of the McKenzie River in Oregon for log drives to determine the river navigable for title and stating that the “use of the river need not be without difficulty, extensive, or long and continuous.”); *Doyon, Ltd.*, 86 Interior Dec. at 697 (“Although rapids, shallow waters, sweepers, and log jams make navigation difficult on both [the Kandik and Nation Rivers], the evidence shows that these impediments do not prevent navigation.”).

Boat use is not the only method for proving a river or stream’s ability to serve as a highway for useful commerce. In *Oregon v. Riverfront Protection Association*, the Ninth Circuit considered evidence of the transporting of logs on the McKenzie River relevant to determining the river’s potential use for commerce. 672 F.2d at 794–96. The court further found that the seasonal and sometimes difficult nature of these log drives did not destroy navigability. *Id.* at 795–96 (holding that “notwithstanding [the] difficulties, thousands of logs and millions of board feet of timber were driven down the river” and this use was not “occasional” as it occurred over a three-month period for over seventeen years).

Applying these standards to Alaska, the courts and Department of the Interior have found waterways navigable for title based on their susceptibility to use for navigation by river boats, inflatable rafts, or canoes having a capacity for “commercial” loads of about 1000 lbs. of supplies or recreationists. *Ahtna Inc.*, 891 F.2d 1401 (Gulkana River); *Appeal of Doyon*, 86 Interior Dec. 692 (Kandik and Nation Rivers); Feb. 25, 1980 Memorandum from Regional DOI Solicitor John (“Jack”) Allen to BLM Alaska State Director re “Kandik, Nation Decision on Navigability.” See also *Alaska v. United States*, 201 F.3d 1154 (9th Cir. 2000); August 18, 1983 Recommended Decision by DOI Administrative Law Judge Luoma in *Appeal of Alaska*, Interior Board of Land Appeals No. 82-1133 (recommending that the Matanuska River be determined navigable) & July 19, 1990 Memorandum of BLM Alaska State Director E. Spang (Matanuska River is navigable), BLM Files AA-11153-23, -31; *Appeal of State of Alaska & Collier*, 168 IBLA 334 (2006) (noting navigability standards).

VI. Evidence of the Navigability of the Arolik Lake and the Arolik River System.

Historical documentation and reports regarding boat use, susceptibility of use, historical routes, and activities confirm and establish that the Arolik River System rivers and lake are navigable from the Arolik Lake downstream to the tidewaters of the Kuskokwim Bay. In addition to the water body's actual use, the materials attached to and referenced in this application document its physical characteristics. These characteristics also show the river and lake's susceptibility to navigable uses.

A. Use-in-Fact Demonstrating Navigability, including Use and Susceptibility to Use in Commerce

1. August 3, 2010 Historical Report

The State and BLM have developed a cooperative agreement whereby historical reports are prepared for rivers in Alaska. Through this arrangement, the BLM and the Alaska Departments of Fish and Game (ADF&G) and Natural Resources (ADNR) have supported ADNR's Office of History and Archeology (OHA) in preparing these reports. The first region being researched is the Kuskokwim Basin. The Arolik River Final Interim Summary Report dated August 3, 2010 is part of that Kuskokwim region reporting area. This report documents historical uses of these water bodies and is hereby incorporated as evidence of the navigability of the Arolik River system and is attached as Exhibit 2. The OHA report contains substantial historical information describing the rivers and lakes in the Arolik River System, which supports the State's assertion that these water bodies are navigable. The Arolik River Final Interim Summary Report dated August 3, 2010 included the following summary information.<sup>2</sup>

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<sup>2</sup> Attachments 7 & 8 of the Arolik River System Final Interim Summary Report dated August 3, 2010 address tidal influence.

## 2. Previous BLM Navigability Determinations

Over the years, the BLM has made a number of navigability determinations on portions of the Arolik River. In 1979, the BLM determined the Arolik River to be non-navigable in the Quinhagak village selection area.

In 1988, the BLM determined the first 2.5 miles of the North Mouth to be tidal and the first 3.2 miles of the South Mouth to be tidal. At the same time, the BLM determined that the North Mouth Arolik River was navigable in Sec. 9, T. 6 S., R. 73 W., SM, and the main stem was navigable in Sec. 24, T. 7 S., R. 72 W., SM. The agency used the one-person kayak standard and new evidence that had not been available in 1979, including NASA photographs (1982 and 1984), C. Michael Brown's regional report (1985), and interviews that the BLM had conducted regarding use of the river (1986 and 1988).

In 2006, the BLM officials reconsidered the navigability of the river and reversed the navigability determinations of 1988. The agency cited the decision of November 15, 1979, which had determined the Arolik River to be non-navigable in the Quinhagak village selection area, and stated that, since that decision had not been appealed, "it was considered final for the entire water body within the report area" (including the two portions that had not been part of the November 15, 1979, decision and were determined navigable in 1988). Although the Decision to Interim Convey identified the river as non-navigable, the native corporations were not charged acreage for the submerged lands. During survey, the Arolik River was meandered and segregated throughout the selection area. The submerged lands were not included in the patents.

The Arolik River has no whitewater or obstructions as it meanders 50 miles from the Ahklun Mountains to the sea. Water levels range from a few inches to a few feet and fluctuate during the summer, with the highest levels occurring early and late in the season. The entire river can be floated in inflatable rafts, from Arolik Lake to the mouth of the North Mouth Arolik River. Users have reported that power boats (especially boats with jet units, but also propeller boats) can travel as far upriver as river mile 31.4. During high water in the fall, power boats with hunters on board have been seen as far upriver as river mile 34, and in close to bankfull conditions, as far as the confluence of the East and South forks (river mile 37).

### Uses Before Statehood

There were three major types of use of the Arolik River prior to statehood. The first type of use prior to statehood involved Native people floating down the river after spring hunts in the mountains. Native people used dog teams (later snowmachines) to tow their boats, equipment, and supplies to their camps. These Natives hunted Parka squirrels, and other animals.. Many of the squirrel skins were traded by the Native hunters and then circulated through the local and even the international market. After break-up, the hunters loaded their snowmachines into their skiffs, along with people, equipment, meat, and skins, and then floated or motored downriver from the middle or upper reaches of the main stem through the North Mouth to Kuskokwim Bay and back to Quinhagak. Although the number of people participating in spring squirrel hunts declined after the 1950s as a result of school attendance policies, the practice of floating down the Arolik River from spring camps or motoring upriver to retrieve people from spring camps continued at least into the 1980s, as reported by Wolfe in 1984 and by Frank Matthew in 1988.

The second type of use prior to statehood involved miners using the Arolik River as a summer transportation route for access to their claims and delivery of supplies and materials between 1900 and World War II. This was documented by the USGS in a variety of reports of field investigations.<sup>3</sup>

The earliest mention of the Goodnews/Arolik Region is in USGS Bulletin 480, Mineral Resources of Alaska, 1910, by Alfred H. Brooks and Others, published in 1911. On Page 40, this report states:

In 1900 the discovery of placer gold in the Goodnews Bay region attracted a number of prospectors, but interest soon flagged and prospecting was abandoned. This region has again attracted prospectors, and it is reported that in 1910 some claims made a gold output.

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<sup>3</sup> The USGS Bulletins are available online in PDF form at the ADGGS website at the following link.  
<http://www.dggs.dnr.state.ak.us/pubs/series/usgs/bulletin>



This information is repeated and expanded upon in USGS Bulletin 520, Mineral Resources of Alaska, 1911, by Alfred H. Brooks and Others, published in 1912. On pages 40 and 41 this report states:

The reports of prospectors indicate that placer gold has been found at numerous places in a belt that stretches southwest ward from the Iditarod district to Goodnews Bay on Bering Sea... In 1910 placer gold was found in streams tributary to Goodnews Bay, a small indentation of the east shore of Kuskokwim Bay. In August 1911, workable placers were found in this district, on Butte Creek about 25 miles from tidewater. Here mining was done on four claims, which made a total output of about \$12,000. There are said to be about 20 men in the district.

Additional information is reported in USGS Bulletin 542, Mineral Resources of Alaska, 1912, by Alfred H. Brooks and Others, published in 1913, on page 47. This report states:

Another scene of active mining is on a stream called 'Orolik' River, which is said to flow into the Kuskokwim from the east near the settlement of "Quinhagak" (Kwinak) and which may be the stream marked on the official maps as Kanektok River. This is probably the same general locality as the placers which have been worked for several years in the so-called Goodnews Bay region. It is reported that a dredge is being installed in this district.

Plans for reconnaissance to the lower Kuskokwim region are reported in USGS Bulletin 592, Mineral Resources of Alaska, 1913, by Alfred H. Brooks and Others, published in 1914, pages 70 and 71.

In the lower half of the Kuskokwim basin there are many creeks on which some mining has been done, but about which there is very little information. It is planned in 1914 to investigate a part of this region, but meanwhile the writer is forced to rely on information

gleaned from various sources... About a dozen men were engaged in mining and prospecting in the Goodnews Bay region. The gravels are said to be of low tenor, but good dredging ground is reported. A little mining was done during 1913 on Butte, Snow Gulch, and Kowkow creeks, in this district, but as a rule the values are too low to permit profitable recovery with the crude methods now in use.

In 1914 USGS Geologist A. G. Maddren visited the Lower Kuskokwim area. He noted in Mineral Resources of Alaska, 1914, by Alfred H. Brooks and Others, published in 1915, that "Mining was also done... on Butte Creek, a tributary of Aalalik River." USGS Bulletin 622 Page 67. This paragraph goes on to discuss that while these operations are on a small scale, gold bearing gravels are widely distributed in the region. The general gold prospect of the Kuskokwim Valley was further discussed on Page 299:

This region appears to have been neglected as a field for prospecting during the early years of the gold excitement that centered in the Klondike and spread along various tributaries of the Yukon. It was not until the Nome boom, in Seward Peninsula, reached its height that further attention was directed toward the Kuskokwim region... Placer gold was discovered at several localities in the vicinity of Goodnews Bay, and productive mining, on a small scale, was undertaken on Butte Creek, in the basin of Aalalik River near the settlement of Quinhagak, and has been carried on for the last ten years or more.

On Pages 357 and 358, a general overview of work within the Goodnews District is described:

The chief part of the mountainous area of this district is drained by Aalalik River, a small stream which discharges into Kuskokwim Bay about 7 miles below Quinhagak." "Prospects of gold appear to be generally distributed on most of the tributaries of Aalalik River, within the mountains, 10 to 20 miles back from the coast... Productive mining has been done upon two streams in the district

up to the present time. These are Butte and Kowkow creeks. Butte Creek is a small tributary to Faro Creek a large branch of Aalalik River, about 30 miles southeast from the settlement of Quinhagak... mining has been done on Butte Creek for about ten years... Kowkow Creek is about 5 miles south from Butte Creek... One man mined on Discovery claim for about half the season of 1914. Some hand-drill prospecting was done on Faro and Trail Creeks in the summer of 1914 with the object of testing... for dredging.

In 1919, the Goodnews Bay Region was again visited by the USGS. The route traveled by the team and a section subtitled Travel and Transportation are located within the section titled Mineral Resources of Goodnews Bay Region by George L. Harrington USGS Bulletin 714 at page 211 within Mineral Resources of Alaska, 1919, by Alfred H. Brooks and Others, published in 1921. The subsection states:

Practically all supplies are landed at Bethel,... From Bethel supplies are brought down the river and bay by means of a launch to Kwinak,... Supplies for the Arolic basin are brought from Kwinak either by poling boat in the summer or by dog sled in the winter and early in the spring.

Further in the document in the Economic Geology, History of Mining section, at page 221 - 227, Harrington states:

However, a small production by a few men continued to be made yearly on Butte Creek and some mining was done on Fox and Snow gulches and on Trail, Kowkow, and numerous other creeks... The first production of gold on this creek (Kowkow) was made in 1913, and a number of claims on it have been held ever since.

In 1931, Reed said that equipment and most supplies bound for the gold fields in the Arolik River area were shipped overland in winter from Quinhagak, while accessory supplies were shipped in by poling boat up the Arolik. He believed

that even if future overland routes were constructed for freighting heavy equipment, poling boats and outboard motorboats would continue to be used for light supplies and perishables. “

From Kwinak, a small outboard motorboat may be taken along the coast and up the north mouth of the Arolik River as far as the mouth of Bessie Creek in the lowest stage of water. In high water it is possible to take a boat up the Arolik to the mouth of Faro Creek.

MR 101-02, Page 5. This report then goes on to describe the claims in the Goodnews and Arolik area that are being worked in 1931. The streams being mined within the Arolik drainage discussed in this document are Butte Creek, Kowkow Creek, Trail Creek, Faro Creek, Fox Creek, Deer Creek, Snow Gulch, and Arolik River.

In the late 1930s, miners began using a summer route from Goodnews Bay to the Arolik basin to freight equipment and supplies using a caterpillar tractor. From that time on, most supplies and equipment have been taken to the mines overland or by airplane. The relative proportions of materials that were shipped overland or by boat up the Arolik River from the 1900s through the 1930s are unknown. Calista Corporation, which has been promoting mining in the Arolik basin, stated in 1989 that the Arolik River was navigable to river boats and that a tractor trail led from the river to prospect sites on tributaries of Faro Creek.

The third type of use prior to statehood involved local Natives ascending the river in boats with outboard motors each year to access exclusive use areas (later identified as Native allotments), where resources were seasonally abundant. Those locations are along the North Mouth and main stem Arolik River between river mile 0 and river mile 31.4, on the South Mouth Arolik River between river mile 0 and river mile 3. In the 1950s and earlier, the Native people engaged in traditional subsistence activities—fishing, hunting, trapping, and berry picking—at those sites during the open season.

## Uses Since Statehood

There have been three major types of use of the Arolik River since statehood. The first type of use since statehood involves Native people from Quinhagak traveling up the North Mouth Arolik River, the main stem, and the South Mouth in wooden or aluminum skiffs with outboard motors to use their Native allotments for subsistence fishing, hunting, trapping, and berry picking. The Native allotments are located between river mile 0 of the North Mouth and river mile 31.4 of the main stem, along the South Mouth between river mile 0 and river mile 3. In the fall when rainstorms raise the water level, Native caribou hunters have traveled even farther upriver by boat for caribou hunting through the North Mouth and into the upper main stem, as far as river mile 34 during periods of ordinary water that occur in the fall and to river mile 37 during conditions of high water.

The second type of use since statehood involves federal and state government sponsored float and power boat trips to study the river's physical characteristics and fish populations. Kenneth Alt, the first researcher to study the Arolik River, floated the river in 1976. Other scientific parties of three or more people each made at least a dozen float trips down the river during the 1990s. The researchers studied fish populations as they floated in rafts 9 to 13-feet long from Arolik Lake through the East Fork, main stem, and North Mouth to tidewater. The float trips lasted up to six days. The researchers used commercial drop-off services at Arolik Lake and pick-up services at the river mouth.

The third type of use since statehood involves guided and unguided recreational use of the Arolik River, using power boats and rafts. Sport fishing accounts for most of this use, although there are other types of recreational use, including hunting, wildlife viewing, photography, and wilderness camping. In the 1980s, commercial operators told BLM interviewers that they used 15-foot, 16-foot, and 18-foot jet boats to take clients to fishing areas on the North Mouth Arolik and on the main stem as far upriver as the mountains at the eastern edge of T. 7 S., R. 72 W., SM (river mile 31.4). Guide services made daily trips upriver with clients during the summer months. Some clients engaged in hunting, wildlife viewing, or photography, as well as sport fishing. Some commercial operators arranged with the Native corporations to operate



base camps on Native lands along the North Mouth Arolik River in the vicinity of the mouth of Bessie Creek, from which they took clients upriver to fishing areas. Others entered into partnerships with Native corporations or other Native organizations. Some Native people from Quinhagak have offered pick-up services for rafters or have guided clients on the Arolik River. Guided or unguided raft trips are made for the purposes of recreational sport fishing, wildlife viewing, photography, and wilderness camping. Raft trips down the Arolik began as early as 1975 and have continued to the present day.

Typically, rafters are dropped off by a float plane at Arolik Lake and float down the East Fork, main stem, and North Mouth to tidewater. According to a February 16, 2007 Water Body Use Questionnaire, and the Wild River Guides website, they offer float trips that begin at a small lake near Crater Creek, several miles up the South Fork. After being dropped off by DeHaviland Beaver all boats and gear are then portaged to the confluence of the South Fork and Crater Creek. They then float down the South Fork, the main stem, and the North Mouth to tidewater. The questionnaire states that the first trip down the South Fork by Wild River Guides was August 4 through August 10, 2003 with Mr. Richard Voss, manager of the Arctic National Wildlife Refuge. Many of the season reports/river logs online at Wild River Guides website describe commercial float trips on the South Fork Arolik in subsequent years. The remote nature of the Arolik River and lack of road access have created a market for commercial outfitters, who offer guiding services, drop-off and pick-up services, equipment rentals, and logistical support to rafters. See additional documents and excerpts of documents related to the Arolik River System water bodies attached as Exhibit 3.

These sources demonstrate that polling boats in support of pre-statehood mining were taken up the Arolik River at least to Deer Creek, and up Faro Creek to Trail Creek. Pre and post statehood Native use is documented from tidewater on the North Mouth upstream to the confluence of the East Fork and South Fork Arolik River. Post statehood guided commercial rafting occurs on Arolik Lake downstream on the East Fork and on the South Fork from its confluence with Crater Creek downstream to the Main Stem and to tidewater. Besse Creek is used by a Native allotment holder for subsistence purposes at least to the allotment at RM 5.5 and does not experience a character change until Magaktlek Creek at RM 9.

## B. Physical Character Supporting Navigability

The courts and the Department of the Interior have also considered the physical characteristics of the river system in its natural and ordinary condition in their navigability determinations. *See, e.g., Ahtna Inc.*, 891 F.2d at 1402, 1405; *Alaska*, 662 F. Supp. at 466-67; *Appeal of Doyon*, 86 Interior Dec. 692. The physical characteristics of the Arolik River system compare favorably to the Gulkana, Kandik, and Nation rivers considered in those decisions.

1. River. Arolik River including East Fork Arolik River, South Fork Arolik River, Arolik River, North Mouth Arolik River and South Mouth Arolik River, Variant names Aalaik, Arolic River, Arolic Creek, and Kwiyaadik Creek

Location of the confluence of Kuskokwim Bay and the North Mouth Arolik River:

Latitude 59° 41' 42" N

Longitude 161° 53' 02" W

Location of the confluence of Kuskokwim Bay and the South Mouth Arolik River:

Latitude 59° 40' 27" N

Longitude 161° 52' 32" W

Major lake: Arolik Lake

Basin area: 521 square miles

Elevation at source: 468 feet (Arolik Lake)

Main Channel Length: 48 miles (Arolik Lake to Tidewater via North Mouth)

Average Channel Slope: 9.75 feet/mile

2. Climate. The Arolik River system is within the transitional climate zone, which is between maritime and continental climatic zones. This transition zone in the Yukon-Kuskokwim Delta area extends 100 to 150 miles inland.<sup>4</sup>

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<sup>4</sup> Harza Engineering Company, December 1982, Bethel Area Power Plan Feasibility Assessment, Appendix B

No weather-gathering stations are located with the Arolik River watershed. The nearest station is located at Platinum which is approximately 40 miles southwest of Arolik Lake and approximately 48 miles South from North Mouth Arolik River. The most up to date summary data from the Platinum weather station (Table 1) is provided below.<sup>5</sup>

Table 1 Platinum Weather Station Summary, 507365, Period of Record: 9/2/1949 to 6/30/1964

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	20.7	21.0	24.9	32.8	44.6	53.2	57.5	56.5	51.8	39.9	30.0	19.4	37.7
Average Min. Temperature (F)	7.2	7.2	10.8	20.2	32.9	40.9	45.7	46.8	40.4	29.0	19.2	6.7	25.6
Average Total Precipitation (in.)	1.0	1.26	1.37	1.16	1.35	1.42	2.32	4.7	3.92	2.42	1.61	1.37	23.9
Average Total Snowfall (in.)	6.2	8.4	10.7	2.9	.4	0	0.0	0.0	0.0	.8	3.9	5.3	38.6
Average Snow Depth (in.)	4	5	7	5	1	0	0	0	0	0	0	2	2

3. General Basin Description. Arolik Lake is located at an elevation of approximately 468 feet above sea level in the Ahklun Mountains. The East Fork Arolik River sources at Arolik Lake. The headwaters of the South Fork Arolik River flow from north of Tatlignagpeke Mountain at approximately 1600 feet above sea level.<sup>6</sup> The Arolik River system drains an area of 521 square miles. Flowing in a northwesterly direction, the Arolik River flows approximately 48 miles from Arolik Lake to where the North Mouth Arolik River flows into the Kuskokwim Bay. A map of the watershed area and UFWS gage are shown in Figure 1.

<sup>5</sup> Western Regional Climate Center, Historic Climate Records, Retrieved 1/10/11 & 12/3/2008, <http://www.wrcc.dri.edu/summary/Climsmak.html>

<sup>6</sup> Navigable Waters Map; <http://dnratwmlwims01/navwatersmap/>



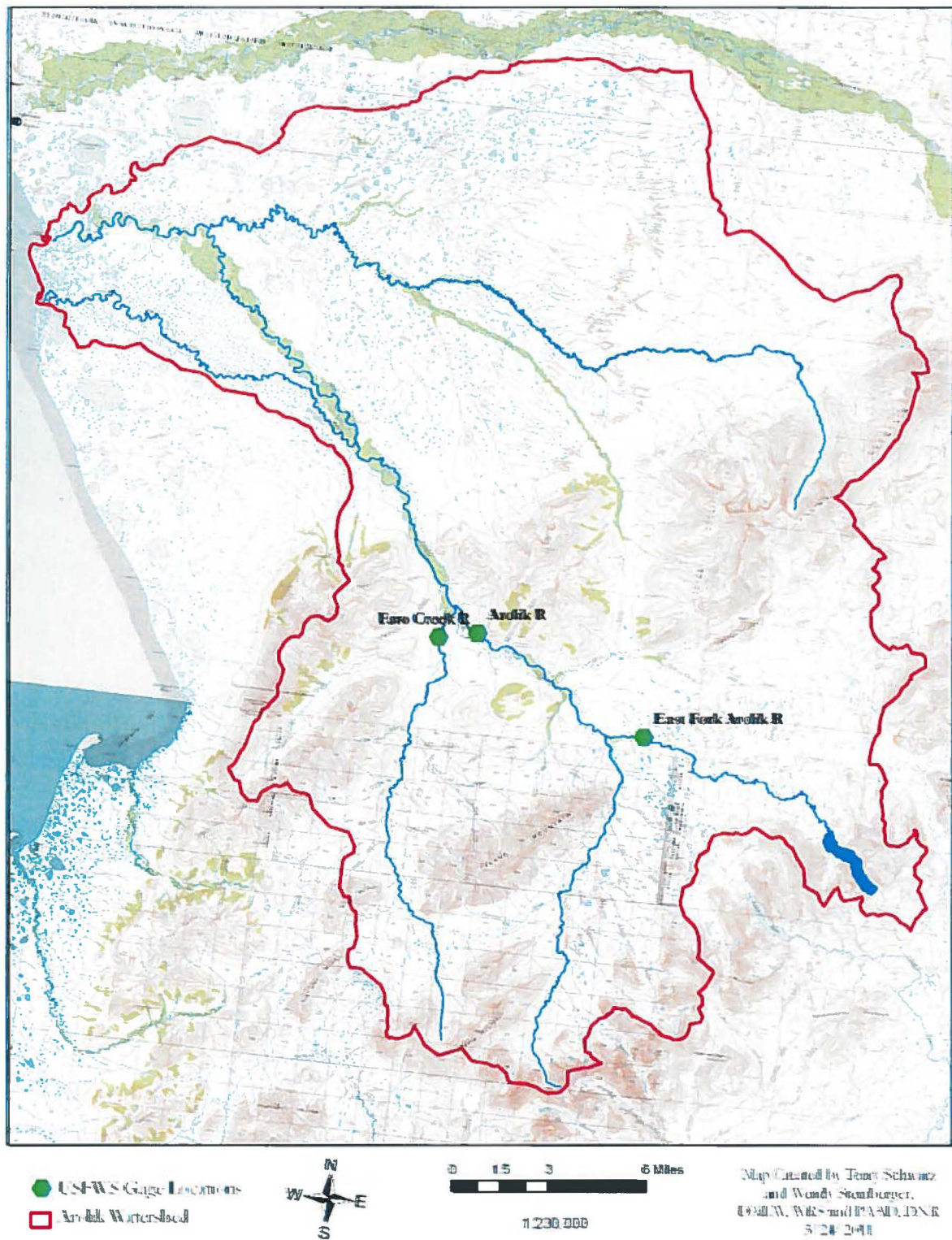


Figure 1 Map of the Arolik Watershed and Location of USFWS stream gages

4. Available Stream Flow Data. The United States Fish and Wildlife Service (USFWS) installed and maintained three stream gages within the Arolik River Watershed (table 2)<sup>7</sup> Currently, gage data are not available from USFWS. USFWS staff expect to begin analyzing the raw data at a later date.

Table 2 List of FWS stream gages with in the Arolik River Watershed

Name	Lat	Long	Area (mi <sup>2</sup> )
Arolik River	59°32.66'	161°27.27'	154
East Fork Arolik River	59°30.375'	161°17.86'	34.5
Faro Creek	59°32.44'	161°29.29'	64.9

The Alaska Department of Natural Resources, Public Access Assertion and Defense Unit staff collected hydrological data from four key points in the Arolik Basin on June 3 and 4, 2008. Table 3 lists the locations, watershed area and collected flow readings. Figure 2 shows the locations where flow and cross section data were collected.

Table 3 List of PAAD hydrologic data collection points from June 3 and 4, 2008 field investigation in the Arolik River Watershed

Name	Lat	Long	Area (mi <sup>2</sup> )	Flow (cfs)
Arolik River	59°32.632'	161°27.369'	154	985.22
Faro Creek	59°32.44'	161°29.29'	64.9	428.2
East Fork at Arolik Lake Outlet	59°28.428'	161°7.386'	7.75	78.88
East Fork & South Fork Arolik River Confluence	59°30.342'	161°20.004'	90.11	673.44

<sup>7</sup> USFWS Alaska Region, Realty & Natural Resources, Water Resources, Togiak National Wildlife Refuge, Togiak NWR Stream Discharge Data. <http://alaska.fws.gov/water/togiak.htm>



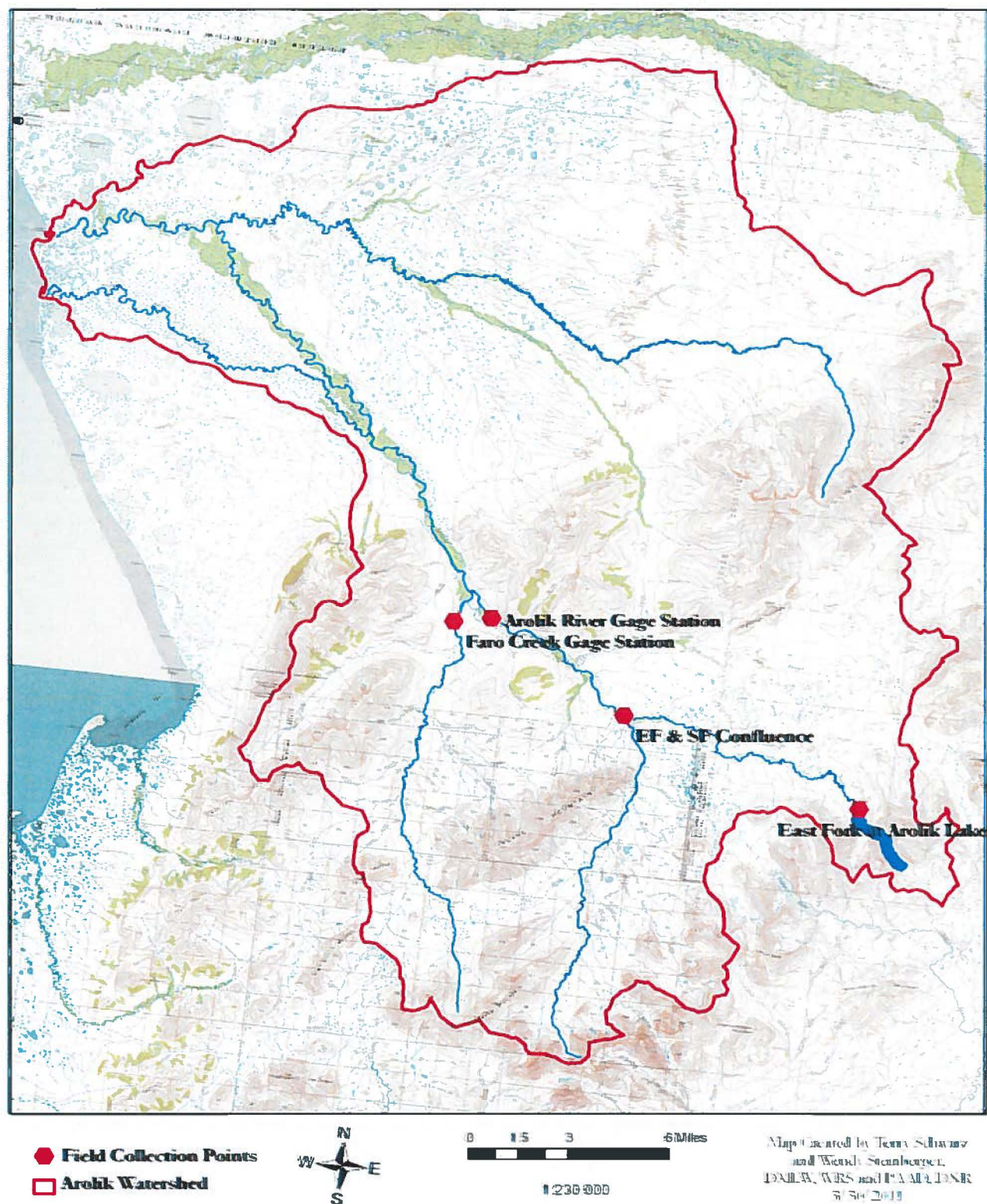


Figure 2 Map of the Arolik Watershed and Location of the PAAD Hydrologic Data collection Points, June 3 and 4, 2008

The Arolik River flows northwesterly from the Ahklun Mountains to Kuskokwim Bay for a distance of approximately 50 miles.<sup>8</sup> For most of that distance, its current is moderate, and its bottom is composed mainly of gravel. Its width varies from less than 20 feet to about 200 feet, and its depth ranges from a few inches to a few feet. William Lyle, the operator of a sport fishing camp on the Arolik River, described the Arolik as “a beautiful, gentle river” with no whitewater.

The two sources of the Arolik River—the East and South forks—originate in mountainous terrain and then enter an upland plain. After traversing this plain for a distance of 12 river miles for the East Fork and 15 river miles for the South Fork, the forks join at river mile 37 to form the main stem Arolik River. About three river miles below that juncture, the river enters a broad valley between low mountains ranging in height from 1,000 to 2,000 feet. After flowing for 7.5 river miles, the river emerges from the mountains at about river mile 26.5. From that point to the sea, it meanders gently across low, nearly flat tundra. At approximately river mile 22, the main stem Arolik River diverges into two mouths, the North Mouth and the South Mouth, which then meander across the tundra before entering Kuskokwim Bay at a distance of two miles from one another.

### **Arolik Lake**

The lake is 2.3 miles long and 0.4 mile wide. It is located at an elevation of 470 feet and is tightly ringed by mountains. Arolik Lake ranges from 10 to 185 feet deep. Vegetation surrounding the lake consists of alpine tundra with a few willows along its inlet and outlet streams.

### **East Fork**

The East Fork Arolik River heads in Arolik Lake. Just below the lake, the river is reported to be swift where it passes through a shallow canyon. In its upper six miles, the East Fork flows slowly through braided, meandering channels beneath overhanging willows. People who have floated the river in July reported shallow water in the East Fork, as river levels are normally at their

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<sup>8</sup> Different sources estimate the length of the river at 50 to 69 miles. The length of the Arolik River and the river miles used in this report are based on GIS calculations using the National Hydrography Data Set derived from U.S. Geological Survey quadrangle maps.

lowest point of the summer. The highest levels typically occur during June (as a result of snowmelt) and in August and September (as a result of rainfall).

### **Main Stem**

The main stem Arolik River begins at river mile 37, where the East and South forks converge. It flows 15 miles before dividing into the North and South mouths at river mile 22. It has been described as having “a relatively straight channel, swift current, willow band along shore, clear water and a clean gravel bottom.” Its channel is reported to range from “one to three feet deep and deeper in pools.” There are some rocks and shallow spots. From the confluence of the East and South forks to Kuskokwim Bay, the river is mainly a “meandering, slightly braided and gently flowing river.”

The upper portion (river miles 34-37) of the main stem Arolik River is swift, with a bottom of large gravel and rocks. Three miles below the junction of the East and South forks, at about Mile 34, the river enters a broad valley between low mountains. There it has an average width of 120 feet and an average depth of 14 inches. Velocity in this section in July was measured at 5.26 fps with a flow of 720 cfs. The river bottom through the upper end of the main stem (river miles 34-37) is composed mainly of course gravel, along with 10% sand and 20% rock and rubble.

Two large tributaries and several smaller ones empty into the main stem Arolik River in its mountainous middle section. The large tributaries are Keno Creek and Faro Creek. Keno Creek joins the main stem Arolik River from the right, at approximately river mile 34; Faro Creek enters from the left at river mile 29.5. Keno Creek has been described as clear, about 20 feet wide and 4 inches deep, with a velocity of approximately 3 fps and a bottom composed of fine and medium gravel.” Faro Creek is considerably larger than Keno Creek and has larger gravel in its bed.

The main stem Arolik River is relatively wide and unobstructed in its lower 9.5 miles. It reaches widths of three chains or wider in T. 7 S., R. 72 W., SM (between river miles 24.5 and 31.4). At about river mile 27, the main stem slows considerably in its lower section (Figure 8), and the gravel on the river bottom becomes finer, with no rocks or rubble (10% sand, 30% fine gravel, 50%



medium gravel, and 10% coarse gravel). In Sec. 30, T. 6 S., R. 72 W., SM, about 22 miles upriver from Kuskokwim Bay, the main stem Arolik River splits into two distributaries. The North Mouth—the larger of the two—carries 70% of the Arolik River's flow, and the South Mouth carries the remaining 30%. The character of the lower 4.5 miles of the main stem, from the point where the river comes out of the mountains at about river mile 27, has been described as similar to the upper 12.5 miles of the North Mouth. From the mountains downstream to the mouth of Bessie Creek at Mile 9.5, the Arolik is a clear water river with a channel one to three feet deep and holes 15- to 20-feet deep in places. A BLM review of a NASA photograph (August 1982) reported in a March 29, 1988, navigable waters memo stated that the photo showed that the North Mouth Arolik River “exhibits a gently meandering, clear, slightly braided channel similar to that of the mainstream Arolik over its entire course.”

### **North Mouth**

The North Mouth Arolik River flows for 22 miles over a broad, flat coastal plain to Kuskokwim Bay. It has a clear, gently meandering, slightly braided channel with a gradient approaching five feet per mile. Most of the North Mouth Arolik River is less than three chains wide. Its depth has been estimated at 2-3 feet at most.

The upper North Mouth, to just below Bessie Creek has a current averaging 2 mph and a bottom composed of 20% sand and silt, and 80% gravel, most of it fine. The streambed meanders considerably and is characterized by braided channels. Thick bands of willows line the banks. A width of 25-50 feet—with a sufficient volume of water for boats—was reported at river mile 15.5.

The lower North Mouth Arolik River is considered to be quite different from the portion above Bessie Creek. Below Bessie Creek, the North Mouth slows down and flattens out, flowing between banks covered mainly with tall grass. The river bottom is composed of mud and fine gravel. “Big prop boats” can make use of the lower section of the river. Its width reaches 200 feet, especially in the portion that is under tidal influence. Tidal influence has been estimated to extend for a distance of two to ten miles. In 1921, George L. Harrington of the USGS reported that the lower reaches of the Arolik River were tidal and that ascents of the river were usually undertaken during the flood tide so as to avoid the “appreciable current on the ebb or slack tide.” He described the

lower portions of the river as “relatively sluggish” with a “tortuous” channel. The water level of the North Mouth Arolik River fluctuates for reasons other than the tides. Heavy rains that normally occur over a two-week period in August and September, for example, can cause the river to remain high for two to three days.

#### 5. Review of Existing Hydrologic and Onsite Studies.

The Arolik River System is located in the Kuskokwim Delta region within Zone 1 of Hydrologic Unit Code (HUC) 30502 (Figure 2).

In addition to the description and history in the OHA Final Interim Reports, attached as Exhibit B, additional documents describe the characteristics and use of the Arolik Lake and River System. These documents, such as the Alaska Department of Fish and Game Inventory and Cataloging of Sport Fish and Sport Fish Waters of Western Alaska, (Alt)<sup>9</sup>, and the US Fish and Wildlife Service’s Togiak Refuge Comprehensive Conservation Plan, are attached as Exhibit C.

#### VII. Other Known Interested Parties

Parts of this river system are within the exterior boundaries of the Togiak NWR, which is managed by the USFWS. Qanirtuuq Village Corporation and the Calista Regional Corporation also own uplands within this area.

#### VIII. \$100.00 Application Fee

The State provided the \$100.00 application fee on September 14, 2016.

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<sup>9</sup> Alt, Kenneth T, 1977, Inventory and Cataloging Western Alaska Waters, Alaska Department of Fish and Game, Sport Fish Division.



## IX. Conclusion

The State of Alaska has determined there is sufficient evidence to conclude the water bodies of the Arolik River system, as described in section I of this application are navigable waterways. Therefore, the submerged lands and beds underlying these water bodies are owned by the State of Alaska and should be disclaimed by the BLM on behalf of the federal government.

The evidence of tidal influence near the Kuskokwim Bay, extensive historical and present use information which shows the river's use and susceptibility to use as a highway of commerce at the time of statehood as described in this application, OHA Interim Reports, and additional exhibits all support this conclusion.

Exhibits 2 and 3 to the Draft Arolik River System remain unchanged. Please replace the draft application with the final application in your files.

The state agency responsible for this application is the Alaska Department of Natural Resources, Division of Mining, Land and Water, 550 W. 7<sup>th</sup> Avenue, Suite 1070, Anchorage, Alaska 99501, Attention: Kevin Sorensen, (907) 269-6008. Please start the application process for this river and forward the estimate of cost of administration.

Sincerely,



James H Walker  
Chief Public Access Assertion and Defense Unit

Attachments: Exhibit 1: Map and Legal Description

cc: Gregory Siekaniec, Regional Director, USFWS  
Sam Cotten, Commissioner, Alaska Department of Fish and Game  
Andrew J. Guy, President and CEO, Calista Corporation<sup>10</sup>  
Grace Hill, President , Qanirtuuq Inc.<sup>11</sup>

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<sup>10</sup> This recipient was provided only with a copy of the application filed with BLM. Copies of the map(s) for the water bodies and any historical documents referenced in support of this application can be obtained via DNR's website (<http://www.dnr.state.ak.us/mlw/nav/rdi/>) or the Bureau's website (<http://www.blm.gov/ak/st/en/prog/rdi.html>). If you are unable to access these websites or are unable to download the information, please feel free to contact Wendy Steinberger at (907) 269-6018 for a copy of the information through the mail.

11. Ibid.

## Arolik RDI Application: Legal Description

Arolik Lake and the East Fork Arolik River from the outlet of Arolik Lake downstream to the confluence with the South Fork Arolik River; The main stem Arolik River within Township 7 South, Range 71 West, Seward Meridian within the State of Alaska, more particularly described as follows:

### Arolik Lake:

All Submerged Lands below the Ordinary High Water Line of Arolik Lake within the following townships and ranges in the Seward Meridian as determined from Alaska USGS 1:63 360 series topographic map Goodnews Bay B-6 (1954):

#### MTRS

S008S069W30  
S008S069W19

S008S070W25  
S008S070W24

S008S070W23

### East Fork Arolik River:

All submerged lands between the ordinary high water lines of the left and right banks of the East Fork Arolik River from the outlet of Arolik Lake, within the NW $\frac{1}{4}$ NW $\frac{1}{4}$  Section 24, Township 8 South, Range 70 West, Seward Meridian downstream to its confluence with the South Fork Arolik River within NE $\frac{1}{4}$ NE $\frac{1}{4}$  Section 10, Township 8 South, Range 71 West, Seward Meridian and within the following townships and ranges in the Seward Meridian as determined from Alaska USGS 1:63 360 series topographic map Goodnews Bay B-6 (1954); Goodnews Bay B-7, (1954, Minor Revision 1984); Goodnews Bay C-6, (1954); Goodnews Bay C-7, (1954):

#### MTRS

S008S070W24  
S008S070W23  
S008S070W14  
S008S070W15  
S008S070W16

S008S070W09  
S008S070W08  
S008S070W17  
S008S070W07  
S008S071W12

S008S071W01  
S008S071W02  
S008S071W11  
S008S071W03  
S008S071W10

The precise location may be within other sections and townships due to the ambulatory nature of water bodies.

### Arolik River Main Stem:

All submerged lands between the ordinary high water lines of the left and right banks of the Arolik River, within the Township 7 South, Range 71 West, Seward Meridian and within the following townships and ranges in the Seward

Meridian as determined from Alaska USGS 1:63 360 series topographic map  
Goodnews Bay C-7, (1954):

MTRS

S007S071W33

S007S071W32

S007S071W29

S007S071W30

The precise location may be within other sections and townships due to the  
ambulatory nature of water bodies.