Exhibit B.4.e
Supplemental NMFS Report
March 2001

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

MAR 2 2001

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Mr. Jim Lone, Chairman
Pacific Fisheries Management Council
2130 S.W. Fifth Avenue, Suite 224
Portland, Oregon 97201

Dear ~~Mr.~~ Lone:

Amendment 14 to the Pacific Coast Salmon Fishery Management Plan (Salmon FMP) requires that the Pacific Fishery Management Council (PFMC or Council) manage their fisheries consistent with consultation standards developed by the National Marine Fisheries Service (NMFS) regarding actions necessary to protect species listed under the Endangered Species Act (ESA). This letter summarizes NMFS' consultation standards and provides guidance for the 2001 season for listed species.

Chinook Salmon

Puget Sound Chinook Salmon

This is the second year that NMFS will provide guidance to the Council related to the Puget Sound chinook ESU. NMFS' consultation standards for Puget Sound chinook stocks will be expressed in terms of total or southern U.S. fishery exploitation rate ceilings, or terminal escapement objectives. Procedurally the Council forum, and associated North of Falcon process provide the appropriate forums for doing the necessary management planning. Under the current management structure, PFMC fisheries are included as part of the suite of fisheries that comprise the fishing regime negotiated each year by the co-managers under U.S. v. Washington to meet management objectives for Puget Sound and Washington Coastal salmon stocks. The comprehensive nature of the management objectives and the management planning structure strongly connect PFMC and Puget Sound fisheries. Therefore, in adopting its regulations, the Council must determine that its fisheries in the ocean, when combined with the suite of other fisheries impacting this ESU, meet the management targets set for stocks within this ESU.

Having established the connection between Council and Puget Sound fisheries for management planning purposes, it is also appropriate to acknowledge that impacts on Puget Sound chinook stocks in Council fisheries are generally quite low. NMFS estimated in its 2000 PFMC opinion that the exploitation rates on Puget Sound chinook spring and fall chinook stock aggregates have been zero and three percent or less, respectively, in recent years. Management actions taken to meet exploitation rate targets will therefore occur primarily in the Puget Sound fisheries, but the nature of the existing process is such that ocean fishery impacts will be accounted for, and are at least potentially liable to constraint if necessary to meet particular targets.

NMFS is currently evaluating the *Puget Sound Comprehensive Chinook Management Plan: Harvest Management Component* as a Resource Management Plan (RMP) for Puget Sound chinook under the recently adopted 4(d) rule (65 FR 42422, July 10, 2000). The RMP, jointly developed by the Washington Department of Fish and Wildlife and the Puget Sound Treaty Tribes, includes stock-specific harvest management objectives for Puget Sound chinook. Although the final determination on the RMP will not be available until after the March Council meeting, it is expected to be available in time for the April meeting. NMFS' initial evaluation is that the RMP is consistent with the 4(d) rule. Therefore, NMFS recommends that the Council adopt options at the March Council meeting that have stock-specific impacts that are no greater than those specified in Table 6 and Appendices A and C of the RMP.

Lower Columbia River Chinook

The Lower Columbia River (LCR) chinook ESU is comprised of a spring component, a far north-migrating bright component, and a component of north-migrating tules. The three remaining spring stocks within the ESU include those on the Cowlitz, Kalama, and Lewis rivers. The historic habitat for these spring chinook stocks is now largely inaccessible due to impassable dams. Although some spring chinook spawn naturally in each of these rivers, these are presumed to be largely hatchery-origin fish with little resulting natural production. The remaining spring stocks are therefore dependent, for the time being, on the associated hatchery production programs. The hatcheries have met their escapement objectives in recent years, and are expected to do so again in 2001, thus ensuring that what remains of the

genetic legacy is preserved until a more comprehensive recovery program designed to reestablish self-sustaining populations is implemented. No additional management constraints in PFMC fisheries are considered necessary.

Three natural-origin bright stocks have been identified in the LCR ESU. The North Fork Lewis stock is used as a harvest indicator stock for ocean and in-river fisheries. The North Fork Lewis stock has exceeded its escapement objective of 5,700 every year since 1980 except that it was below goal in 1999 with an escapement of about 3,200 adults. The escapement shortfall has been attributed to severe flooding events in 1995 and 1996. Despite expected escapement shortfalls in 2000 preliminary estimates suggest that the actual escapement was close to 8,700 adults, again well above goal. Given the long history of healthy returns, NMFS does not anticipate the need to take specific management actions in the ocean to protect the bright component of the LCR ESU in 2001. NMFS does expect that the management agencies will continue to take appropriate actions through their usual authorities, to ensure that the escapement goals continue to be met.

Unlike the spring stocks or the bright component of the ESU, LCR tule stocks are impacted substantially in PFMC fisheries. There are only two or three self-sustaining populations of tule chinook in the Lower Columbia River (Coweeman, East Fork Lewis, and possibly Clackamas) that are not substantially influenced by hatchery strays. Apart from these stocks, the system is dominated by hatchery production and whatever natural spawning does occur is heavily influenced by hatchery strays. The effect of hatchery operations on the ESU is currently the subject of a separate consultation. Tule production in the lower River has already been reduced by more than half as a result of funding reductions.

NMFS reviewed the status of LCR tules in the recent PST opinion. Tules will benefit substantially from the ocean harvest regime in the Pacific Salmon Treaty (PST) agreement because of this ocean distribution, which is centered off the west coast of Vancouver Island and the Washington coast. NMFS developed a preliminary Recovery Exploitation Rate (RER) for the Coweeman population of 65 percent as part of the PST consultation. Although further review of this estimate is warranted, NMFS believes that the RER of 65% for the Coweeman stock is consistent with its continued survival and recovery, and expects the PFMC fisheries to be managed such that the total ER does not exceed that level.

However, NMFS also expects that management constraints for other stocks will result in exploitation rates that are substantially lower than 65%. The exploitation rate on LCR tule chinook in recent years (1996-2000) averaged 36%. The general circumstances that have restrained fisheries in recent years are not expected to change in the near future. Further work on the tule component of the LCR ESU is required, but NMFS believes that the appropriate course is to integrate future harvest management actions with recovery planning efforts that will seek to rebuild a broad range of self-sustaining, naturally producing tule stocks.

Upper Columbia River Spring Chinook
Upper Willamette River Chinook Salmon
Snake River Spring/Summer Chinook

Spring stocks from the Upper Columbia River and Willamette River Basins and spring/summer stocks from the Snake River are rarely caught in PFMC fisheries. Management actions designed to limit catch from these ESUs beyond what will be provided by harvest constraints for other stocks are therefore not considered necessary.

Snake River Fall Chinook Salmon

NMFS' guidance with respect to Snake River fall chinook is unchanged from 2000. NMFS requires that the Southeast Alaska, Canadian, and PFMC fisheries, in combination, achieve a 30% reduction in the total age-three and age-four adult equivalent exploitation rate relative to the 1988-1993 base period. The PFMC fisheries therefore must be managed to ensure that the 30% base period reduction criterion for the aggregate of all ocean fisheries is achieved.

Sacramento River Winter Chinook Salmon

The guidance provided for winter chinook has not changed from that required by the February 18, 1997, amendment to the March 8, 1996, biological opinion. The 1997 amendment required that ocean fishery impacts on winter chinook be reduced sufficiently to achieve a three year adult replacement rate of 1.77, which is 31% above the average replacement rate observed for the 1989 to 1993 brood years.

NMFS shares the Salmon Technical Team's concern, expressed in Preseason Report I, regarding the lack of a winter chinook preseason predictor, and the ability of the Team to evaluate proposed fishery management measures with respect to the requirements of the biological opinion. For the past five years, the ESA requirement for winter chinook has been assessed preseason by the STT using the winter chinook ocean harvest model (WCOHM). The WCOHM uses the ocean recovery and spawning escapement data from wild fin clipped winter chinook (1969 and 1970 broods) and generates two stock projections which are compared for relative effects of season length and minimum size limits on spawning escapement. The model does not predict anticipated winter chinook impacts or escapement. The 1997 amendment to the 1996 biological opinion explained that a target replacement rate of 1.77 was chosen because it provided a high probability (.8) of achieving positive growth in any given year. The adult replacement rates of winter chinook since 1997 have both exceeded and fallen short of the 1.77 rate required by the biological opinion. However, since 1997, the population has demonstrated positive growth in every year, with a mean three year adult replacement rate of 1.69. Prior to the 2002 seasons, NMFS will reinitiate consultation on the effects of ocean harvest on winter chinook and assess the effectiveness of the requirements of the current biological opinion.

Central Valley Spring Chinook Salmon

The Central Valley spring chinook ESU was listed as threatened effective November 15, 1999. NMFS' April 18, 2000, biological opinion on the effects of ocean harvest on Central Valley spring chinook and California coastal chinook, concluded that ocean salmon fisheries, as regulated under the FMP and NMFS biological opinions for winter chinook, were not likely to jeopardize the continued existence of Central Valley spring chinook. The opinion noted that the two week delay in the opening of the recreational seasons south of Point Arena implemented for the 2000 season would provide additional protection to spring chinook.

The recent increases in spawner abundance of Central Valley spring chinook populations relative to parent broods continued in 2000. For the 2001 season, NMFS believes that the existing ESA consultation standards for Sacramento River winter chinook will afford sufficient protection to Central Valley spring chinook and that no additional protective measures will be necessary for the

ESU. NMFS recommends that the delayed opening of the recreational seasons south of Point Arena be continued for the 2002 seasons.

California Coastal Chinook Salmon

The California Coastal chinook ESU was listed as threatened effective November 15, 1999. The absence of reliable estimates of ocean exploitation rates on Central Valley chinook and the uncertainty regarding population abundance and short term trends for California coastal chinook populations make it difficult to assess the potential for coastal chinook populations to recover under the existing salmon FMP conservation objectives and ESA requirements. Ocean exploitation rates on California coastal chinook have likely declined in recent years with the reduction in ocean harvest rates on Klamath River fall chinook and as a result of ESA constraints to protect Sacramento River winter chinook. The April 18, 2000 biological opinion for coastal chinook considered the uncertainty regarding population trends and the magnitude of ocean harvest rates on the populations in the ESU. The opinion concluded that ocean fisheries would likely jeopardize the continued existence of coastal chinook if ocean harvest rates on coastal chinook were to rise substantially above those observed in recent years. The opinion requires that the age-four ocean harvest rate forecast for Klamath River fall chinook not exceed 0.17, which is the maximum observed since 1996. The guidance is intended to prevent harvest impacts on California Coastal chinook from increasing substantially above levels that have occurred since 1996, the year in which additional ocean harvest constraints were introduced to protect winter chinook.

Coho Salmon

NMFS considered the effects of west coast ocean fisheries on listed populations of coho salmon in a supplemental biological opinion dated April 28, 1999. The opinion provided ESA consultation standards for the three listed ESUs in Oregon and California: Oregon Coastal, Southern Oregon/Northern California Coastal, and Central California Coastal coho salmon. The requirements of that opinion, which are summarized below, will remain in effect for the 2001 season.

Oregon Coastal Coho Salmon

Amendment 13 provides separate exploitation rate targets for four Oregon Coastal Natural (OCN) sub-stocks that depend on measures of prior escapement and ocean survival. NMFS requires that the three northern sub-stocks be managed according to the provisions of Amendment 13. The southern sub-stock is part of the Southern Oregon/Northern California Coastal Coho ESU and will be managed in accordance with the requirements for that ESU.

When the PFMC adopted Amendment 13 in 1997, they stipulated that it should be reviewed and updated on a periodic basis. In November of 1999, the Council approved the formation of an ad hoc OCN workgroup to complete the review. The subsequent report recommend several changes to the original management matrix including a lower range of harvest rates when spawner abundance and marine survival are very low. At its November, 2000 meeting the Council adopted the OCN workgroup report as "expert biological advice to help guide Council management of OCN coho." The report recommends that harvest rates be limited to the range of 0-8% when the status of parental spawners is "critical" for any of the sub-aggregates populations regardless of marine survival. This is the circumstance we face this year. The applicable parental spawner status is critical. Even though the marine survival will apparently be in the medium category, the report recommends a 0-8% exploitation rate. The guidance provided by the workgroup report given the circumstances for 2001 are more specific and more conservative than under the original Amendment 13 management matrix. NMFS strongly supports the workgroup's recommendations and encourages adoption of options that fall within the range of 0-8%.

Southern Oregon/Northern California Coastal Coho Salmon

NMFS' 1999 biological opinion requires that management measures developed under the FMP must be designed to achieve an ocean exploitation rate on Rogue/Klamath hatchery stocks of no greater than 13%, the lowest exploitation rate on OCN sub-aggregates specified under Amendment 13. During the past five years, exploitation rates on southern Oregon/northern California coho have been projected to be equal to, or lower than, the rate projected for OCN coho. For the 2001 season, NMFS recommends that the projected ocean exploitation rate on Rogue/Klamath hatchery stocks again not exceed that estimated for OCN coho.

Central California Coastal Coho Salmon

Little information on past harvest rates or current hooking mortality incidental to chinook fisheries exists for Central California Coastal coho. For the 2001 season, coho-directed fisheries and coho retention in chinook-directed fisheries will continue to be prohibited off California.

Chum Salmon

Hood Canal Summer Chum

Chum salmon are not targeted or caught incidentally in PFMC salmon fisheries. Management constraints in ocean fisheries for the protection of Hood Canal summer chum are also not considered necessary.

Sockeye Salmon

Snake River Sockeye Salmon
Ozette Lake Sockeye Salmon

Sockeye salmon are not targeted or caught incidentally in PFMC salmon fisheries. Management constraints in ocean fisheries for the protection of listed sockeye salmon are therefore not considered necessary.

Steelhead

NMFS has listed two ESUs of steelhead as endangered and seven ESUs as threatened in Washington, Oregon, Idaho, and California. Steelhead are rarely caught in ocean fisheries and ocean fishery management actions that seek to shape fisheries to minimize impacts to steelhead are not considered necessary. The Council and states should prohibit the retention of steelhead in ocean recreational fisheries to minimize the effect of whatever catch may occur.

Please call if you have additional questions.

Sincerely,

Donna Darm
Acting Regional Administrator
Northwest Region

for Rebecca Lent
Regional Administrator
Southwest Region