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ALASKA DEPARTMENT OF FISH AND GAME  
DIVISION OF COMMERCIAL FISHERIES

Special Report to the Alaska Board of Fisheries

BRISTOL BAY SALMON MANAGEMENT  
PLAN FOR 1980

Anchorage, Alaska  
March, 1980

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The Department's forecast of returning sockeye salmon to Bristol Bay in 1980 totals 54.5 million fish (see Table 1 for detailed information). An inshore return of this magnitude has not been equalled since accurate total run estimates were first available in the mid-1950's, although the 1965 total return of 53.1 million fish closely equals the forecast for 1980.

After subtracting peak year cycle escapement requirements of 17.5 million, a harvestable surplus of 37.1 million sockeye remains. The projected catch of 37.1 million, if realized, would be the largest catch since commercial operations began in Bristol Bay in 1893, and would exceed the previous highest catch by over 12 million fish.

Over 75% (or 28 million fish) of the expected sockeye harvest would occur in the Naknek-Kvichak district, with significant harvests also forecast for Nushagak and Egegik districts. The district sockeye forecast, escapement goals and projected harvest is summarized and shown below for comparison purposes (in 1,000's):

District	Forecast		Escapement Goals	Projected Harvest	
	Number	Percent		Number	Percent
Naknek-Kvichak	49.922	79%	15.000	27.967	75%
Egegik	3.445	6%	.600	2.845	8%
Ugashik	1.488	3%	.500	.988	3%
Nushagak	6.156	11%	1.300	4.895	13%
Togiak	.531	1%	.100	.431	1%
Total Bay	54.542		17.500	37.126	

Significant harvest of other species are also anticipated for 1980. Pink salmon are expected to return in record numbers, particularly to the Nushagak district where the total forecast of 15.7 million fish will allow a harvest of 14.7 million fish after escapement requirements are met. Total pink returns in 1980 to all districts of Bristol Bay will allow a harvest many times in excess of the long-term average harvest of 1.8 million. King salmon returns are expected to allow a harvest in excess of 200,000, while chum salmon returns are expected to be strong, particularly in Nushagak and Togiak districts where over 1.0 million fish are expected to enter the harvest.

In total, Bristol Bay may have as many as 55 million fish of all species in excess of escapement requirements. This potentially large catch requires special management considerations to provide for an orderly and maximum harvest.

With the foregoing in mind, the following management options will be implemented by emergency order in Bristol Bay for the 1980 season to provide fishermen and processors the greatest opportunity to maximize the harvest:

I. Fishing Boundaries: Effective 9:00 a.m., June 9, seaward extensions of fishing boundaries will be established by emergency order in the Naknek-Kvichak, Egegik and Ugashik districts. Boundary extensions will generally follow the same design established in 1970. A General fishing district will be established seaward of the present Naknek-Kvichak, Egegik and Ugashik districts (Figure 1). The General fishing district boundary will commence at 58° 38' 36" N. Lat., 158° W. long., near Etolin Point and proceed in a southerly direction, conforming to the State's 3-mile jurisdictional limit, to Cape Menshikof. The extended

fishing area will be separated into three geographically distinct areas for purposes of reporting the catch. The General fishing district will remain in effect throughout the season, or until run strength dictates a pull-back to afford additional protection to sockeye stocks not showing forecast strength.

In addition, the strong sockeye run forecast into Nushagak district will hopefully be blunted by allowing a seaward boundary extension to the established "king salmon boundary line" (Figure 1). The Nushagak boundary extension will be announced by emergency order after the district's king salmon escapement requirements have been met; however, for the outer boundary extension in this district to be effective in cropping off early sockeye, the boundary should be operational no later than June 24-25.

Upriver, or inner fishing boundary relocations, will not be made unless extreme circumstances so dictate. As directed by the Board of Fisheries, the inner boundary on Kvichak River will be relocated if circumstances are such that it will be in the best interests of the resource and resource users.

With the fishing boundary extensions, the staff reached a decision to not deploy the marker can buoys normally in use. If district boundary restrictions or adjustments are needed in-season to protect sockeye stocks, the industry will be asked to cooperate by placing tenders to help mark boundaries, for it is unlikely that buoys can be deployed on such short notice.

II. Fishing Season: Effective 9:00 a.m., June 9, unrestricted fishing time will be announced by emergency order for the Naknek-Kvichak,

Egegik and Ugashik districts until further notice. Unrestricted fishing time will be announced for Nushagak district once king salmon escapement requirements have been met. We anticipate that by June 24-25, king salmon escapement requirements will be adequate and the Nushagak district can be opened until further notice.

III. Fishing Gear: Additional gill net gear allowed in 1970 was not effective in increasing the harvest. Therefore, the staff has no plans to increase the allowable gear. Depending on the South Unimak commercial harvest and Port Moller test boat catches of pink salmon, the effective date when smaller mesh pink gear can be used may be allowed earlier in the season, especially in Nushagak district where a large return has been forecast.

IV. District Re-registration: Effective 9:00 a.m., June 9, an emergency order announcement will waive all re-registration processes and allow unrestricted movement between all districts of Bristol Bay without the usual 48 hour waiting period. The Department will continue to require prior notice of intent to relocate fishing operations, but the 48 hour waiting period will not be in effect.

In conclusion, the Department fully realizes the risks involved in proposing this management plan. However, it is the opinion of the staff that the possibility of adversely affecting any run or species is minimal considering the technology and effort that is applied to the management of the Bristol Bay fishery. It is also the opinion of the staff that in this case the advantages of establishing a General district to permit earlier fishing on the Kvichak run outweigh the risks involved.

Early season offshore fishing may help reduce the size of the catches required during the peak of the run to meet the desired season

harvest, thereby reducing the possibility of "plugging" the processing facilities.

The major risk is over-fishing stocks other than those returning to the Kvichak River. Tagging studies indicate (1) Egegik fish might be expected to constitute a major proportion of fish which mill in the Middle Bluff-Cape Chichagof areas, whereas (2) Kvichak and Naknek fish become more dominant proportionately in the milling area near Low Point, between Middle Bluff and Johnson Hill, and (3) that Ugashik fish constitute the larger proportion of fish that mill in the area between the Egegik and Ugashik districts.

The fact that eight out of ten fish forecast to return to Bristol Bay's east side systems in 1980 are Kvichak River fish means a reduction will probably occur in the proportionate number of Egegik fish milling in the Middle Bluff-Cape Chichagof area. A similar reduction should occur in the proportionate number of Naknek fish milling in the Low Point area. The same is true for the Ugashik fish in the area between the Egegik and Ugashik districts. The risk of over-fishing the Ugashik run becomes less when one considers that, historically, this run has peaked several days later than the Kvichak run, and again, the concept of the General district is to enable fishing on the run early in the season. Furthermore, just because additional fishing areas and unrestricted fishing time are being established for the 1980 season, doesn't mean that these areas and season will necessarily remain open to fishing. On the contrary, if the personnel responsible for the management of this fishery deem it necessary to close these extended areas or seasons, they will be closed in-season by emergency order.

The Shumagin/South Unimak fishery will provide a check approximately two weeks before the fish reach the Bristol Bay fishing districts, and a final run magnitude verification will be provided approximately one week before the run arrives by the A.D.F. & G. test fishing boat operating off Port Moller. Operational funds permitting, the Department's Port Moller test fishing operation will continue fishing operations well into July with smaller mesh pink gear to provide run magnitude estimates for the expected large pink salmon return.

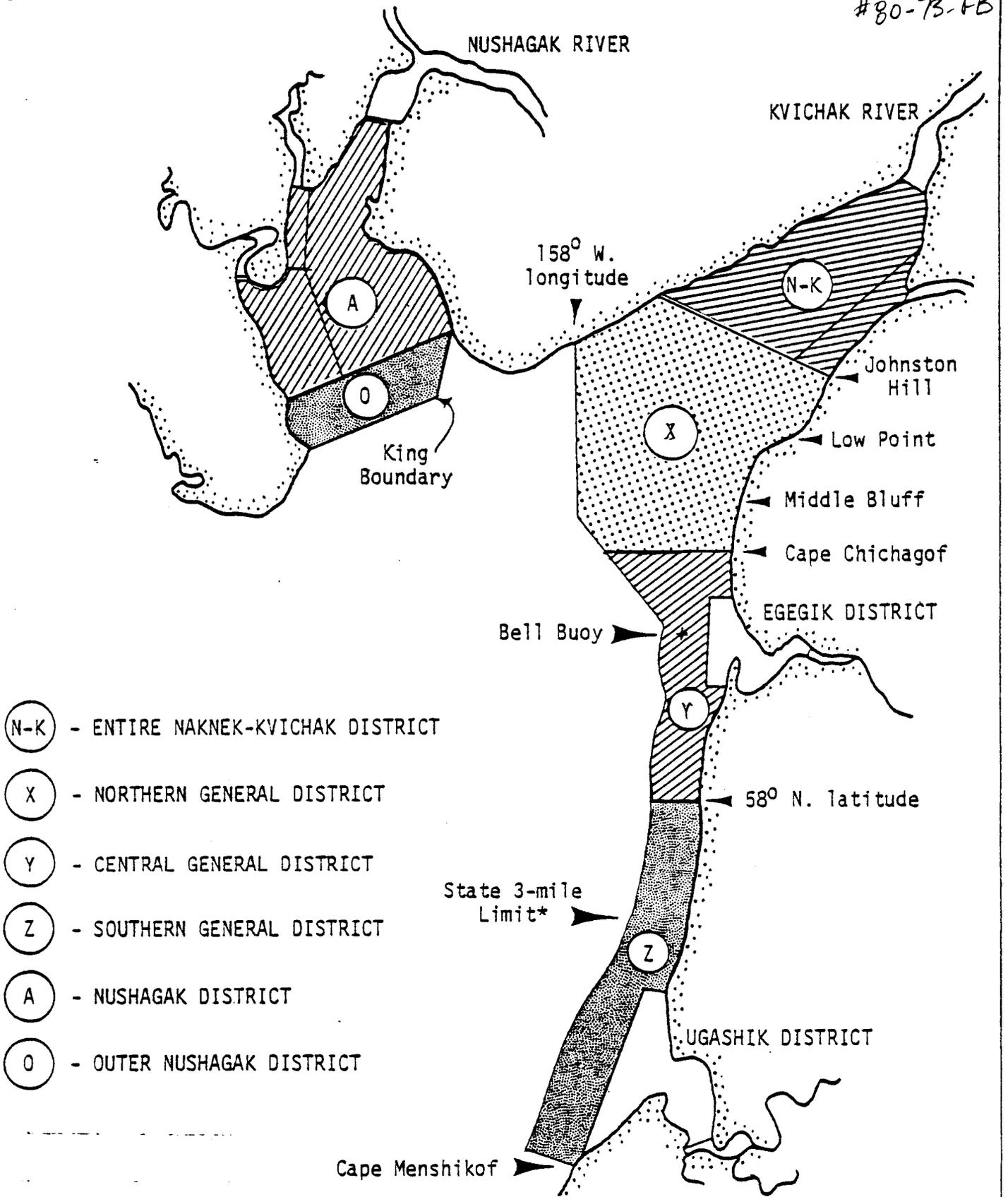


FIGURE 1. SALMON CATCH REPORTING ZONES, BRISTOL BAY, 1979.

\*Western boundary of General District is limited by the State three-mile territorial zone.