FP25-11 Executive Summary	
General Description	Proposal FP25-11 requests to allow dip nets, beach seines, and drift gillnets to harvest salmon in the Bristol Bay Area. *Submitted by: Bristol Bay Native Association.*
Proposed Regulation	***§___.27(e)(5) Bristol Bay Area*** *(iv) Unless otherwise specified, you may take salmon by* ***dip net, beach seine, and*** ~~*set*~~ *gillnet only.*
OSM Conclusion	**Support** Proposal FP25-11 **with modification** to allow the use of dip nets and beach seines to harvest salmon in the Bristol Bay Area, and for drift gillnets, align Federal regulations with State regulations in the Lake Clark area. The modified regulation should read: ***50 CFR 100.27(e)(5) Bristol Bay Area*** . . . *(iv) Unless otherwise specified, you may take salmon by set gillnet,* ***beach seine, and dip net.*** . . . *(D) You may also take salmon by beach seines not exceeding 25 fathoms in length* ***and by drift gillnets*** *in Lake Clark* ***and Sixmile Lake****, excluding tributaries.*
Bristol Bay Subsistence Regional Advisory Council Recommendation	**Support** as **modified by OSM**
Interagency Staff Committee Comments	The Interagency Staff Committee found the analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and the Federal Subsistence Board action on this proposal.
ADF&G Comments	**None**
Written Public Comments	**None**

STAFF ANALYSIS
PROPOSAL FP25-11

ISSUES

Proposal FP25-11, submitted by the Bristol Bay Native Association, requests to allow dip nets, beach seines, and drift gillnets to harvest salmon in the Bristol Bay Area.

DISCUSSION

The proponent states that legal harvest methods allowed for subsistence salmon fishing in Federal regulations are more restrictive than in State regulations for waters in Bristol Bay. Adding the proposed language more closely aligns Federal and State subsistence regulations among areas such as Sixmile Lake, Lake Clark, Igushik River, Weary River, and Snake River.

Existing Federal Regulations

> ***50 CFR 100.27(e)(5) Bristol Bay Area***
>
> . . .
>
> *(iv) Unless otherwise specified, you may take salmon by set gillnet only.*

Proposed Federal Regulations

> ***§___.27(e)(5) Bristol Bay Area***
>
> . . .
>
> *(iv) Unless otherwise specified, you may take salmon by* ***dip net, beach seine, and*** ~~***set***~~ *gillnet only.*

Relevant Federal Regulations

See **Appendix 1**.

Existing State Regulations

> ***5 AAC 01.320. Bristol Bay Area - Lawful gear and gear specifications***
>
> . . .
>
> *(b) Outside the boundaries of any district and within the Naknek, Alagnak, and Wood River special harvest areas, salmon may only be taken by set gillnet, except that salmon may also be*

taken by dip nets in the waters described in 5 AAC 01.310(d)[1] *fishing other than from a vessel, and salmon may also be taken as follows:*

(1) in the Togiak River,

(A) excluding its tributaries, by spear;

(B) between the mouth of the river and upstream approximately two miles to a line across the river at 59° 05.50′ N. lat., by a drift gillnet that is not more than 10 fathoms in length;

. . .

(5) by spear in Lake Clark, excluding its tributaries;

(6) by gillnet and beach seine in Iliamna Lake, Six Mile Lake, and Lake Clark;

(7) by dip net in the Igushik, Weary, and Snake Rivers upstream of the commercial fishing district; a dip net may not be operated from a vessel.

5 AAC 01.330 - Subsistence fishing permits

(a) Salmon may only be taken under authority of a subsistence fishing permit.

Extent of Federal Public Lands/Waters

For purposes of this discussion, the phrase "Federal public waters" is defined as those waters described under 36 CFR 242.3 and 50 CFR 100.3. Federal public waters of the Bristol Bay Area comprise fresh waters within and adjacent to the Togiak National Wildlife Refuge, Alaska Peninsula National Wildlife Refuge, Becharof National Wildlife Refuge, Alagnak Wild and Scenic River corridor, Katmai National Preserve, and Lake Clark National Park and Preserve. Katmai National Park is closed to subsistence uses. On general domain lands managed by the Bureau of Land Management in the Bristol Bay Area Federal subsistence regulations apply only to non-navigable waters (**Figure 1**). Bristol Bay commercial fishing districts are not within Federal subsistence fisheries management jurisdiction.

Customary and Traditional Use Determinations

Residents of the Nushagak District and the freshwater drainages flowing into the district have a customary and traditional use determination for salmon in the Nushagak District including drainages flowing into the district (see **Figure 2**).

[1] This area is not within Federal subsistence fisheries management jurisdiction.

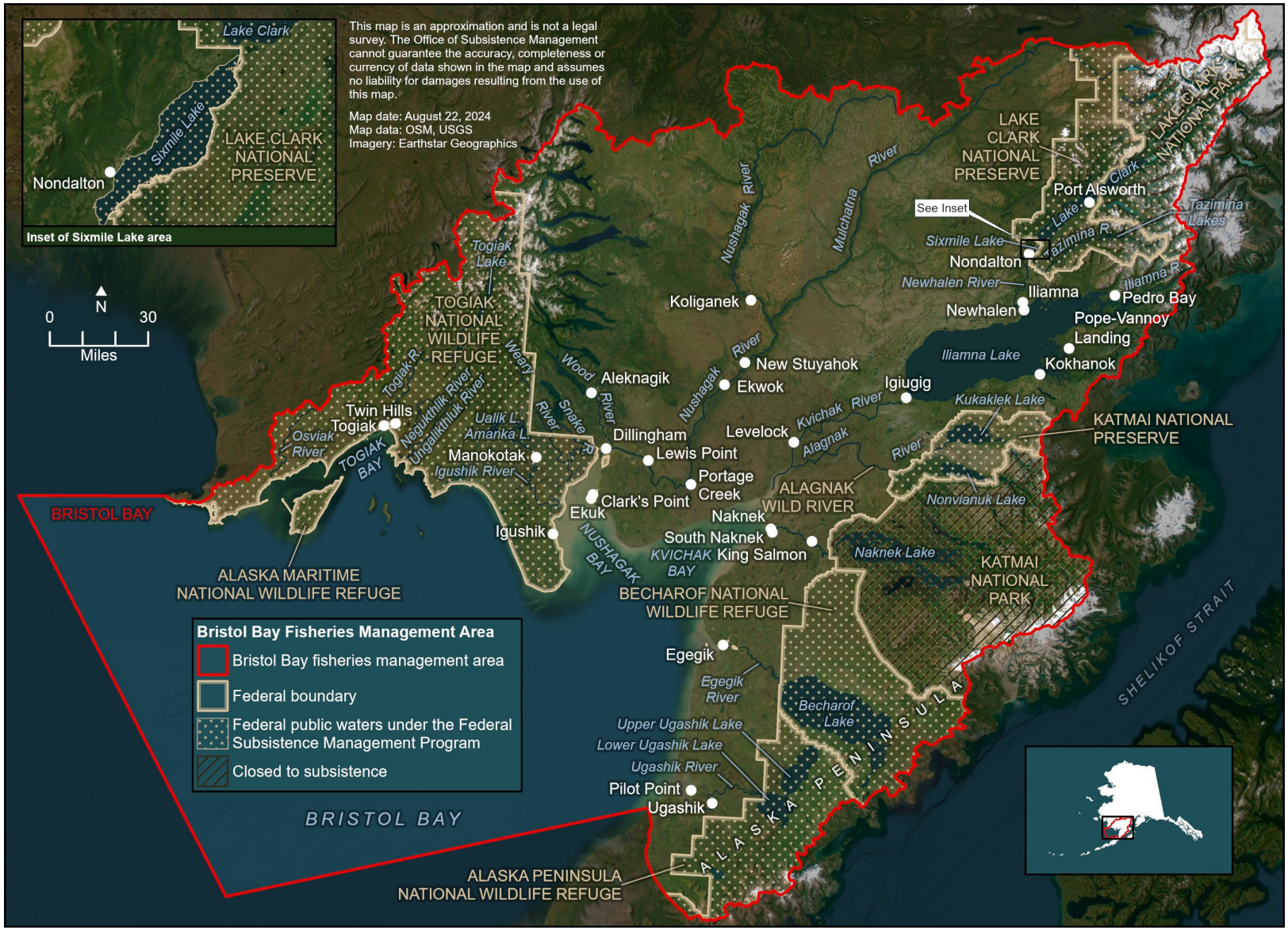

Figure 1. Map of the Bristol Bay Fisheries Management Area.

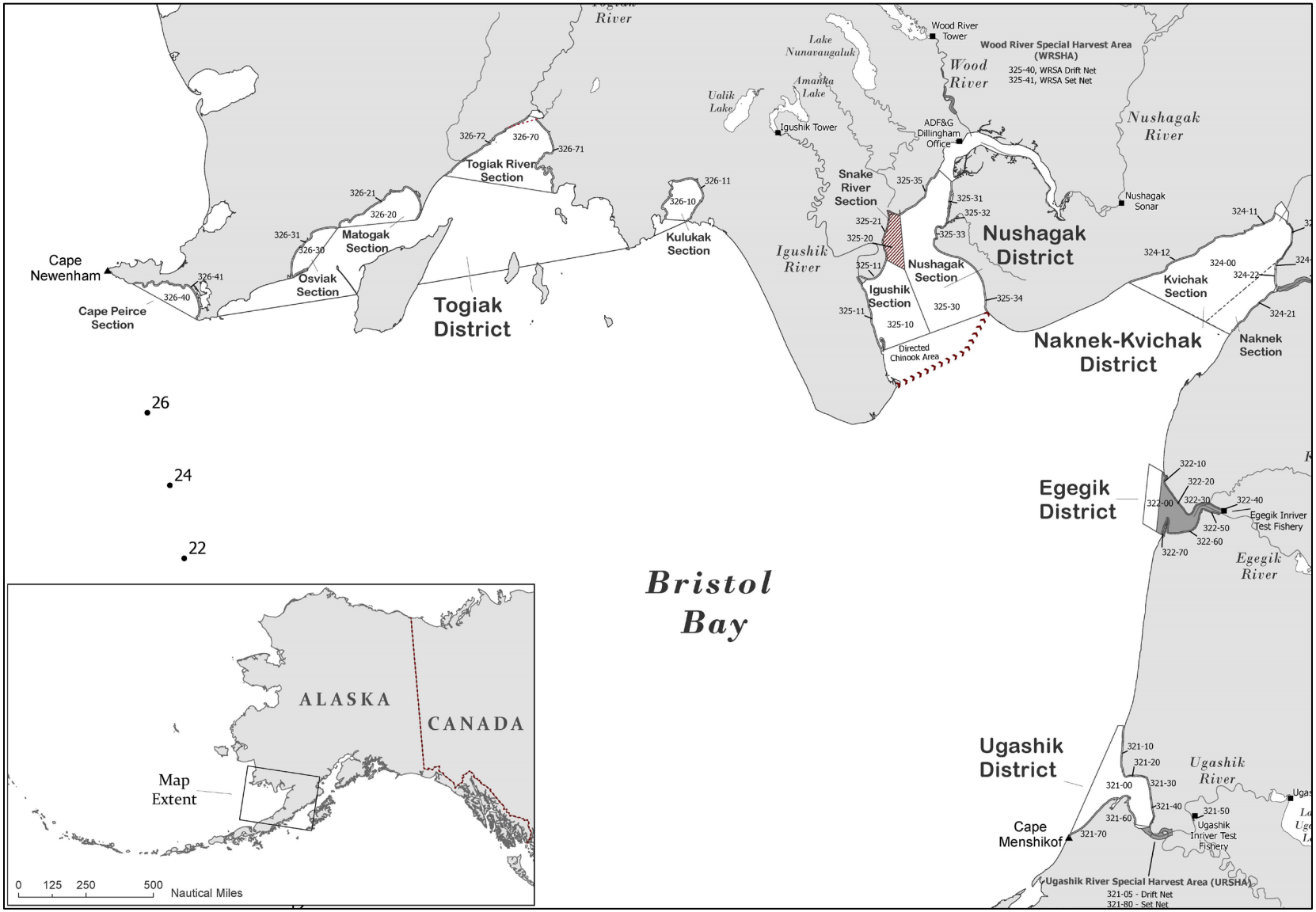

Figure 2. Map of the Bristol Bay Salmon Commercial Fishing Districts (ADF&G 2024)

Residents of the Naknek and Kvichak river drainages have a customary and traditional use determination for salmon in the Naknek River drainage.

Residents of the Kvichak River drainage have a customary and traditional use determination for salmon in the Kvichak River drainage.

Residents of the Togiak District, freshwater drainages flowing into the district, and the community of Manokotak, have a customary and traditional use determination for salmon in the Togiak District, including drainages flowing into the district.

Residents of South Naknek, the Egegik District, and freshwater drainages flowing into the district have a customary and traditional use determination for salmon in the Egegik District, including drainages flowing into the district.

Residents of the Ugashik District and freshwaters drainages flowing into the district have a customary and traditional use determination for salmon in the Ugashik District, including drainages flowing into the district.

Residents of the Bristol Bay Area have a customary and traditional use determination for salmon in the remainder of the Bristol Bay Area.

Regulatory History

Background

Drift gillnets, beach seines, and dip nets were used traditionally to harvest salmon, and Bristol Bay communities continue to do so today. The Bristol Bay area is unique in that it has some of the world's largest salmon runs, which attracted the commercial fishing industry early, a major agent of change in the area (Elison et al. 2024). The first Bristol Bay canneries were built along Nushagak Bay in the 1880s, and canneries were built in short order in the Naknek, Egegik, and Ugashik areas, and finally the Togiak area in the 1950s. A few residents worked in the processing sector at salteries and canneries but were not fully integrated into the commercial fishing industry until after World War II. The number of residents in the commercial fishing industry increased from the 1950s through the 1970s when most families in the area were involved in commercial fishing in some way. The commercial fishery targeted primarily the large Sockeye Salmon runs and the Chinook Salmon run into the Nushagak River drainage (Wolfe et al. 1984, Nelson 1987).

A look at the regulatory history of salmon subsistence regulations in the Bristol Bay area is not complete without looking at the society that existed when they were adopted. The twentieth century for the Indigenous people of Alaska was a struggle for civil rights, rights to their land and against Indigenous reservations, for statehood to protect salmon from overharvest by outside interests and domination of the work force by cannery worker unions in Seattle and San Francisco, and education in villages equal to that provided in predominately White settlements.

In the 1880s, Alaska Natives were not citizens of the United States, and Alaska was legally segregated with Alaska Natives disenfranchised in similar ways as Blacks in the American South with the same sentiments and derogatory nomenclature. Segregation was most pronounced in White settlements but existed throughout the state. Additionally, Alaska Natives in Bristol Bay were barred from commercial salmon fishing and cannery work, except during the peak of the season when canneries could not keep up with harvest. The needs of Alaska Natives were not considered in regional economic policy making (Cole 1992).

The Federal Government however did consider Indigenous people when adopting regulations that prevented the fishing industry from cutting residents off from their traditional fishing practices, called "personal use" at the time. The taking of salmon for local food requirements or for use as dog food (subsistence) that could not be prohibited in any way was enacted at the same time Native Americans throughout the United States were granted citizenship in 1924. All methods and gear types were legal. At the time, government officials had little knowledge of traditional subsistence practices and patterns (Nelson 1987, Seitz 1990, Cole 1992).

Alaska Natives were second-class citizens in their own land as demonstrated by the cavalier attitude of the Federal government towards the welfare of the Aleut people during World War II. This combined with widespread knowledge of European "race" laws in the 1930s contributed to changing attitudes in Alaska. In 1945 the Alaska territorial legislature passed an anti-discrimination bill officially abolishing Jim Crow practices (Cole 1992). The 1970s and 1980s saw the passage of ANCSA that settled land claims of the Indigenous people of Alaska, the "Molly Hootch" decision requiring the State government to fund high schools in villages so that children did not have to attend boarding schools (Cotton 1984), and ANILCA Title VIII that put a rural subsistence priority into law. ANILCA Title VIII is part of a continuous Indigenous struggle for self-determination.

Labor shortages during and after World War II, the Chinese Exclusion Act, and reduced profits contributed to the commercial fishing industry integrating Indigenous people into both its processing and fishing sectors (Wolfe et al. 1984, Cole 1992). Subsequently, U.S. Fish and Wildlife Service managers assumed most people were retaining salmon they needed for personal use from their commercial catches, that most of these salmon were going to feed dogs, and residents were relying on cash incomes from the commercial fishery to support themselves until the next summer's commercial season. This assumption carried over to State of Alaska fisheries management after statehood in 1959. The assumption was drawn by observations of salmon harvesting in commercial fisheries. Federal and State governments had little observational knowledge of salmon harvest practices and patterns in freshwater rivers, streams, and lakes (Nelson 1987, Seitz 1990).

The politics around the use of fish traps to harvest salmon for commercial purposes in Alaska had a long-term effect on the ability of Alaska Natives to legally use traditional fish traps to harvest salmon. Companies relied on fish traps because they replaced labor and were very efficient at catching salmon. Fish trap use was eliminated in front of salmon bearing streams and rivers early on in most areas of Alaska. The use of fish traps persisted and was seized upon as the issue at the center of control of fisheries by outside interests and cannery worker unions based in Seattle and San Francisco and the

Federal government whose policies were influenced by politics in Washington DC. The continued use of commercial fish traps was the issue that helped compel Alaska towards statehood, and the newly formed Alaska Department of Fish and Game (ADF&G) immediately banned the use of commercial fish traps in Alaska in 1960. Control of commercial fishing regulations was wrestled from the Federal government and placed in the hands of Alaskans (Colt 1999). This battle had a long-term effect on the ability of Alaska Natives to use traditional traps to harvest salmon, a use that was banned by ADF&G after statehood along with all traditional methods and gear types except set gillnets in most of Bristol Bay.

With statehood in 1959, the State soon introduced new personal use regulations, naming it "subsistence," and the regulation that is the focus of this analysis. It allowed the legal harvest of salmon for subsistence uses by only set gillnets in areas outside commercial districts, and with drift and set gillnets within commercial districts when open to commercial fishing. Otherwise, commercial districts were closed to subsistence harvest of salmon. All other methods and gear use that had been legal before statehood could no longer be legally used anywhere in the Bristol Bay Area (Nelson 1987, Seitz 1990).

This history of regulation development has contributed to the transformation of the traditional subsistence salmon fishery to what we see today. Legal methods and gear types in Federal subsistence salmon fishing regulations in 1992 were adopted from ADF&G regulations. Bristol Bay regulations were the most restrictive in Alaska as a legacy of this history (**Table 1**).

Regulations

In 1992, the Federal Subsistence Board adopted into Federal regulations the State subsistence fishing regulations for the Bristol Bay Area (57 Fed. Reg. 103, 22564 [May 28, 1992]).

Between 1992 and 1997, the Federal Subsistence Board adopted a statewide regulation allowing the harvest of fish by rod and reel *(§___.27(b)(16)* in **Appendix 1**; 62 Fed. Reg. 242, 66238 [December 17, 1997]).

Table 1. Legal methods and gear types unless restricted under the terms of a subsistence salmon permit in Federal subsistence salmon fishing regulations, by fisheries management areas, 1992 (57 Fed. Reg. 103, 22558–22566 [May 28, 1992]).

Methods and gear types	Kotzebue Northern Area	Norton Sound-Port Clarence Area	Yukon Area	Kuskokwim Area	Bristol Bay Area	Aleutian Island Area	Alaska Peninsula Area	Chignik Area	Kodiak Area	Cook Inlet Area	Prince William Sound Area[2]	Yakutat Area	South-eastern Area
Set gillnet	X	X	X	X	X	X	X	X	X	X	X	X	X
Drift gillnet	X	X	X	X		X	X	X	X	X	X	X	X
Beach seine	X	X	X	X		X	X	X	X	X	X	X	X
Purse seine						X	X	X	X	X	X	X	X
Hand purse seine						X	X	X	X	X	X	X	X
Hand troll gear										X	X	X	X
Fish wheel		X	X	X						X	X	X	X
Trawl										X	X	X	X
Longline										X	X	X	X
Fyke net										X	X	X	X
Lead										X	X	X	X
Dip net										X	X	X	X
Jigging gear										X	X	X	X
Rod/reel/pole/line[3]	X	X	X	X		X	X	X	X	X	X	X	X
Spear				Holitna River	Togiak River					X	X	X	X
Ring net										X	X	X	X

[2] The Copper River drainage was closed to the harvest of salmon under Federal subsistence fishing regulations.
[3] Line attached to a rod or pole meant a device upon which a line is stored on a fixed or revolving spool and deployed through guides mounted on a flexible pole or a line is attached to a pole.

In December 2006, the Alaska Board of Fisheries took the lead by taking up Proposals 252 and 253, which were submitted to the Federal Subsistence Board as Proposals FP07-06 and -07 by the Lake Clark National Park Subsistence Resource Commission. The Board of Fisheries added them to its agenda as supplementary proposals based on its concern for conservation, enforcement, and regulatory coordination (ADF&G 2006a). Proposal 252 requested to add snagging, spear, arrow, and capture by bare hand to legal methods and gear types to harvest salmon in Lake Clark and its tributaries. Proposal 253 requested to add beach seine gear to legally harvest salmon in Lake Clark and its tributaries. The Board of Fisheries passed Proposal 252 with amendment and took no action on Proposal 253 (ADF&G 2006b, Sands et al. 2008). The new regulations read (new language emphasized in bold):

> ***5 AAC 01.320. Bristol Bay Area – Lawful gear and gear specifications***
>
> . . .
>
> *(b) Outside the boundaries of any district, salmon may be taken by set gillnet, except that salmon may also be taken as follows:*
>
> . . .
>
> ***(5) by spear in Lake Clark, excluding its tributaries;***
>
> ***(6) by gillnet[4] and beach seine in Iliamna Lake, Six Mile Lake, and Lake Clark;***

In January 2007, the Federal Subsistence Board agreed with the Bristol Bay Subsistence Regional Advisory Council's recommendation and adopted Proposal FP07-06, thereby adding snagging (by handline or rod and reel), spear, bow and arrow, rod and reel, or capture by bare hand to legal methods and gear types for harvesting salmon in Lake Clark (*§___.27(e)(5)(iv)(C)* in **Appendix 1**; OSM 2007a).

The Federal Subsistence Board modified the Bristol Bay Council's recommendation to support Proposal FP07-07. The Board added that beach seines be limited to 25 fathoms because the Board wanted to limit the length of seine nets, and no length limit existed in Bristol Bay regulations (OSM 2007b). The Board deferred the part of the proposal regarding area affected until May 2007 to consider adding Sixmile Lake to the regulation, as the Alaska Board of Fisheries had included Sixmile Lake, described above. The Board questioned Federal subsistence fishery jurisdiction in Sixmile Lake and requested that the Bristol Bay Council and Lake Clark Subsistence Resources Commission provide recommendations on whether to include Sixmile Lake (FSB 2007a). At its May 2007 meeting, the Board rejected the deferred portion of Proposal FP07-07. The Board questioned the Solicitors guidance that Sixmile Lake is under Board subsistence management jurisdiction and noted that that the Bristol Bay Council and the Lake Clark Subsistence Resources Commission had not taken up the deferred portion of the proposal at their recent meetings (*§___.27(e)(5)(iv)(D)*, FSB 2007b: 354–355).

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[4] The Alaska Board of Fisheries justification for its amendment adding gillnets to the regulation is not readily available.

In 2008, the Board agreed with the Bristol Bay Council's recommendation to support Proposal FP08-12 with additional modification, thereby adding fyke nets and leads to legal methods and gear types to harvest fish (except rainbow trout) within the tributaries of Lake Clark and the tributaries of Sixmile Lake after first obtaining a Federal permit. All fyke nets and leads must be always attended while in use, and all materials used to construct the fyke net and lead must be made of wood and be removed from the water when the fyke net and lead is no longer in use (*§___.27(e)(5)(iv)(E)* in **Appendix 1**). The Lake Clark Subsistence Resource Commission submitted the proposal, which requested that fish traps and weirs made from wood stakes be added to legal methods and gear types to take salmon in Lake Clark and its tributaries. The Council supported the proposal with modification to specify regulations for the use of fyke nets and leads in tributaries of Lake Clark and Sixmile Lake, "because it is one more method that can be utilized to harvest fish in Lake Clark, Sixmile Lake, and their tributaries. The use of a fyke net and leads are customary and traditional and have been utilized by the residents for many years. The required permits for use of fyke net and leads issued by the in-season manager will ensure conservation of fishery resources and timely harvest reports" (OSM 2007c: 341). The Board adopted the proposal with the modifications recommended by the Bristol Bay Council and with the additional modification to specify the use of wooden stakes with the construction of fyke nets and leads, and to include the tributaries of Sixmile Lake. The Board said,

> The use of fyke nets and leads is a customary and traditional practice. The required permits issued by the Federal in-season manager will ensure conservation of fishery resources and timely harvest reports. Harvest levels are expected to be low because only a limited number of households would qualify to use this method and means. Allowing the use of fyke nets will allow the transmission of traditional knowledge to present and future generations on a customary and traditional practice (OSM 2008: 3).

In 2018, the Alaska Board of Fisheries passed Proposal 19 with amendments in Record Copy 48,[5] which was submitted by the Board of Fisheries, to allow the use of dip nets to harvest salmon for subsistence in the Dillingham area, and the Igushik, Weary, and Snake rivers providing a dip net must not be operated from a vessel (*5 AAC 01.320(b)(7)*; ADF&G 2018a, 2018b). It amended the proposal by adding the Igushik, Weary, and Snake rivers, frequented by Manokotak residents to harvest salmon, based on comments by the Nushagak Fish and Game Advisory Committee and testimony that this was already being done when only a few salmon or only a specific species were desired by Manokotak residents. The Nushagak Committee amended the proposal to include these areas (ADF&G 2018c, 2018d). The Naknek/Kvichak Fish and Game Advisory Committee amended the proposal to support the use of dip nets in their area as well, which was not considered by the Board (ADF&G 2018e).

In 2021, Proposal FP21-06 was submitted by the Bristol Bay Native Association, a request to include dip nets, beach seines, and gillnets under legal methods and gear types for salmon harvesting in the Bristol Bay Area. The Bristol Bay Council did not support the proposal with the justification that the proposal was too broad in scope and did not address specific issues including salmon management and conservation concerns in some vulnerable drainages. The proposal was on the consensus agenda with

[5] Once a meeting begins, comments and new information may be submitted to the Board as a Record Copy.

other proposals for which the Board adopted all Council recommendations at one time with no commentary (OSM 2021).

Current Events Involving the Species

Three other proposals were submitted regarding closures and methods and gear types for harvesting salmon for subsistence in the Bristol Bay Area. Proposal FP25-10 seeks to repeal closures to the harvest of fish within 300 feet of a stream mouth used by salmon. Proposal FP25-12 seeks to add snagging (by handline or rod and reel), cast net, spear, bow and arrow, or capturing by bare hand to legal methods and gear types in the Togiak National Wildlife Refuge. Proposal FP25-13 seeks to repeal the regulation restricting the use of set gillnets to 10 fathoms in the upper Egegik River.

Additionally, on January 11, 2024, the Wild Fish Conservancy submitted a petition to the U.S. Department of Commerce and National Oceanic Atmospheric Administration (NOAA) to list Alaskan Chinook Salmon as a threatened or endangered species and to designate critical habitat, pursuant to the Endangered Species Act (ESA). The petition cited the effects of roads, mining, pollutants, and other habitat degradation, overutilization for commercial and recreational purposes, and disease and predation as primary factors that warranted listing. The petition also claimed existing regulatory mechanisms may be inadequate to protect Chinook Salmon populations that enter the marine environment of the Gulf of Alaska.

On May 24, 2024, the National Marine Fisheries Service (NMFS) published in the Federal Register their 90-day finding and determined the petition contained substantial information indicating the petitioned action may be warranted (89 Fed. Reg. 102, 45815 [May 24, 2024]).[6] This 90-day finding moved the petition forward to a 12-month status review process, which is a comprehensive review of the best available scientific and commercial information. The finding at the 12-month stage is based on a more thorough review of the available information, as compared to the narrow scope of review at the 90-day stage.[7]

Biological Background

There are numerous salmon stocks in the Bristol Bay Area that are targeted by subsistence, sport, and commercial fisheries. In general, all salmon stocks are in a productive period. There are only a few major monitoring projects for in-season abundance in the freshwaters and other run indicators used for managing the commercial salmon harvest in marine waters. There are no specific conservation concerns to report at this time for Sockeye, Pink, Chum, and Coho salmon; however, some runs of Chinook Salmon have been depressed for many years. In October 2022, Alaska Department of Fish and Game (ADF&G) recommended that Nushagak River Chinook Salmon be listed as a stock of

[6] https://www.federalregister.gov/documents/2024/05/24/2024-11381/endangered-and-threatened-wildlife-90-day-finding-on-a-petition-to-list-gulf-of-alaska-chinook

[7] Information on the status of this review process can be found by going to www.regulations.gov and searching for agency docket # 240520-0140. For additional information contact Julie Scheurer, NMFS Alaska Region, Julie.scheurer@noaa.gov, (907) 586-7111; or Heather Austin, NMFS, Office of Protected Resources, heather.austin@noaa.gov, (301) 427-8422.

management concern at the Bristol Bay Area Alaska Board of Fisheries meeting held in November 2022. This prompted the Alaska Board of Fisheries to adopt the Nushagak River King Salmon Action Plan. The in-river run goal for Chinook Salmon in the Nushagak River is 95,000 and has not been met six of the last seven years. The sustainable escapement goal (SEG) of 55,000 to 120,000 also was not met in four of the last six years (ADF&G 2022).

Cultural Knowledge and Traditional Practices

Community Background

There are 23 communities in the Bristol Bay Area and a relatively fast-growing population that peaked in 2000 and has since declined with a regional population estimated at 6,631 people in 2020 (**Table 2**). In the 1990s, the presence of military personnel at King Salmon was substantially reduced resulting in a slight drop in the subregional population. The regional hub of government, healthcare, transportation, and services is Dillingham in western Bristol Bay, with an estimated year-round population of 2,249 people in 2020. Subregional hubs of transportation include the community of Iliamna situated on the shore of Lake Iliamna and the Bristol Bay Borough on the Alaska Peninsula, the hub community for eastern Bristol Bay.

Generally, outside these three transportation hubs, small villages of fewer than 500 people are spread throughout the area. Two-thirds of residents live in western Bristol Bay. Few villages are connected by roads and access is primarily by plane, boat, and snowmachine. The area is diverse with cultural roots in Yup'ik, Athabascan, Alutiiq, and Aleut traditions. Others have moved to the area to participate in commercial and sport fishing industries, as government employees, to provide services, and to hunt, trap, and fish for sport and subsistence. In the Lake Iliamna and Lake Clark areas are a mixture of Dena'ina Athabascan and Yup'ik cultural traditions, the Alaska Peninsula villages are primarily Alutiiq, while western Bristol Bay is primarily Yup'ik with many people self-describing as Aleut (ADCCED 2024).

Table 2. The population of the Bristol Bay area based on the U.S. Census (ADCCED 2024).

Community	1960	1970	1980	1990	2000	2010	2020
Alaska Peninsula							
Egegik	150	148	75	122	116	109	39
Pilot Point	61	68	66	53	100	68	70
Naknek	249	178	318	575	678	544	470
King Salmon	227	202	545	696	442	374	307
South Naknek	142	154	145	136	137	79	67
Kvichak drainage							
Levelock	88	74	79	105	122	69	69
Igiugig	36	36	33	33	53	50	68
Kokhanok	57	88	83	152	174	170	152
Pope-Vanoy Landing	0	0	0	0	8	6	6
Pedro Bay	53	65	33	42	50	42	43

Community	1960	1970	1980	1990	2000	2010	2020
Iliamna	47	58	94	94	102	109	108
Newhalen	63	88	87	160	160	190	168
Nondalton	205	184	173	178	221	164	133
Western Bristol Bay							
Clarks Point	138	95	79	60	75	62	67
Dillingham	424	914	1,563	2,017	2,466	2,329	2,249
Aleknagik	231	128	154	185	221	219	211
Portage Creek	0	60	48	5	36	2	4
Ewok	106	103	77	77	130	115	111
New Stuyahok	145	216	331	391	471	510	512
Koliganek	100	142	117	181	182	209	183
Manokotak	149	214	294	385	399	442	488
Twin Hills	0	67	70	66	69	74	103
Togiak	220	383	470	613	809	817	817
Total	2,891	3,665	4,956	6,381	7,325	6,912	6,631

A primary economic engine of the cash economy of Bristol Bay Area has been the commercial salmon fishing industry. Participation in commercial fishing by residents has declined significantly since the 1970s. In 1974 Bristol Bay became a limited entry fishery, and only people able to get one of a defined number of permits in 1974 could legally participate in the commercial fishery in subsequent years. Since 1975, local drift gillnet permit ownership has declined by 48% (from 787 to 407 permits) and the less profitable set gillnet permit ownership has declined by 20% (from 538 to 432 permits) (CFEC 2024).

Commercial fishing peaked in the 1980s when large runs of Sockeye Salmon coincided with high prices, and then declined. The costs of commercial fishing such as boat repairs and financing have contributed to the sale of permits (Braithwaite 2022). The loss of permits has outpaced population declines in Bristol Bay Area communities. For example, Nondalton's estimated population declined 23% between 1980 and 2020 and permit ownership declined 66%. More significantly, communities that have grown in population have also lost permits. Communities who have increased permit ownership are Togiak and Manokotak (CFEC 2024).

Subsistence Fishing

The human population in the Bristol Bay Area has been supported by an abundance of salmon for thousands of years. Hunting, fishing, and gathering were all practiced, but fishing was by far the most important because of the large and predictable salmon runs. People were drawn into the fur trade early in the 1800s bringing radical changes before traditional subsistence patterns were documented in their entirety (VanStone 1984). Early documentation is focused on the period between 1880 and 1930.

During the months of spring, families were often at camps harvesting furbearers for fur and for food, marine mammals, and birds. The fresh food was welcome after relying on primarily dried and preserved salmon for months in late winter and early spring. In spring people returned to settlements oriented on rivers to prepare for salmon season (VanStone 1984).

Villages prepared nets and traps to be ready to harvest the first salmon runs. They used gill nets made of sinew that were held vertically in the water by wooden floats and stone sinkers. People drifted nets in rivers and streams while paddling kayaks or canoes. Mesh sizes used to harvest different species and sized fishes were measured with gauges. People also used funnel-shaped basket traps made of split spruce strips, spears with barbed harpoon dart heads, and dip nets (VanStone 1967, 1984; U.S. Bureau of Fisheries 1905-1926 *in* Nelson 1987). Some dip nets were as much as six feet in diameter. Small hooks made from ornamented stone and ivory or metal were used to harvest salmon with a great variety of sinkers for fishing lines intended to attract fish as well as serve as weight for the line. In addition to arrows used for killing birds and mammals, people made arrows that varied considerably in the shape of the heads for shooting fish (Nelson 1899).

The following passage provides a demonstration of Dena'ina using these gear types, above, in addition to snares:

> Fish traps were most commonly used for taking salmon in the Kvichak and Mulchatna prior to the introduction of commercially made nets or net making materials. Historically, both set and dipnets were made of spruce roots and sinew. King salmon were taken with a harpoon-like spear constructed with a head attached to a line and shaft—a tool referred to in Dena'ina as *dineh*. The head penetrated the king salmon, turned sideways, and the line allowed retrieval of the king salmon in much the same way that marine mammal harpoons functioned in Yup'ik, Inupiat, and Dena'ina occupied coastal areas. Salmon and other fish were also taken with snares made out of eagle feather stems, used both in summer and under the ice in winter. Since commercially made nets became available through trading facilities (largely in association with the Bristol Bay commercial fishery), they have become the most common item of technology used for taking salmon in the Lake Clark area. Fish wheels, introduced by miners at the turn of the century, have continued to be used on the Stony River for taking salmon throughout the 1900s (Ellanna and Balluta 1992: 27).

By the 1950s, nylon nets were available, but it was still common to see people drifting gillnets attached to boats that they rowed or moved with low-horsepower engines. It was the growing commercial fishery in the 1970s and early 1980s that brought more efficient gear into the subsistence fishery, and higher-powered boat engines became common (Wolfe et al. 1984).

Large amounts of salmon and other wild resources were harvested to feed dogs that pulled sleds for transportation up until the 1970s when snowmachines, larger boats, and airplanes largely replaced this transportation mode although some families continue to own dogs (Jones et al. 2019).

More recently the harvest of salmon for subsistence in the Bristol Bay Area has been well documented (VanStone 1967, Wolfe et al. 1984, Wolfe et al. 1986, Morris 1985, Morris 1986, Fall and Morris 1987, Morris 1987, Schichnes and Chythlook 1988, Seitz 1990, Gross 1991, Schichnes and Chythlook 1991, Seitz 1996, Coiley-Kenner et al. 2003, Fall et al. 2010, Hutchinson et al. 2020, Jones et al. 2019, Jones and Cunningham 2020, Jones and Neufeld 2022, Sill et al. 2022).

In summertime, throughout the Bristol Bay Area, families are busy harvesting salmon commercially and for home use. People retain many of the salmon harvested for home use from commercial catches, so the pattern of fishing and harvesting is intermixed between commercial and subsistence fisheries. Therefore, many salmon used by subsistence fishers are taken from marine waters. However, not everyone is involved in commercial fishing, and salmon subsistence harvesting is traditional in rivers, streams, and lakes where regionally people harvest much of their salmon for subsistence. People harvest spawning Sockeye Salmon in late summer and fall while hunting and berry picking in the upper reaches of drainages including Togiak Lake, the source of the Igushik River at Amanka and Ualik lakes, Sixmile Lake, Lake Clark, Becharof Lake, and Upper and Lower Ugashik lakes after the close of the commercial fishing season (**Figure 1**).

In freshwaters traditional methods of the past have been deemphasized in favor of the use of set gillnets, the only legal gear type allowed in most of the area. However, people continue to use traditional methods when they are prescribed by tradition and conditions and are efficient.

For example, beach seines are commonly used in the Togiak River drainage when people are targeting a specific number of salmon so as not to overwhelm their processing and smokehouse capacities (locally called “round hauling”). Beach seining is generally a non-lethal method for capturing salmon that allows users to select the number and species of fish they want to harvest. Beach seines are also used when there is a limited amount of time, and many fish are required. At certain times it is very quick and efficient requiring at least two persons, one in the boat and the other on the beach. Beach seining is a particularly good method for areas where fish are hold up to rest before running upstream. Beach seining is common for harvesting spawning Sockeye Salmon at Togiak, Amanka, and Ualik lakes in the fall (Wolfe et al 1984, Gross 1991, Jones et al. 2019).

Gillnets have been drifted to harvest salmon in the Lake Clark/Iliamna area (Fall et al. 2010). Dip nets are used in the Igushik area (ADF&G 2018c, Sill *in pub.*).

People are aware of the regulations and continue to use illegal methods and gear types that were used traditionally, although in areas frequented by law enforcement, they are more careful. For example, the use of beach seine nets was legalized in Lake Clark and Sixmile Lake in the Nondalton area in 2007. People said about this change from an illegal gear type to a legal gear type: “It is much easier to fish now that seines can be used in the daytime” and “Daytime seining allows for more people to participate, including children” (Fall et al. 2010: 62–63).

These methods and gear types are currently not legal in most of the Bristol Bay Area in Federal subsistence regulations. This proposal, FP25-11, requests that the use of dip nets, beach seines and drift

gillnets be added to legal methods and gear types in the Bristol Bay Area in Federal subsistence regulations.

During the fall 2018 Council meeting, a Council member shared his thoughts on a recently submitted proposal to the Alaska Board of Fisheries requesting dip nets be legally allowed gear for salmon subsistence fishing. He explained that providing opportunity for the use of dip nets could reduce gear cost, lessen crowding in the subsistence set net areas, and allow for selective harvest of targeted fish like Sockeye and Coho Salmon, especially during years with strong Pink Salmon runs so that Pink Salmon can be released live (BBSRAC 2018:10).

Harvest History

Subsistence Harvests

Bristol Bay Area communities are heavily reliant on salmon for subsistence uses. The average subsistence harvest from 2011 to 2020 is estimated at 117,035 salmon, which includes an average Sockeye Salmon harvest of 90,741. Harvest levels have been highest in the Nushagak and Naknek-Kvichak areas. These estimates are based on the subsistence salmon fishing permit system in Bristol Bay (Jones and Neufeld 2022). Recent 2021 estimated salmon harvests are described in **Table 2**.

Table 2. The estimated harvest of salmon for subsistence purposes, by species, districts, and locations fished, Bristol Bay Area, 2021 (Jones and Neufeld 2022).[8]

Areas and River Systems	Permits Issued	Chinook Harvests	Sockeye Harvests	Coho Harvests	Chum Harvests	Pink Harvests	Total Harvests
Naknek-Kvichak District	307	195	30,740	561	111	73	31,680
Naknek River Subdistrict	196	191	14,580	405	111	73	15,360
Kvichak River Subdistrict	111	4	16,160	156	0	0	16,320
Egegik District	5	24	355	20	0	0	399
Ugashik District	15	5	812	12	2	2	833
Nushagak District	656	5,349	43,712	5,133	1,077	79	55,350
Togiak District	34	114	3,159	585	72	20	3,949
Total	1,012	5,686	78,779	6,311	1,262	174	92,211

Salmon comprises a large part of subsistence harvests of wild resources. The ADF&G Division of Subsistence conducts subsistence harvest surveys periodically throughout Alaska. Though these survey data are only available for some communities in some years, it is an additional source for documenting patterns of use in rural Alaska. A group of surveys for the Bristol Bay Area took place in five phases beginning in 2005 for the 2004 data year and completing the final phase of field work in Dillingham for the 2010 data year (Evans et al. 2013). A total of 17 communities were surveyed. For all communities surveyed, salmon comprised a significant portion of the total annual harvest ranging from a high of 82% of the harvest in King Salmon (Holen et al. 2011) to approximately 29% of the harvest

[8] Preliminary data. Due to rounding, the sum of columns and rows may not equal the estimated.

in Levelock (Krieg et al. 2009). Per capita harvests of salmon ranged from 637 pounds per person in Clarks Point (Holen et al. 2012) to 89 pounds per person in Port Alsworth (Fall et al. 2006).

The surveys also document gear types used to harvest salmon. Most reported harvest of salmon by the surveyed communities were taken with subsistence set gillnets, followed by removal from commercial catches, and lastly, some communities also used rod and reel to provide some salmon for home use.

Alternatives Considered

An alternative considered was to support Proposal FP25-11 with modification to align Federal regulations with State regulations. This would allow federally qualified subsistence users to use beach seines and drift gillnets in Sixmile Lake and Lake Clark and allow the use of dip nets in the Igushik, Weary, and Snake rivers. This modification was not chosen because using beach seines and dip nets to harvest salmon is less efficient than using set gillnets and are used specifically when less salmon is desired. Limiting their legal use to only areas already allowed in State regulations was not considered necessary to protect salmon from overharvest.

This alternative regulation would read:

50 CFR 100.27(e)(5) Bristol Bay Area

****

(iv) Unless otherwise specified, you may take salmon by set gillnet only.

(A) You may also take salmon by spear in the Togiak River, excluding its tributaries.

(B) You may also use drift gillnets not greater than 10 fathoms in length to take salmon in the Togiak River in the first 2 river miles upstream from the mouth of the Togiak River to the ADF&G regulatory markers.

(C) You may also take salmon without a permit in Sixmile Lake and its tributaries within and adjacent to the exterior boundaries of Lake Clark National Park and Preserve unless otherwise prohibited, and Lake Clark and its tributaries, by snagging (by handline or rod and reel), using a spear, bow and arrow, rod and reel, or capture by bare hand).

(D) You may also take salmon by ***gillnet and*** *beach seine ~~not exceeding 25 fathoms in length~~ in Lake Clark* ***and Sixmile Lake****, excluding tributaries.*

(X) You may also take salmon by dip net in the Igushik, Weary, and Snake Rivers; a dip net may not be operated from a vessel.

Effects of the Proposal

If Proposal FP25-11 is adopted, federally qualified subsistence users will be able to legally harvest salmon with drift gillnets, dip nets, and beach seines in Federal public waters of the Bristol Bay Area. This will align some State and Federal subsistence regulations in the Lake Clark/Iliamna area and the Igushik, Weary, and Snake rivers running into Nushagak Bay and will misalign regulations in the rest of the area.

The immediate effect on salmon will likely be minimal because families overwhelmingly use set gillnets to harvest salmon or remove salmon from their commercial catches. People use drift gillnets, dip nets, and beach seines to a much lower degree than set gillnets, and people use dip nets and beach seines for the purpose of avoiding harvesting large numbers of salmon.

Drift gillnets can take salmon very efficiently and using them in the first two miles of the Togiak River where the river is wide is currently legal in State and Federal regulations. The Togiak River and Igushik River are the only lower portions of major drainages that are within Federal subsistence fisheries jurisdiction. All streams running into Togiak Bay and the Igushik, Weary and Snake rivers running into Nushagak Bay are also under Federal subsistence jurisdiction where the use of drift gillnets will be legal. Drift gillnets will become legal gear in Lake Becharof where residents of Egegik (population 39 in 2020) harvest spawning Sockeye Salmon in late summer and early fall. Drift nets will become legal gear in Upper and Lower Ugashik Lakes. Residents of the village of Ugashik (population 4 in 2020) harvest salmon from in front of the village on Lower Ugashik Lake. Currently Federal and State regulations provide some protection from large salmon harvests concentrated in short periods of time by requiring that people not obstruct more than one-half the width of any stream with any gear.

Dip nets will be legal in the Igushik, Weary, and Snake rivers where dip nets are used and legal under State regulations; and drift gillnets will be legal in the upper portion of drainages including Lake Clark and Sixmile Lake, areas where drift gillnets are used and legal under State regulations; therefore, no effects on salmon in these areas using these methods are anticipated.

If Proposal FP25-11 is adopted, no effect on nonsubsistence users is anticipated.

If Proposal FP25-11 is not adopted, subsistence users will be restricted to using set nets only, with some exceptions, to legally harvest salmon. People are likely to continue using dip nets and beach seines to avoid overharvesting salmon and drift gillnets especially to harvested spawned-out salmon in lakes.

OSM CONCLUSION

Support Proposal FP25-11 **with modification** to allow dip nets and beach seines to harvest salmon in the Bristol Bay Area, and for drift gillnets, align Federal regulations with State regulations in the Lake Clark area.

The modified regulation should read:

> ***50 CFR 100.27(e)(5) Bristol Bay Area***
>
> . . .
>
> *(iv) Unless otherwise specified, you may take salmon by set gillnet,* ***beach seine, and dip net.***
>
> > . . .
> >
> > *(D) You may also take salmon by beach seines not exceeding 25 fathoms in length* ***and by drift gillnets*** *in Lake Clark* ***and Sixmile Lake****, excluding tributaries.*

Justification

Gillnets, beach seines, and dip nets were used traditionally to harvest salmon, and Bristol Bay communities continue to do so today. Before statehood, the U.S. Fish and Wildlife Service allowed residents of the Bristol Bay Area to use all traditional methods and gear types to harvest salmon. After residents began commercial fishing in the 1950s, it was assumed that most salmon taken for home use were removed from commercial catches and most were fed to dogs. After statehood, the State introduced new subsistence regulations allowing the use of only set gillnets to legally harvest salmon for subsistence uses, although traditional methods and gear types were still being used. The use of beach seines and dip nets to harvest salmon is less efficient than the use of set gillnets and no overharvest of salmon is likely using these methods and gear types. On the other hand, drift gillnets use in the many rivers and streams in the Bristol Bay Area have the potential to harvest large numbers of salmon, and their use should be legal in Lake Clark and Sixmile Lake where it is already legal under State regulations and where no effect on salmon populations is anticipated using drift gillnets.

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SUBSISTENCE REGIONAL ADVISORY COUNCIL RECOMMENDATION

Bristol Bay Subsistence Regional Advisory Council

Support FP25-11 as **modified by OSM**. The Council said people are using beach seines and dipnets to harvest salmon in the Bristol Bay area, sometimes without knowing they are illegal. These are efficient and selective gear types traditionally used in the Bristol Bay Area. They are efficient when subsistence users desire to harvest smaller quantities of salmon than would be caught using other methods, such as a set gillnet, and they are selective by allowing live releasing of fish people do not desire. Allowing subsistence users to use drift gillnets in only Sixmile Lake and Lake Clark will protect over harvest of some fish species, such as Chinook Salmon, using this method in other freshwaters of the Bristol Bay Area.

The modified regulation should read:

> ***50 CFR 100.27(e)(5) Bristol Bay Area***
>
> . . .
>
> *(iv) Unless otherwise specified, you may take salmon by set gillnet,* ***beach seine, and dip net.***
>
> > . . .
> >
> > *(D) You may also take salmon by beach seines not exceeding 25 fathoms in length* ***and by drift gillnets*** *in Lake Clark* ***and Sixmile Lake****, excluding tributaries.*

INTERAGENCY STAFF COMMITTEE COMMENTS

The Interagency Staff Committee found the analysis to be a thorough and accurate evaluation of the proposal and that it provides sufficient basis for the Regional Advisory Council recommendation and the Federal Subsistence Board action on this proposal.

ALASKA DEPARTMENT OF FISH AND GAME COMMENTS

None

APPENDIX 1

Relevant Federal Regulations

§___.25 Subsistence taking of fish, wildlife, and shellfish: general regulations.

(a) Definitions. The following definitions apply to all regulations contained in this part:

. . .

Beach seine *means a floating net which is designed to surround fish and is set from and hauled to the beach.*

. . .

Dip net *means a bag-shaped net supported on all sides by a rigid frame; the maximum straight-line distance between any two points on the net frame, as measured through the net opening, may not exceed 5 feet; the depth of the bag must be at least one-half of the greatest straight-line distance, as measured through the net opening; no portion of the bag may be constructed of webbing that exceeds a stretched measurement of 4.5 inches; the frame must be attached to a single rigid handle and be operated by hand*

. . .

Drift gillnet *means a drifting gillnet that has not been intentionally staked, anchored, or otherwise fixed in one place.*

. . .

§___.27 Subsistence taking of fish

. . .

(b) Methods, means, and general restrictions.

. . .

(3) For subsistence fishing for salmon, you may not use a gillnet exceeding 50 fathoms in length, unless otherwise specified in this section. The gillnet web must contain at least 30 filaments of equal diameter or at least 6 filaments, each of which must be at least 0.20 millimeter in diameter.

(4) Except as otherwise provided for in this section, you may not obstruct more than one-half the width of any stream with any gear used to take fish for subsistence uses.

. . .

(16) Unless specified otherwise in this section, you may use a rod and reel to take fish without a subsistence fishing permit. Harvest limits applicable to the use of a rod and reel to take fish for subsistence uses shall be as follows:

(i) If you are required to obtain a subsistence fishing permit for an area, that permit is required to take fish for subsistence uses with rod and reel in that area. The harvest and possession limits for taking fish with a rod and reel in those areas are the same as indicated on the permit issued for subsistence fishing with other gear types.

. . .

§___.27(e)(5) Bristol Bay Area

. . .

(iv) Unless otherwise specified, you may take salmon by set gillnet only.

(A) You may also take salmon by spear in the Togiak River, excluding its tributaries.

(B) You may also use drift gillnets not greater than 10 fathoms in length to take salmon in the Togiak River in the first 2 river miles upstream from the mouth of the Togiak River to the ADF&G regulatory markers.

(C) You may also take salmon without a permit in Sixmile Lake and its tributaries within and adjacent to the exterior boundaries of Lake Clark National Park and Preserve unless otherwise prohibited, and Lake Clark and its tributaries, by snagging (by handline or rod and reel), using a spear, bow and arrow, rod and reel, or capture by bare hand).

(D) You may also take salmon by beach seines not exceeding 25 fathoms in length in Lake Clark, excluding its tributaries.

(E) You may also take fish (except rainbow trout) with a fyke[9] *net and lead in the tributaries of Lake Clark and the tributaries of Sixmile Lake within and adjacent to the exterior boundaries of Lake Clark National Park and Preserve unless otherwise prohibited.*

[9] Fyke net *means a fixed, funneling (fyke) device used to entrap fish;* Lead *means either a length of net employed for guiding fish into a seine, set gillnet, or other length of net, or a length of fencing employed for guiding fish into a fish wheel, fyke net, or dip net* (*§___.25(a)*).

(1) You may use a fyke net and lead only with a permit issued by the Federal in-season manager.

(2) All fyke nets and leads must be attended at all times while in use.

(3) All materials used to construct the fyke net and lead must be made of wood and be removed from the water when the fyke net and lead is no longer in use.

. . .

(x) You may take salmon only under authority of a State subsistence salmon permit (permits are issued by ADF&G) except when using a Federal permit for fyke net and lead.