

substantial number of small businesses, small governments, or small organizations. The reasons for this conclusion are discussed in the June 30, 1992 proposal.

List of Subjects in 40 CFR Part 180

Administrative practice and procedure, Agricultural commodities, Pesticides and pests, Reporting and recordkeeping requirements.

Dated: June 8, 1993.

Susan H. Wayland,
Acting Assistant Administrator for
Prevention, Pesticides and Toxic Substances.

Therefore, 40 CFR part 180 is amended as follows:

PART 180—[AMENDED]

1. The authority citation for part 180 continues to read as follows:

Authority: 21 U.S.C. 346a and 371.

§ 180.319 [Amended]

2. In the table to § 180.319 *Interim tolerances* by removing the entry for silvex from the list.

§ 180.340 [Removed]

3. By removing § 180.340 *Silvex; tolerances for residues.*

[FR Doc. 93-14196 Filed 6-15-93; 8:45 am]

BILLING CODE 6560-50-F

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 90

[PR Docket No. 91-66; FCC 93-262]

Private Land Mobile Radio Services; Secondary Fixed Operations in the 450-470 MHz Frequency Band

AGENCY: Federal Communications Commission.

ACTION: Final rule; petition for reconsideration.

SUMMARY: In response to petitions for clarification received, this document clarifies frequency coordination procedures for secondary fixed operations in the 450-470 MHz band.

EFFECTIVE DATE: June 16, 1993.

FOR FURTHER INFORMATION CONTACT: Eugene Thomson, Rules Branch, Land Mobile and Microwave Division, Private Radio Bureau, (202) 634-2443.

SUPPLEMENTARY INFORMATION:

Summary of Memorandum Opinion and Order

In response to petitions submitted by Forest Industries Telecommunications

(FIT) and the Manufacturers Radio Frequency Advisory Committee (MRFAC), this Memorandum Opinion and Order clarifies rules adopted in the Report and Order, PR Docket No. 91-66, 57 FR 24991, June 12, 1992, concerning the procedures frequency coordinators use when recommending frequencies in the 450-470 MHz band for secondary fixed use. It also denies the request by FIT that the Commission reconsider its decision to permit secondary fixed use of the frequencies in urban areas.

Regulatory Flexibility Analysis

A Final Regulatory Flexibility Analysis was prepared for the Report and Order in this proceeding. None of the rules adopted in this Memorandum Opinion and Order modify the effect this proceeding has on small businesses and it is, therefore, unnecessary for us to modify our Final Regulatory Flexibility Analysis.

Paperwork Reduction Act Statement

The action contained herein has been analyzed with respect to the Paperwork Reduction Act of 1980 and found to contain no new or modified form, information collecting and/or recordkeeping, labeling, disclosure, or record retention requirements, and will not increase burden hours imposed upon the public.

List of Subjects in 47 CFR Part 90

Radio, Secondary fixed.

Amendatory Text

Part 90 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

PART 90—PRIVATE LAND MOBILE RADIO SERVICES

1. The authority citation for part 90 continues to read:

Authority: Sections 4, 303, and 332, 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303, and 332, unless otherwise noted.

2. Section 90.261 is amended by revising paragraph (e) to read as follows:

§ 90.261 Assignment and use of the frequencies in the band 450-470 MHz for fixed operations.

(e) Coordination of assignable frequencies subject to the provisions of this section will be permitted by any certified frequency coordinator. If an applicant elects to obtain a frequency recommendation from the certified frequency coordinator for the service in which the applicant is eligible, the coordinator shall first attempt to recommend a frequency within the applicant's own radio service. If none

are available, the coordinator may then recommend a frequency allocated to another radio service. If an applicant elects to obtain a frequency recommendation from a certified coordinator of a service in which the applicant is not eligible, that coordinator may only recommend a frequency allocated to the service for which the coordinator is certified. If a coordinator recommends a frequency allocated to a service where the applicant is not eligible on a primary basis, or if a recommended frequency is shared by more than one radio service on a primary basis, then the coordinator must notify all coordinators certified to recommend that frequency on a primary basis. If any of these coordinators objects to a recommendation, they must notify the coordinator making the frequency recommendation of such objection within 10 working days, as calculated in accordance with § 1.4 of the Rules, from receipt of the notification. The recommending coordinator should attempt to resolve any objections raised by the notified coordinators and may not submit the application to the Commission prior to the expiration of this 10-day period.

* * * * *
Federal Communications Commission.
Donna R. Searcy,
Secretary.
[FR Doc. 93-14091 Filed 6-15-93; 8:45 am]
BILLING CODE 6712-01-M

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 226

[Docket No. 920783-3085]

Designated Critical Habitat; Sacramento River Winter-Run Chinook Salmon

AGENCY: National Marine Fisheries Service (NMFS), NOAA, Commerce.
ACTION: Final rule.

SUMMARY: NMFS is designating critical habitat for the Sacramento River winter-run chinook salmon (*Oncorhynchus tshawytscha*) pursuant to the Endangered Species Act (ESA). The habitat for designation includes: The Sacramento River from Keswick Dam, Shasta County (River Mile 302) to Chipps Island (River Mile 0) at the westward margin of the Sacramento-San Joaquin Delta; all waters from Chipps Island westward to Carquinez Bridge, including Honker Bay, Grizzly Bay, Suisun Bay, and Carquinez Strait; all

waters of San Pablo Bay westward of the Carquinez Bridge; and all waters of San Francisco Bay (north of the San Francisco/Oakland Bay Bridge) from San Pablo Bay to the Golden Gate Bridge. Maps are available on request (see ADDRESSES). In addition, the critical habitat designation identifies those physical and biological features of the habitat that are essential to the conservation of the species and that may require special management consideration or protection. The economic and other impacts resulting from this critical habitat designation, over and above those arising from the listing of the species under the ESA, are expected to be minimal. The designation of critical habitat provides explicit notice to Federal agencies and the public that these areas and features are vital to the conservation of the species.

EFFECTIVE DATE: July 16, 1993.

ADDRESSES: Requests for maps should be addressed to William W. Fox, Jr., Director, Office of Protected Resources, NMFS, 1335 East-West Highway, Silver Spring, MD 20910, or Gary Matlock, Acting Regional Director, Southwest Region, NMFS, 501 W. Ocean Blvd., suite 4200, Long Beach, CA 90802.

FOR FURTHER INFORMATION CONTACT: James H. Lecky, NMFS, Southwest Region, Protected Species Management Division, (310) 980-4015, or Margaret Lorenz, NMFS, Office of Protected Resources, (301) 713-2322.

SUPPLEMENTARY INFORMATION:

Background

Although winter-run chinook salmon are currently listed as threatened (55 FR 46515, November 5, 1990), NMFS published a proposed rule to reclassify the species as endangered on June 19, 1992 (57 FR 27416).

On August 14, 1992 (57 FR 36662), NMFS published a proposed rule to designate critical habitat for Sacramento River, California, winter-run chinook salmon. NMFS also completed an assessment that focused on identifying the economic consequences (costs and benefits) of implementing alternative water management strategies to achieve specific temperature and flow criteria for various alternative critical habitat designations (Final Report, Evaluation of Economic Impacts of Alternatives for Designation of Winter-run Chinook Salmon Critical Habitat in the Sacramento River, Hydrosphere Resource Consultants, July 1991). In addition, NMFS prepared an environmental assessment (EA), pursuant to the National Environmental Policy Act (NEPA), to evaluate both the

environmental and economic impacts of the proposed critical habitat designations.

NMFS is designating critical habitat for the Sacramento River winter-run chinook salmon as described in the proposed rule, excluding South San Francisco Bay. Because the area designated is consistent with the criteria established by the definition of critical habitat under section 3(5)(A) of the ESA. No significant new information regarding winter-run chinook salmon biology or Federal agency activities was received during the comment period.

Comments and Responses

State agencies, county governments, Federal agencies and other interested parties were notified and requested to comment on the proposed rule. Public hearings on the proposed rule were held November 16, 17, and 18, 1992, in Fresno, Sacramento, and Willows, California, respectively. Thirty-three individuals presented testimony at these hearings. During the 154-day comment period, NMFS received 37 written comments from government agencies, non-government organizations and individuals on the proposed rule. These comments are addressed below.

Geographic Extent of Critical Habitat

Comments: Several commenters recommended that the proposed geographic range of critical habitat for winter-run chinook salmon be revised. For example, five commenters recommended that NMFS include the open ocean habitat used by winter-run chinook salmon in the designation. One commenter recommended that only the McCloud and Pitt Rivers be designated as critical habitat for winter-run chinook. Another suggested that Clear Creek and Cottonwood Creek be included in the designation. One commenter recommended that the designation be expanded to include several tributaries of the San Joaquin River and portions of the Mokelumne River, Georgiana Slough, and other waterways in the Sacramento-San Joaquin Delta. Two others recommended that San Francisco Bay and San Pablo Bay not be included. Several commenters expressed concern that the definition of riparian zone in the critical habitat designation was too vague.

Response: Critical habitat is defined in section 3(5) of the ESA as the specific areas within the geographic area occupied by the species on which are found those physical or biological features that are essential to the conservation of the species and that may

require special management considerations or protection.

Although it is important, NMFS has not included the open ocean habitat used by winter-run chinook salmon because this area does not appear to be in need of special management consideration or protection. Degradation of this portion of the species habitat, and other factors associated with the open ocean, such as commercial and recreational fishing, do not appear to be significant factors in the decline of the species. In addition, existing laws appear adequate to protect these areas, and special management of this habitat is not considered necessary at this time. Also, during the comment period, NMFS did not receive any new information indicating that degradation of ocean habitat or other factors associated with the open ocean are significant factors in the decline of the species. However, NMFS will continue to monitor activities in the open ocean to determine if it needs to be included in the critical habitat designation, and will continue to consult under section 7 of the ESA to address Federal actions that may affect the species or result in takings in the open ocean.

Areas outside the current geographical area occupied by a species that are determined to be essential for its conservation also may be included in a critical habitat designation under section 3(5) of the ESA. Before construction of Shasta and Keswick Dams, winter-run chinook were reported to have spawned in the upper reaches of the McCloud, lower Pitt, and Little Sacramento Rivers. However, the geographic extent of spawning habitat on these rivers before construction of Shasta and Keswick dams is largely speculative or unknown. Significant hydropower development in the 1920's is thought to have significantly reduced any available habitat for winter-run spawning on the Pitt River. Construction of Shasta and Keswick Dams in the early 1940's completely blocked access by winter-run chinook to any spawning habitat above the dams, and construction of passage facilities is not practical. However, subsequent operations of these dams by the Bureau of Reclamation (Bureau) created new habitat below Keswick Dam due to the release of cold water from Shasta reservoir into the mainstem of the Sacramento River. This habitat did not exist before operation of Shasta/Keswick Dams, but is now essential to the continued existence of winter-run chinook salmon.

NMFS agrees that Clear Creek, Cottonwood Creek, and other tributaries of the Sacramento River deliver gravel

for spawning substrate for winter-run chinook salmon and that clean gravel is an essential physical feature for the conservation of the species. However, since these tributaries are not, in themselves, essential for the conservation of winter-run chinook salmon, NMFS has not included them in the critical habitat designation. But, agency actions that may destroy or modify critical habitat features, even if the actions occur outside the designated habitat area, are subject to section 7 of the ESA. NMFS will monitor activities that occur in these tributaries that may adversely impact winter-run chinook or essential habitat features to ensure that recovery of the species is not impeded.

Until 1984, a small number of winter-run chinook salmon returned annually to a tributary to the lower San Joaquin River in the upper Calaveras River and spawned below New Hogan Dam. Exceptionally low flows due to the operation of New Hogan Dam and the 1987-1992 drought appear to have eliminated this group. NMFS has determined that the San Joaquin River Basin is not essential for the conservation of the Sacramento River winter-run chinook salmon population. Therefore, the upper Calaveras River is not included in the critical habitat designation for Sacramento River winter-run chinook salmon.

The Sacramento-San Joaquin Delta contains less suitable habitat for winter-run chinook salmon than habitat that is found in the Sacramento River. It has been estimated that as much as 25 to 40 percent of juvenile winter-run chinook salmon may be diverted into the Delta at the Delta Cross Channel. Once diverted through the Cross Channel, juveniles are subject to adverse conditions that decrease their survival. For instance, diverted juveniles may be subject to a longer migration route where fish are exposed to predation, higher water temperatures, unscreened diversions, poor water quality, reduced availability of food, and entertainment in Delta pumps.

NMFS' goal is to minimize diversion of winter-run chinook salmon in the Cross Channel. However, NMFS included measures in its 1992 and 1993 biological opinions on the operation of the Central Valley Project and State Water Project to exclude winter-run chinook salmon from the central Delta. For these reasons, rivers and sloughs of the Delta are not essential for the conservation of winter-run chinook salmon and are not included in the critical habitat designation.

Water quality is an essential feature of winter-run chinook salmon habitat. For instance, dredging activities may

degrade habitat used by winter-run chinook salmon in San Francisco Bay and elsewhere. In the past, NMFS has evaluated dredging projects both in terms of their quantitative and qualitative impact on water quality. Currently, small scale dredging projects, typically of 100,000 cubic yards or less, are thought to have minor impact while larger projects are thought to have potentially significant impacts on water quality. Because juvenile winter-run chinook salmon may ingest prey organisms with high levels of contaminants (i.e., DDT, PCB's) during their outmigration through San Francisco Bay, dredging activities in the Bay will most likely continue to require special management considerations to conserve winter-run chinook. No new information on the effects of dredging on water quality was received during the comment period.

Also, NMFS wants to clarify that South San Francisco Bay is not included in the critical habitat designation because it is not considered an essential component of winter-run chinook salmon's migration corridor to the Pacific Ocean. However, all the waters of San Pablo Bay and San Francisco Bay north of the San Francisco/Oakland Bay Bridge are included in the critical habitat designation.

Riparian zones. In the Sacramento River, critical habitat includes the river water, river bottom, and the adjacent riparian zone. According to a 1983 report by the Dept. of Agriculture, riparian zones are those adjacent terrestrial areas that directly affect a freshwater aquatic ecosystem. A 1992 report by the U.S. Fish and Wildlife Service states that riparian streambanks are composed of natural, eroding substrates supporting vegetation that either overhangs or protrudes into the water and, consequently, provides shade and escape cover for salmonids and other wildlife. Riparian vegetation also increases river productivity which, in turn, provides prey for salmonids.

Riparian zones on the Sacramento River are considered essential for the conservation of winter-run chinook salmon because they provide important areas for fry and juvenile rearing. For example, studies of chinook salmon smolts in the middle reaches of the Sacramento River found higher densities in natural, eroding bank habitats with woody debris (Michny 1988). Because adverse modification of riparian zones along the Sacramento River may impede the recovery of winter-run chinook salmon, the "adjacent riparian zone" is included in the critical habitat designation for winter-run chinook. However, because

influences of riparian vegetation progressively decrease away from the water source (e.g., river); riparian areas cannot be defined by discrete boundary zones. Therefore, NMFS is limiting the "adjacent riparian zones" to only those areas above a streambank that provide cover and shade to the nearshore aquatic areas.

Economic Impacts—Incremental Approach

Comments: Nine commenters believe that NMFS improperly minimized the economic impacts by separating the designation of critical habitat from the listing process (i.e., incremental approach). These are concerned that by separating the costs associated with the various regulatory actions (e.g., listing, critical habitat designation, section 7), NMFS underestimated the real economic consequences of protection of winter-run chinook salmon as required by the ESA. Several commenters objected to NMFS' interpretation that the impact of critical habitat designation only duplicates the protection provided under section 7 of the ESA. Also, several commenters believe that using an incremental approach for critical habitat designation renders sections of the ESA meaningless and circumvents the intent of Congress.

Response: NMFS concludes that the economic impact of designating critical habitat will have only a small incremental increase in impacts above those resulting from the listing. The law is unambiguous in both its prohibition of the consideration of economics in the listing process and its requirement to analyze the economic impact of designating critical habitat. These disparate requirements for each determination lead to an incremental analysis in which only the economic impacts resulting from the designation of the critical habitat are considered.

NMFS disagrees with the assertion that the incremental approach to critical habitat designation renders designation meaningless. Critical habitat is important because it identifies habitat that is essential for the continued existence of a species and that may require special management measures. This facilitates and enhances Federal agencies' ability to comply with section 7 by ensuring they are aware of the habitat that should be considered in analyzing the effects of their activities on listed species and habitats essential to support them. In addition to aiding Federal agencies in determining when consultations are required pursuant to section 7(a)(2), critical habitat can aid an agency in fulfilling its broader obligation under section 7(a)(1) to use

its authority to carry out programs for the conservation of listed species.

Several commenters asserted that the incremental approach fails to take into account the substantial effect on non-Federal interests that will suffer the effects of designation to the extent they must receive Federal approvals or funds to conduct their activities. Whether or not critical habitat is designated, non-Federal interests must conduct their actions consistent with the requirements of the ESA. When a species is listed, non-Federal interests must comply with the prohibitions on takings under section 9 or associated regulations. If the activity is funded, permitted or authorized by a Federal agency, that agency must comply with the non-jeopardy mandate of section 7 of the ESA. In addition, once critical habitat is designated, the agency must avoid actions that destroy or adversely modify that critical habitat. However, given definitions under 50 CFR 402.02, any action that destroys or adversely modifies critical habitat is likely to jeopardize the continued existence of the species. Therefore, NMFS does not anticipate that the designation will result in additional requirements for non-Federal interests.

Economic Impact Analysis

Comments: Fifteen comments questioned the adequacy of NMFS' economic impact analysis (Hydrosphere 1991). Several commenters objected to NMFS' determination that the proposed designation would have only minimal economic impacts. There were several comments on the expected costs of the proposed designation. Commenters also expressed concern that the analysis entirely ignored impacts resulting from possible reduction in water supply to areas south of the Sacramento-San Joaquin Delta. Two commenters believe the analysis failed to evaluate the impact of dredging delays or curtailed dredging on the economy of the San Francisco Bay Area. One commenter stated that the analysis contained no justification for the apparent economic benefits and two commenters stated that the analysis overestimated the beneficial impacts of the proposed rule on hydropower usage. One commenter believed that the additional administrative impacts of the proposed designation for winter-run chinook salmon were underestimated.

Response: Under section 4(b)(2) of the ESA, the Secretary is required to designate critical habitat on the basis of the best scientific data available and after taking into account the economic impact, and other relevant impacts, of specifying any particular area as critical

habitat. An area may be excluded from a critical habitat designation if the overall benefits of exclusion outweigh the benefits of designation and the exclusion will not result in the extinction of the species.

NMFS has concluded, based on an assessment of the economic impacts of designating critical habitat for winter-run chinook salmon, that the designation is not likely to have any additional adverse impacts on Federal, state, or private actions beyond those that already occur as a result of listing a species under the ESA. Although many of the comments received on the economic impact of the proposed designation suggested that the designation will have major economic costs, these costs are attributable to the economic impacts resulting from the listing of the species and not from designating its critical habitat.

Currently, Federal agencies active within the range of the winter-run chinook salmon are required to consult with NMFS regarding projects and activities they permit, fund, or otherwise carry out that may affect the species since the species is listed as threatened under the ESA. Thus, even without this critical habitat designation, Federal agencies would be required to consult with NMFS, in most if not all situations, if winter-run chinook salmon habitat might be adversely affected since any action that is likely to affect the habitat of winter-run chinook salmon would also be expected to affect the species. For example, on February 12, 1993, NMFS issued a biological opinion to the Bureau and the California Department of Water Resources (DWR) addressing the effects of Central Valley Project and State Water Project activities on winter-run chinook salmon. The biological opinion concluded that the proposed operation of these projects would likely jeopardize the continued existence of winter-run chinook salmon. With respect to Shasta and Keswick Dams, NMFS identified a specific reasonable and prudent alternative to avoid jeopardy that requires the Bureau to maintain end-of-water-year (September 30) carryover storage in Shasta Reservoir of 1.9 million acre feet. The alternatives ensure that suitable water temperature conditions are maintained in the upper Sacramento River during winter-run chinook salmon spawning and incubation periods and implement protective measures in the Delta to limit loss of juvenile fish at pumping plants. NMFS recognizes the requirements could have significant economic impacts. However, these measures are clearly required as a result of the listing of winter-run chinook

salmon; not critical habitat designation, since critical habitat had not been designated at the time the biological opinion was issued.

Hydrosphere evaluated the economic impacts of implementing various water management alternatives (i.e., specific temperature and instream flow criteria within the geographically defined critical habitat) that NMFS believes would improve the critical habitat of winter-run chinook salmon and, therefore, benefit the species. NMFS is currently using these same general hydrologic attributes to determine whether proposed or existing actions are likely to result in jeopardy to winter-run chinook salmon. For this reason, it is difficult to separate the estimated costs of the critical habitat designation from the costs associated with listing the species and the resulting prohibition on taking. For the purpose of this analysis, costs associated with achieving the identified hydrologic attributes (e.g., minimum flow requirements and temperature goals) within the critical habitat designation were analyzed. The resulting changes in hydrology and associated economic costs or benefits were then estimated.

Although information was requested from relevant Federal agencies on the potential impacts of the proposed designations on their operations and management of systems over which they have direct control or regulatory authority, a few agencies, including the Bureau, could not provide the requested information. Therefore, without responses from all Federal agencies, some costs associated with alternative management measures had to be estimated or were not identified. Although NMFS recognizes that the Hydrosphere report may not be complete, the analysis was broader than the impacts of a critical habitat designation. Therefore, it is not necessary to revise or update the Hydrosphere report before final designation of critical habitat.

Seasonal Designation

Comments: One commenter recommended that critical habitat for winter-run chinook salmon be designated on a seasonal basis, suggesting that it could be based on the seasonal distribution of different winter-run chinook life history stages (e.g., breeding and rearing areas).

Response: A seasonal critical habitat designation for Sacramento river winter-run chinook salmon is not appropriate because it would not be practical or beneficial for the conservation of the species. Due to the life history of winter-run chinook salmon, either eggs, fry,

juveniles, or adults are present almost year-round in the Sacramento River. Therefore, impacts to winter-run critical habitat need to be evaluated on a year-round basis.

Increase in 1992 Spawning Escapement

Comment: One commenter believes that designation of critical habitat is not justified and is no longer necessary because of the increase in the 1992 spawning escapement.

Response: The designation of critical habitat is a statutory requirement under section 4(a)(3) of the ESA.

Improvements in spawning escapement do not affect this statutory requirement.

Impact of Critical Habitat Designation

Comment: Several commenters stated that designating critical habitat for winter-run chinook salmon was a "major rule" because the economic impacts will be greater than \$100 million and recommended that NMFS conduct a regulatory impact analysis under E.O. 12291 and under the Regulatory Flexibility Act. Two other commenters recommended that NMFS prepare an environmental impact statement (EIS) pursuant to the National Environmental Policy Act on the critical habitat designation because designation is a major Federal action and will have a significant impact on the environment.

Response: NMFS has concluded that the economic impacts of designating critical habitat for winter-run chinook salmon are minimal and the designation is not a major rule because these economic costs are not greater than \$100 million. Also, NMFS completed an Environmental Assessment pursuant to NEPA and concluded that this measure would not result in any significant adverse environmental impacts. Therefore, NMFS has determined that a regulatory impact analysis and/or an EIS are not necessary.

Recovery Plan

Comment: One commenter recommended that NMFS delay critical habitat designation for winter-run chinook salmon until a recovery plan is developed in order to allow for an adequate evaluation of the impacts of the critical habitat designation.

Response: In 1992, NMFS appointed a recovery team to develop a recovery plan for Sacramento River winter-run chinook salmon. The team will likely require a year to complete a draft recovery plan. NMFS does not have the authority to delay the designation of critical habitat. However, if new information becomes available from the Recovery Team or other sources, NMFS

may revise the designation as provided under section 4(A)(3)(b) of the ESA.

Public Health

Comments: Three commenters were concerned about the impacts of the critical habitat designation on public health. One commenter believed that critical habitat designation could restrict Butte County Mosquito Abatement District's ability to use pesticides to control disease-vectoring mosquitos that use the back-waters of the Sacramento River as breeding grounds and harborage.

Response: Actions such as these that may adversely impact critical habitat may also adversely affect the species, and would be evaluated under section 7 or 10 of the ESA with or without critical habitat designation.

Notice of Proposed Rule

Comments: Two commenters stated that they were not provided with adequate notice of the proposed designation of critical habitat for winter-run chinook salmon.

Response: After NMFS became aware that some counties that may be affected by the winter-run chinook salmon critical habitat designation were not notified of the proposed rulemaking, NMFS extended the public comment period an additional 60 days.

Primary Constituent Elements

Comments: Two commenters recommended that "primary constituent elements" (e.g., water quality and quantity standards) specified in the proposed rule under "Need for Special Management Consideration or Protection" should be included as part of the regulatory requirements of the critical habitat designation for winter-run chinook salmon.

Response: The primary constituent elements that are described under the "Need for Special Management Considerations or Protection" discussed in the proposed rule are provided to inform the public and to provide general guidance to Federal agencies. The recommended temperature and flow criteria have not been included in the regulatory text describing critical habitat; rather, this discussion is to alert the public to recommendations that NMFS may make on a case-by-case basis as part of the section 7 consultation process. For instance, NMFS has required some of these criteria to be achieved through a biological opinion issued to the Bureau of Reclamation that includes requirements for reasonable and prudent alternatives to be implemented to achieve a likelihood of non-jeopardy to winter-run chinook

salmon. NMFS does not have the expertise to regulate water quality and quantity criteria for Federally-permitted water projects. Requiring Federal agencies to use their own expertise through the section 7 consultation process is a more effective method of obtaining adequate water quality and quantity standards.

Procedural Methodology

Comments: One commenter expressed concern that NMFS did not publish the standards it used to evaluate the economic impacts of winter-run chinook salmon critical habitat designation. This commenter recommended that NMFS publish the standards it will use to evaluate economic impacts such as direct or indirect job losses, regional or national analysis, short-term or long-term analysis.

Response: Due to the variety of habitats and human activities, NMFS analyzes economic impacts of particular actions on a case-by-case basis. The economic study conducted by NMFS does describe the accounting perspective in terms of both a state-wide and national perspective. The analysis also considers indirect impacts of specific management measures as well as direct impacts.

Water Quality Criteria and Standards—Decision 1630

Comment: A commenter suggested that conditions required by the critical habitat designation should take into consideration the new regulatory framework set forth by the State Water Resources Control Board's Decision 1630.

Response: Since the State Water Resources Control Board has not adopted Decision 1630 (which includes criteria for water quality and quantity standards), NMFS did not consider it in the critical habitat designation for winter-run chinook salmon.

Essential Habitat of the Sacramento River Winter-run Chinook Salmon

Physical and biological features that are essential for the conservation of winter-run chinook salmon, based on the best available information, include (1) access from the Pacific Ocean to appropriate spawning areas in the upper Sacramento River, (2) the availability of clean gravel for spawning substrate, (3) adequate river flows for successful spawning, incubation of eggs, fry development and emergence, and downstream transport of juveniles, (4) water temperatures between 42.5 and 57.5°F (5.8 and 14.1°C) for successful spawning, egg incubation, and fry

development, (5) habitat areas and adequate prey that are not contaminated, (6) riparian habitat that provides for successful juvenile development and survival, and (7) access downstream so that juveniles can migrate from the spawning grounds to San Francisco Bay and the Pacific Ocean.

Need for Special Management Considerations or Protection

In the identified habitat areas, NMFS has determined that certain physical and biological features may require special management considerations or protection. In particular, specific water temperature criteria, minimum instream flow criteria, and water quality standards represent physical features of the winter-run chinook salmon's habitat that are essential for the species' conservation and that may require special management. Similarly, biological features of the designated critical habitat that are considered vital for winter-run chinook salmon include unimpeded adult upstream migration routes, spawning habitat, egg incubation and fry emergence areas, rearing areas for juveniles, and unimpeded downstream migration routes for juveniles. Again, these habitat features may require special management.

Special considerations and protection for these and other habitat features will be evaluated during the section 7 process and in the development and implementation of a recovery plan for winter-run chinook salmon. If adequate protection cannot be provided through consultation or through the recovery planning process, separate management actions with binding requirements may be considered.

Activities That May Affect the Essential Habitat

A wide range of activities may affect the essential habitat requirements of winter-run chinook salmon. These activities include water management operations by the Bureau of Reclamation's Central Valley Project (e.g., Shasta and Keswick Dams, Red Bluff Diversion Dam, the Tehama-Colusa Canal, the Delta Cross Channel, and delta export facilities) that affect the Sacramento River and Delta, water management operations by the California Department of Water Resource's State Water Project (including export of water from the Sacramento-San Joaquin Delta) that affect both the Sacramento River and Delta, small and large water diversions by private entities such as the Anderson-Cottonwood Irrigation District and the Glenn-Colusa Irrigation District

that are located on the Sacramento River, bank restoration activities by the U.S. Army Corps of Engineers (Corps) in the Sacramento River and Sacramento-San Joaquin Delta, and Corps permitting activities that authorize dredging and other construction-related activities in the Sacramento River, Sacramento-San Joaquin Delta, and San Francisco Bay.

The Federal agencies that most likely will be affected by this critical habitat designation include the U.S. Bureau of Reclamation, the Corps, the U.S. Fish and Wildlife Service, the Federal Energy Regulatory Commission, the U.S. Navy, and NMFS. This designation will provide clear notification to these agencies, private entities, and the public of the existence of critical habitat for winter-run chinook salmon and the boundaries of the habitat and the protection provided for that habitat by the section 7 consultation process. This designation will also assist these agencies, and others as required, in evaluating the potential effects of their activities on the winter-run chinook salmon and its critical habitat, and in determining when consultation with NMFS would be appropriate.

Expected Impacts of Designation Critical Habitat

Under section 7 of the ESA, Federal agencies are required to ensure that their actions are not likely to jeopardize the continued existence of listed species or to result in the destruction or adverse modification of listed species' critical habitat. Also, takings of winter-run chinook salmon are prohibited under regulations issued when the species was listed as threatened.

This action identifies specific habitat areas that have been determined to be essential for the conservation of the winter-run chinook salmon and that may be in need of special management considerations or protection. Also, this designation requires Federal agencies to evaluate their activities with respect to the critical habitat of winter-run chinook salmon and to consult with NMFS pursuant to section 7 of the ESA before engaging in any action that may affect the critical habitat. Federal agencies must ensure that their activities are not likely to result in the destruction or adverse modification of this critical habitat.

Currently, Federal agencies active within the range of the winter-run chinook salmon are required to consult with NMFS regarding projects and activities they permit, fund or otherwise carry out that may affect the species since it is listed as threatened under the ESA. Even without this critical habitat designation, Federal agencies are

required to consult with NMFS, in most if not all situations, if winter-run chinook salmon habitat might be adversely affected since any action that is likely to affect the habitat of winter-run chinook salmon would also be expected to affect the species.

Designation of critical habitat for winter-run chinook salmon is not likely to have any additional direct adverse economic impacts on Federal, state, or private activities beyond those that already occur as a result of listing a species under the ESA. Following designation of critical habitat, Federal agencies will continue to engage in section 7 consultations to determine if the actions they authorize, fund, or carry out are likely to jeopardize the continued existence of winter-run chinook salmon. With the designation, they will also need to address explicitly impacts to the species' critical habitat as well. However, this is not expected to materially affect the scope of future consultations or result in greater economic impacts since the impacts to winter-run chinook salmon habitat are already considered in section 7 consultations.

Hydrosphere evaluated the economic impacts of implementing various special water management alternatives (i.e., specific temperature and instream flow criteria within the geographically defined critical habitat) that NMFS believes would improve the critical habitat of winter-run chinook salmon and, therefore, benefit the species. NMFS is currently using these same general hydrologic attributes to determine whether proposed or existing actions are likely to result in jeopardy to winter-run chinook salmon. For this reason, it is difficult to separate the estimated costs of the critical habitat designation from the costs associated with listing the species and the taking prohibition. However, for the purpose of this analysis, costs associated with achieving the identified hydrologic attributes (e.g., minimum flow requirements and temperature goals) within the critical habitat designation were analyzed. The resulting changes in hydrology and associated economic costs or benefits were then estimated.

Some actions that would improve winter-run habitat were not included in the analysis conducted by hydrosphere since they (e.g., the Shasta temperature control device) are already in the planning or financing stages and are expected to be implemented regardless of whether critical habitat for winter-run chinook salmon is designated.

An evaluation of costs associated with achieving specified hydrologic attributes, such as minimum flow

requirements and temperature goals, within the designated critical habitat concluded that total economic benefits and costs would be about \$22.5 million and \$69.6 million, respectively, with an overall net economic benefit of \$12.9 million (hydrosphere 1991).

Critical Habitat; Essential Features

Based on available information, NMFS is designating critical habitat that is considered essential for the survival and recovery of the winter-run chinook salmon and that requires special management consideration or protection. The critical habitat designated by this rule includes areas that are currently used by winter-run chinook salmon including the Sacramento River, all waterways and bays westward of Chipps Island to San Francisco Bay, and San Francisco Bay.

Specific critical habitat includes (1) the Sacramento River from Keswick Dam, Shasta County (River Mile 302) to Chipps Island (River Mile 0) at the westward margin of the Sacramento-San Joaquin Delta, (2) all waters from Chipps Island westward to Carquinez Bridge, including Honker Bay, Grizzly Bay, Suisun Bay, and Carquinez Strait, (3) all waters of San Pablo Bay westward of the Carquinez Bridge, and (4) all waters of San Francisco Bay (north of the San Francisco/Oakland Bay Bridge) from San Pablo Bay to the Golden Gate Bridge and north of the San Francisco-Oakland Bay Bridge.

Within the Sacramento River, this designation includes the river water, river bottom (including those areas and associated gravel used by winter-run chinook salmon as spawning substrate), and adjacent riparian zone used by fry and juveniles for rearing. Also, in the areas westward from Sherman Island to Chipps Island, it includes Kimball Island, Winter Island, and Browns Island. In the areas westward from Chipps Island, including San Francisco Bay to the Golden Gate Bridge, it includes the estuarine water column and essential foraging habitat and food resources used by winter-run chinook salmon as part of their juvenile outmigration or adult spawning migration. This designation does not include any estuarine sloughs within San Francisco Bay or San Pablo Bay.

Although it is important, critical habitat does not include the open ocean habitat used by winter-run chinook salmon because this area does not appear to be in need of special management consideration. Degradation of this portion of the species' habitat, and other factors associated with the open ocean such as commercial and recreational fishing, do not appear to be

significant factors in the decline of the species. In addition, existing laws appear adequate to protect these areas, and special management of this habitat is not considered necessary at this time. However, NMFS will continue to monitor activities in this area to determine if it needs to be included in the critical habitat designation.

NMFS has not included specific areas outside the current geographical area occupied by winter-run chinook salmon in this designation since these areas are not considered essential for conservation of the species. Although some may recommend removing dams (e.g., Shasta and Keswick) along the Sacramento River so that the former upriver habitat could once again be made available to winter-run chinook salmon, NMFS has concluded that proper management of the existing habitat is sufficient to provide for the survival and recovery of this species. However, if sufficient habitat is not maintained below Shasta Reservoir to satisfy the spawning and survival requirements of winter-run chinook salmon, the future existence of the species would be jeopardized.

Classification

The Assistant Administrator for Fisheries, NOAA, has determined that this is not a "major rule" requiring a regulatory impact analysis under E.O. 12291. The regulations are not likely to result in (1) an annual effect on the economy of \$100 million or more, (2) a major increase in costs or prices for consumers, individual industries, Federal, state, or local government agencies, or geographic regions, or (3) a significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of U.S.-based enterprises to compete with foreign-based enterprises in domestic or export markets.

The General Counsel of the Department of Commerce has certified that this rule will not have a significant economic impact on a substantial number of small entities as described in the Regulatory Flexibility Act. The designation of critical habitat only duplicates and reinforces the substantive protection resulting from listing; therefore, the economic and other impacts resulting from designation are expected to be minimal, and a regulatory flexibility analysis is not required.

This rule does not contain a collection-of-information requirement for purposes of the Paperwork Reduction Act.

This rule does not contain policies with federalism implications sufficient

to warrant preparation of a federalism assessment under E.O. 12612.

The Assistant Administrator determined that this designation is consistent to the maximum extent practicable with the approved Coastal Zone Management Program of the State of California. This determination was submitted for review by the responsible State agency under section 3.7 of the Coastal Zone Management Act. Because the State did not respond within the statutory time period, agreement with the determination is inferred.

NOAA Administrative Order 216-6 states that critical habitat designations under the ESA, generally, are categorically excluded from the requirement to prepare an environmental assessment or an environmental impact statement. However, in order to more clearly evaluate the minimal impacts of the critical habitat designation, NMFS prepared an environmental assessment; copies are available on request (see ADDRESSES).

List of Subjects in 50 CFR Part 226

Endangered and threatened species.

Dated: June 9, 1993.

Nancy Foster,

Acting Assistant Administrator for Fisheries

For the reasons set forth in the preamble, 50 CFR part 226 is amended as follows:

PART 226—DESIGNATED CRITICAL HABITAT

1. The authority citation for part 226 continues to read as follows:

Authority: 16 U.S.C. 1533.

2. Subpart C, which was reserved, is added to part 226 to read as follows:

Subpart C—Critical Habitat for Fish

226.21 Sacramento River winter-run chinook salmon (*Oncorhynchus tshawytscha*).

Subpart C—Critical Habitat for Fish

§ 226.21 Sacramento River winter-run chinook salmon (*Oncorhynchus tshawytscha*).

The following waterways, bottom and water of the waterways and adjacent riparian zones: The Sacramento River from Keswick Dam, Shasta County (River Mile 302) to Chipps Island (River Mile 0) at the westward margin of the Sacramento-San Joaquin Delta, all waters from Chipps Island westward to Carquinez Bridge, including Honker Bay, Grizzly Bay, Suisun Bay, and Carquinez Strait, all waters of San Pablo Bay westward of the Carquinez Bridge,

and all waters of San Francisco Bay
(north of the San Francisco/Oakland
Bay Bridge) from San Pablo Bay to the
Golden Gate Bridge.

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