TABLE 52.1031.—EPA-APPROVED RULES AND REGULATIONS

State citation	Title/Subject	Date adopted by State	Date approved by EPA	Federal Register citation	52.1020	
*	*	*	*	*	*	*
119	Motor Vehicle Fuel Volatility Limit.	6/1/00	3/6/02	[Insert FR citation from published date].	(c)(49)	Controls fuel volatility in the State. 7.8 psi RVP fuel required in 7 southern counties.
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Note. 1. The regulations are effective statewide unless stated otherwise in comments section.

[FR Doc. 02–5185 Filed 3–5–02; 8:45 am]

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DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AG04

Endangered and Threatened Wildlife and Plants; Endangered Status for the Buena Vista Lake Shrew (*Sorex Ornatus Relictus*)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), determine endangered status pursuant to the Endangered Species Act of 1973, as amended (Act), for the Buena Vista Lake shrew (*Sorex ornatus relictus*). This subspecies is endemic to Kern County, California, and is currently known from only four locations. This subspecies is imperiled primarily by habitat loss and modification due to agricultural activities, unnatural 1 hydrological conditions, incompatible water management practices, the possible toxic effects of selenium poisoning, modification or loss of genetic integrity from introgression (hybridization), and the loss of populations caused by random naturally occurring events. This final rule extends the Federal protection and recovery provisions of the Act for the Buena Vista Lake shrew.

DATES: This final rule is effective April 5, 2002.

ADDRESSES: The complete file for this rule is available for public inspection, by appointment, during normal business hours at the Sacramento Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Rm W–2605, Sacramento, CA 95825–1888.

FOR FURTHER INFORMATION CONTACT: Jan Knight, Chris Nagano, or Dwight Harvey, Sacramento Fish and Wildlife Office, at the above address (telephone 916/414–6600; facsimile 916/414–6710).

SUPPLEMENTARY INFORMATION:

Background

The Buena Vista Lake shrew (*Sorex ornatus relictus*) is one of nine subspecies of ornate shrew, eight of which are known to occur in California (Hall 1981; Owen and Hoffmann 1983; Maldonado 1992; Wilson and Reeder 1993; Jesús Maldonado, University of California-Los Angeles, in litt. 2000). Ornate shrews belong to the family Soricidae (long-tailed shrews) in the order Insectivora (Hall 1981; Junge and Hoffmann 1981; Owen and Hoffmann 1983; George 1988; Churchfield 1990). There are 27 species in the genus Sorex, and they are distributed throughout a large portion of North and Central America (Jackson 1928; Repenning 1967; Corbet and Hill 1980; Hall 1981; Churchfield 1990).

Shrews are primarily insectivorous mammals about the size of a mouse. They vary in color from black or brown, to grey, have long pointed snouts, five toes on each foot, tiny bead-like eyes, soft fur, visible external ears, and a scaly, well-developed tail covered with very short hairs (Ingles 1965; Vaughan 1978; Jamerson and Peeters 1988; Churchfield 1990). Shrews are active during the day and night but are rarely seen due to their small size and cryptic behavior. A few species of shrews can enter a daily state of inactivity (torpor) under extreme environmental conditions (Ingles 1965; Churchfield 1990), such as very low ambient temperatures. Shrews do not hibernate.

Grinnell (1932) was the first to describe the Buena Vista Lake shrew. According to Grinnell's description, the Buena Vista Lake shrew's back is predominantly black with a buffy-brown speckling pattern, its sides are more buffy-brown than the upper surface, and its underside is smoke-gray. The tail is faintly bicolor and blackens toward the end. The Buena Vista Lake shrew weighs approximately 4 grams (0.14 ounces) (Kathy Freas, Stanford University, pers. comm., 1994) and has a total length ranging from 98 to 105 millimeters (mm) (3.85 to 4.13 inches (in)) with a tail length of 35 to 39 mm (1.38 to 1.54 in) (Grinnell 1932). The Buena Vista Lake shrew differs from its geographically closest subspecies, the Southern California ornate shrew (*Sorex ornatus* spp. *ornatus*), by having darker, grayish-black coloration, rather than brown. In addition, the Southern California ornate shrew has a slightly larger body size; shorter tail; skull with a shorter, heavier rostrum (snout); and a higher, more angular brain-case in dorsal (top) view (Grinnell 1932).

Shrews have a high rate of metabolism because of their small size (Newman and Rudd 1978; McNab 1991). They lose heat rapidly from the surface of their small bodies, and are continually faced with the problem of getting enough food to maintain their body temperatures, especially in cold conditions (Aitchison 1987; Genoud 1988). Shrews feed indiscriminately on the available larvae and adults of several species of aquatic and terrestrial insects, some of which are detrimental to agricultural crops (Holling 1959; Ingles 1965; Newman 1970; Churchfield 1990). They are also known to consume spiders, centipedes, slugs, snails, and earthworms (Jamerson and Peeters 1988) on a seasonally available basis (Aitchison 1987).

Little is known about the reproduction or longevity of Buena Vista Lake shrews. Shrews, on the average, rarely live more than 12 months, and each generation is largely replaced annually (Rudd 1955b). For Buena Vista Lake shrews, the breeding season begins in February or March, and ends with the onset of the dry season in May or June, or may extend later in the

year, based on habitat quality and availability of water (J. Maldonado, pers. comm., 1998; Paul Collins, Santa Barbara Museum of Natural History, in litt. 2000). It is likely that this subspecies, like other long-tailed shrews, can give birth to two litters of four to six young each per year; the number of litters is usually dependent on how early or late in the year the young are born, and how soon they become sexually active (Rudd 1955b; Owen and Hoffmann 1983).

A taxonomic study of North American shrews noted that what little geographic variation exists in long-tailed shrew subspecies, like the Buena Vista Lake shrew, is measured in their pelage (coat) paleness or darkness; in their size, both external and cranial; in tail length; in general shape of the skull; and in dentition (size of teeth and length of molar tooth row) (Jackson 1928). Long-tailed shrews all have simply colored gray or brown fur without distinct patterns, and the general shape and proportions of skulls are fairly constant, varying little except between widely separated populations (Jackson 1928). However, long-tailed shrew pelage color can vary from fading or rusting due to wear, and the color and length can show pronounced seasonal variation (Ivanter 1994). Although no sexual variation or age variation in pelage color exists, seasonal variation between summer and winter color and hair length varies markedly in long-tailed shrews, with winter fur more grayish but paler in summer (Jackson 1928). In addition, skull size measurements can vary from 5 to 7.5 percent from the average, and this variation is also noted in external measurements of total length, tail length, and hind foot length. Tooth patterns and skull sizes can also show variation within shrew species.

Populations of ornate shrews show a great degree of variation in size and pelage coloration, and some populations exhibit different degrees of melanism (different shades of black caused by environmental exposure) (Rudd 1955a; Hays 1990; Maldonado *et al.* 2001). Therefore, to identify shrew subspecies based solely on pelage color may not always be reliable (Maldonado *et al.* 2001). However, recent studies involving the taxonomic characters of North American shrews have focused on detailed studies of their skull, teeth, chromosomes, allozymes, and gene sequences because other taxonomic characters can be less reliable (George 1986, 1988; Churchfield 1990; Ivanitskaya 1994; Carraway 1990, 1995; Maldonado *et al.* 2001). In a study on cranial morphology measuring skulls and teeth to assess the relationships and patterns of geographic variation of the ornate shrews, Maldonado (in press) concluded that populations of ornate shrews throughout their range showed low levels of morphological divergence. In addition, variation in these skull measurements due to age or sex was shown not to be significant.

Despite their phenotypic uniformity (similar appearance), ornate shrew populations have surprisingly high levels of genetic divergence (separation) which could prove useful for explaining the evolutionary history of their relationships (Maldonado *et al.* 2001). Recent genetic evaluations have been done on the ornate shrew complex (consisting of nine subspecies, seven of which only occur in California, one occurs in California and Baja California and one subspecies only occurs in Baja California) using mitrochondrial deoxyribonucleic acid (DNA) sequencing of the cytochrome b gene and protein allozymes (Maldonado *et al.* 2001). From these data, researchers determined that the ornate shrew complex is geographically structured into three haplotype clades (genetic groups) representing southern, central, and northern localities within California. From this genetic analysis, samples obtained from individual subspecies can be accurately identified within and between these three clades. However, genetic and morphological data on ornate shrews do not show the same level of sensitivity for differentiating individuals to the subspecies level. Using morphological data from the same subspecies, only 50 percent or less of the Buena Vista Lake shrews could be identified to the correct subspecies (Maldonado (in press)). At the subspecific level, Maldonado's (in press) morphological data can be used to distinguish between the three genetic clades but not within them. These results demonstrate the importance of evaluating both morphological and genetic data, when available, to evaluate and identify shrews captured within the range of the Buena Vista Lake shrew.

The Buena Vista Lake shrew formerly occurred in wetlands around Buena Vista Lake, and presumably throughout the Tulare Basin (Grinnell 1932, 1933; Hall 1981; Williams and Kilburn 1984; Williams 1986; Service 1998). The animals were likely distributed throughout the swampy margins of Kern, Buena Vista, Goose, and Tulare Lakes. By the time the first Buena Vista Lake shrews were collected and described, these lakes had already been drained and mostly cultivated with only sparse remnants of the original flora and fauna (Grinnell 1932; Mercer and Morgan 1991; Griggs 1992; Service 1998).

Nearly all of the valley floor in the Tulare Basin is cultivated, and most of the lakes and marshes have been drained and cultivated (Williams 1986; Werschkull *et al.* 1992; Williams and Kilburn 1992; Williams and Harpster 2001). The great expansion and conversion of natural lands and pasture to irrigated orchards, vegetable crops, cotton, and dairies was made possible by large increases in ground water pumping and the Central Valley Project's delivery of northern California water to the San Joaquin Valley (Mercer and Morgan 1991). The Buena Vista Lake shrew is now known from four isolated locations along an approximately 113-kilometer (km) (70-mile (mi)) stretch on the west side of the Tulare Basin. The four locations are the former Kern Lake Preserve (Kern Preserve) on the old Kern Lake bed, the Kern Fan recharge area, Cole Levee Ecological Preserve (Cole Levee), and the Kern National Wildlife Refuge (Kern NWR).

Buena Vista Lake shrews prefer moist habitat that has a diversity of terrestrial and aquatic insect prey (Kirkland 1991; Ma and Talmage 2001). During surveys conducted in 1988 and 1990 on the Kern Preserve, Freas (1990) found that shrews were more abundant in moderately mesic (moister) habitats versus xeric (drier) habitats, with 25 animals being captured in the moister environments and none in the drier habitat. Maldonado (1992) also found shrews at the Kern Preserve to be closely associated with dense, riparian understories that provide food, cover, and moisture. Capture of two Buena Vista Lake shrews at the Kern NWR occurred in a 0.46-hectare (ha) (1.13-acre (ac)) area that contained the most undisturbed moist riparian habitat, with a mature tree overstory, abundant invertebrates, and ground cover totaling about 90–95 percent (Maldonado *et al.,* 1998; J. Maldonado, in litt. 1998).

The mesic, lower elevation range of the Buena Vista Lake shrew is almost completely surrounded by the semiarid, higher elevation range of the Southern California ornate shrew (Hall 1981; J. Madonado, in litt. 1998, in press; Maldonado *et al.* 2001). Grinnell (1932) noted that Southern California ornate shrews occupied the uplands along streamside habitat, and intergraded with the lowland Buena Vista Lake shrews along the lower courses of the streams that enter the Kern-Tulare basin.

Due to the scarcity of Buena Vista Lake shrews, data about their home range size, breeding territory size, and population densities are lacking. Except

for the breeding season, shrews in general are solitary. As juveniles, they establish their home range, which is a small area in which they nest, forage, and explore, and where they remain for most of their life (Churchfield 1990). Accurate estimation of home range size based on mark and recapture techniques requires that a minimal number of recaptures be made (Hawes 1977). This level of data has never been collected for Buena Vista Lake shrews and, therefore, their home range has not been determined. Ingles (1961) was able to calculate an average home range size in a closely related species, the vagrant shrew (*Sorex vagrans*), found in the Sierra Nevada of California. The average home range size was approximately 372 square meters (m^2) (4,000 square feet (ft^2)), with breeding males occupying larger territories than breeding females (Hawes 1977). The distribution, and size, of a shrew's territory varies, and is primarily influenced by the availability of food (Ma and Talmage 2001). In a study on population densities of vagrant shrews in western Washington, Newman (1976) calculated densities of 25.8 shrews/ha (10.1/ac) in the fall and winter, and 50.2 shrews/ha (20.32/ac) at the height of summer.

At the time we published the proposed rule to list the Buena Vista Lake shrew (65 FR 35033, June 1, 2000), the only known extant (still existing) population was located on the Kern Preserve, which is a privately owned property (California Natural Diversity Data Base 1986; Jack Allen, Service, in litt. 2000). This property totals about 34 ha (83 ac) and was presumed, at the time, to support the only surviving population of Buena Vista Lake shrews.

Since the proposed rule was published, staff from the University of California at Los Angeles reported the results of additional surveys for the Buena Vista Lake shrew (J. Maldonado, in litt. 1998; Maldonado *et al.* 1998). Two Buena Vista Lake shrews were trapped on the south side of the Kern NWR in September 1998 (J. Maldonado, in litt. 1998; Maldonado *et al.* 1998). Due to the low amount of morphological variation in ornate shrews as discussed above, and the potential for the introgression with the southern California ornate shrew, genetic analysis of the potential Buena Vista Lake shrew specimens was completed. Tissue samples taken from shrews from the Kern Preserve and the Kern NWR were genetically analyzed and found distinct from other ornate shrew populations from California and Baja California. These specimens were determined to be Buena Vista Lake shrews (Maldonado *et al.* 2001; Jesús Maldonado, Smithsonian National Museum, pers. comm., 2001).

In February and March of 1999, the California State University Stanislaus Foundation's Endangered Species Recovery Program (ESRP) surveyed six locations within the historic range of the subspecies (Williams and Harpster 2001). They reported capturing five shrews at the Kern NWR along levee roads less than 1.2 km (0.5 mi) from the location where shrews were captured in 1998 (ESRP 1999a). In March 1999, ESRP found nine more shrews along the banks of an artificial pond adjacent to the nature center at the Cole Levee, and five more at the Kern County's water recharge area along the Kern Fan (ESRP 1999b; Williams and Harpster 2001). To date, no genetic analysis has been done on these shrews.

Before the 1998 and 1999 surveys, staff of the Kern NWR reported Buena Vista Lake shrews three other times. In 1992, one shrew was found alive under a sprinkler cover, and another was found dead in a manager's residence at the Kern NWR (Morgan Cook, Service, pers. comm., 1995). One additional shrew was found dead in 1994 within the same residence on the Kern NWR. This residence is currently the Kern NWR headquarters and is one of two buildings located on a 4-ha (10-ac) compound surrounded by lawns and trees (J. Allen, pers. comm., 1998). The constant lawn, shrub, and tree watering and the ponds at the Kern NWR headquarters may have been sufficient to maintain a shrew population (Engler 1994). Although genetic analysis of these specimens to determine their subspecific identity was not performed, these reports prompted the surveys for Buena Vista Lake shrews at the Kern NWR.

The seven shrews captured on the south side of the Kern NWR during the 1998 and 1999 surveys were located around a 323-ha (800-ac) marsh with emergent vegetation and an overstory of willows and cottonwoods (Maldonado *et al.,* 1998; J. Maldonado, in litt. 1998; ESRP 1999a). These marsh areas remain moist longer than most other marshes on the Kern NWR (J. Allen, pers. comm., 1998). However, water management practices at the Kern NWR have focused on waterfowl (Service 1986), and riparian habitat has not received adequate water over the years to maintain riparian diversity (Engler 1994; U.S. Bureau of Reclamation (BOR) 2000).

Over the last 20 years, a number of surveys have taken place in other fresh water marshes and moist riparian areas on private and public lands throughout the range of the subspecies and were all unsuccessful in capturing any Buena Vista Lake shrews. These surveys include: The Nature Conservancy's (TNC) Paine Wildflower Preserve and the Voice of America site west of Delano (Clark *et al.* 1982); along the Kern River Parkway in 1987 (Beedy *et al.* 1992); the Tule Elk State Reserve (Maldonado 1992); the Goose Lake Slough area of the Semitropic ground water banking project, Kern Water District, Kern County (Germano and Tabor 1993); Pixley National Wildlife Refuge in Tulare County (Williams and Harpster 2001); Lake Woollomes in Kern County; and Buena Vista Lake Aquatic Recreation area at the northern portion of the former Buena Vista Lake bed, Kern County (ESRP 1999c; Williams and Harpster 2001).

Other remnant patches of wetland and riparian communities within the Tulare Basin have not been surveyed and may support the Buena Vista Lake shrew, including the City of Bakersfield's water recharge area near the terminus of the Kern River at Buena Vista Lake (J. Maldonado, in litt. 1998; Service 1998; Williams and Harpster 2001; Bill Vanherweg, biological consultant, pers. comm., 2001); Goose Lake and Jerry Slough, overflow channels of the Kern River, located 10 miles south of Kern NWR, owned and managed by the Semitropic Water District as a ground water recharge basin (Germano and Tabor 1993); and the privately owned Crighton Ranch, located near the eastern shore of historical Tulare Lake in Tulare County (Williams and Harpster 2001).

Privately owned lands that may support Buena Vista Lake shrews are located around Sand Ridge flood basin, Buena Vista Slough, Goose Lake and Goose Lake Slough, Creighton Ranch, and along the Kern River west of Bakersfield, California (J. Maldonado, in litt. 1998, pers. comm., 1998; Service 1998; Williams and Harpster 2001). The small habitat patches within these areas would not likely support a significant number of animals (J. Maldonado, pers. comm., 1998; B. Vanherweg, pers. comm., 2001). In addition, these areas represent highly disjunct and fragmented habitat that may not be reconnected to other areas containing suitable habitat in the foreseeable future.

Previous Federal Action

We included the Buena Vista Lake shrew as a Category 2 candidate species in the September 18, 1985, Notice of Review (50 FR 37958). Category 2 species were those for which we had information indicating that threatened or endangered status might be warranted, but for which adequate data

on biological vulnerability and threats were not available to support issuance of listing proposals.

We received a petition dated April 18, 1988, from Ms. Doris Dixon of The Interfaith Council for the Protection of Animals and Nature to list the Buena Vista Lake shrew and three other shrew species as endangered species. We determined that the petition presented substantial information that the requested action may be warranted, and announced our finding in the **Federal Register** on December 30, 1988 (53 FR 53030). The Buena Vista Lake shrew remained a Category 2 candidate in the January 6, 1989, Candidate Notice of Review (54 FR 554). In the November 21, 1991, Notice of Review (56 FR 58804), the Buena Vista Lake shrew was elevated to Category 1 status based on new information that we received. Category 1 taxa were those for which we had on file sufficient information on biological vulnerability and threats to support the preparation of a listing proposal. In the February 28, 1996, Notice of Review (61 FR 7596), we discontinued the use of multiple candidate categories and considered the former Category 1 candidates as simply ''candidates'' for listing purposes. The Buena Vista Lake shrew remained a candidate with a listing priority number of 6 based upon our Listing and Recovery Priority Guidelines (48 FR 43096). The subspecies was elevated to a listing priority number of 3 in the Notice of Review (62 FR 49398) on September 19, 1997, and retained this listing priority number in the October 25, 1999, Notice of Review (64 FR 57534), and October 30, 2001, Notice of Review (66 FR 54808).

On June 1, 2000, we published a proposal to list the Buena Vista Lake shrew as endangered (65 FR 35033) and opened a 60-day comment period. On August 14, 2000 (65 FR 49530), we reopened the comment period for an additional 60 days to provide the public another opportunity to comment on the proposed rule. The final rule for the subspecies was delayed because nearly the entire Fiscal Year 2001 Listing Program appropriation had to be committed to listing actions required under court order or settlement agreement, which did not include the Buena Vista Lake shrew, and essential program management activities.

On October 2, 2001, we entered into a consent decree to settle listing litigation with the Center for Biological Diversity, Southern Appalachian Biodiversity Project, Foundation for Global Sustainability, and the California Native Plant Society. This consent decree requires us to make final listing decisions for a number of species we had previously proposed for listing, including the Buena Vista Lake shrew. The consent decree requires us to publish a final listing determination for this subspecies in the **Federal Register** by March 1, 2002 (*Center for Biological Diversity, et al.* v. *Norton,* Civ. No. 01–2063 (JR) (D.D.C.)). This final rule reflects new information concerning distribution, status, and threats to the subspecies since publication of the proposed rule, and is made in accordance with the aforementioned agreement.

Summary of Comments and Recommendations

In the June 1, 2000, proposed rule (65 FR 35033), we requested all interested parties to submit factual reports or information that might contribute to the development of a final listing decision. We contacted appropriate Federal agencies, State agencies, county and city governments, scientists, and other interested parties to request information and comments. We solicited independent review of the proposed rule from five peer reviewers. We published legal notices in the *Bakersfield Californian* on August 23, 2000. The first comment period was open for 60 days and closed on July 31, 2000. We reopened a second comment period on August 14, 2000, for an additional 60 days, closing on October 13, 2000 (65 FR 49530). We did not receive any requests for a public hearing during either comment period.

We received eleven comment letters, including four letters from peer reviewers. Four of the comment letters supported the proposal, one provided neutral comments, and seven were opposed to the proposal. Several commenters provided additional information that, with other clarifications, has been incorporated into the sections titled ''Background'' and ''Summary of Factors'' of this final rule.

Comments of a similar nature or point regarding the proposed rule have been grouped into issues and are discussed below.

Issue 1: Several commenters questioned whether the Buena Vista Lake shrew was a valid subspecies. Another commenter believed that the original description by Grinnell (1932) used ''primitive'' taxonomic standards, such as skin and skull measurements, to originally describe this subspecies, and that more current genetic and biogeographical research is needed before the taxa can be considered valid.

Our Response: In general, we recognize taxonomic determinations that are published in peer-reviewed journals and are accepted by the scientific community. The description of the Buena Vista Lake shrew was published in the University of California Publications in Zoology (Grinnell 1932). Grinnell described the subspecies based on distinguishing morphological characteristics, geographical and habitat distribution, and other taxonomic characteristics. Maldonado (in litt. 2000, in press) stated that the Buena Vista Lake shrew appears to be morphologically divergent from other populations of ornate shrew in California. No papers published in peer-reviewed scientific journals have synonymized the Buena Vista Lake shrew. Based on the most current scientific information, we have concluded the Buena Vista Lake shrew represents a valid subspecies.

Issue 2: Several commenters said that unpublished data was used that was not in the administrative record, and this information was used to make the determination that the Buena Vista Lake shrew was a valid subspecies and therefore appropriate for listing under the Act.

Our Response: The original description of the Buena Vista Lake shrew published by Grinnell (1932) is still the only peer-reviewed, published taxonomic treatment that is scientifically valid. Unpublished data regarding the validity of this subspecies would be considered speculative. Recent unpublished genetic and morphological work done on ornate shrews did not address the taxonomic validity of the Buena Vista Lake shrew as a subspecies of ornate shrew, and no scientific papers pertaining to the taxonomic status of this subspecies were available during the preparation of either the proposed rule or this final rule.

Issue 3: Several commenters said that we failed to use survey information made available that showed the presence of Buena Vista Lake shrews in several locations outside the only reported location at the former Kern Preserve, and this new information constitutes sufficient reason not to make the proposed rule final, or to postpone the final rule until more information can be gathered and assimilated.

Our Response: All survey data received prior to the publication of the proposed rule was evaluated . We received survey reports that indicated that Buena Vista Lake shrews were trapped at other areas outside the known location on the Kern Preserve before publication of the proposed rule, but did not include this information at that time. We felt that, due to the

difficulty in differentiating between subspecies of ornate shrews, and the possibility of introgression by the Southern California ornate shrew, it was necessary to obtain additional genetic information to determine if these new areas supported the Buena Vista Lake shrew subspecies.

Since publication of the proposed rule, we now believe that, based on survey efforts, the Buena Vista Lake shrew occurs in four locations, which are the Kern Preserve, the Kern Fan recharge area, Cole Levee, and the Kern NWR. We also believe that sufficient threats to the subspecies continue throughout its range to warrant listing (see the discussion under Summary of Factors).

Issue 4: Several commenters believe that the administrative record for the proposed rule was incomplete and unavailable for public review.

Our Response: The complete files for the proposed rule have been, and are, available for public inspection, by appointment, during normal business hours at the Sacramento Fish and Wildlife Office (see the **ADDRESSES** section).

At the time the proposed rule was published, we received a Freedom of Information Act request for the administrative record of the proposed rule. During the preparation of these documents, we noticed that an edit had been made to the rule and a citation had been left in that no longer had context. This discrepancy between the references cited in the published rule and the actual citations used to support the statement was corrected in the organization of the administrative record. All citations and references used in the proposed rule were made available in the public record and the correction to the administrative record did not change the results of the analysis in the proposed rule.

Issue 5: One commenter felt that the peer review process should take place during the proposed rule and not for the final rule, and that the proposed rule lacked proper peer review.

Our Response: During the preparation of the proposed rule, we contacted species experts to gather the best scientific and commercial information available. In accordance with our July 1, 1994 (59 FR 34270), Interagency Cooperative Policy on Peer Review, we also requested the expert opinions of five independent specialists regarding the biological and ecological information about the Buena Vista Lake shrew contained in the proposed rule. The peer review process occurred during the public comment period of the proposed rule. Therefore, the scientific community, as well as the public, had an opportunity to review the proposed rule and provide us comments on it. We believe that this process allowed ample time for review and comment. Comments by the public and peer reviewers have been addressed in this final rule.

Issue 6: Several commenters expressed their concern that we did not use the best scientific and commercial information available.

Our Response: We thoroughly reviewed all available scientific and commercial data in preparing the proposed and final rules. We sought and reviewed historic and recent publications and unpublished reports concerning the Buena Vista Lake shrew, as well as literature documenting the decline of natural habitats in the San Joaquin Valley in general. We considered all types of available information in making a listing determination. This includes reliable unpublished reports, historical documentation, and personal communications with experts. The public reviewed our proposed rule, which also was peer-reviewed according to our policy (see ''Peer Review'' section). We used our best professional judgment and based our decision on the best scientific and commercial data available, as required by section 4(b)(1) of the Act.

Issue 7: One commenter said that we failed to comply with the National Environmental Policy Act (NEPA).

Our Response: We need not prepare environmental assessments or environmental impact statements pursuant to the NEPA for reasons outlined in the **Federal Register** on October 25, 1983 (43 FR 49244). Listing decisions are based on biological, not sociological or economic considerations. This view was upheld in the court case *Pacific Legal Foundation* v. *Andrus*, 657 F.2d 829 (1981).

Issue 8: One commenter claimed that the selenium data used in support of the proposed rule is unsupportable and flawed.

Our Response: While we agree that there has never been a strongly documented case of selenium poisoning in a wild population of shrews, the selenium levels measured in the shrew populations found at the Kesterson National Wildlife Refuge (Kesterson) and the Westlands sites in Fresno approach or exceed selenium concentrations that can have chronic deleterious effects on reproduction and other physiological processes in small mammals. In addition, these same populations of shrews at Kesterson have declined dramatically over the past 10 years. While the shrews found at Kesterson are not Buena Vista Lake shrews, we believe because of the elevated levels of selenium found in portions of the ecosystem, and in some wildlife inhabiting the Tulare Basin, selenium poisoning is a potential threat to the Buena Vista Lake shrew.

Issue 9: One commenter felt that if the Buena Vista Lake shrew was listed, then restrictions would follow for chemical applications, water storage and conveyance activities, and general farming and ranching activities.

Our Response: All chemical applications used in regular farming activities are monitored by the California State Board of Pesticide Regulation (Pesticide Board) and are subject to their control. We do advise the Pesticide Board from time to time in regards to the potential harmful effects certain chemicals may have on endangered and threatened species if they are exposed, and make recommendations on how to eliminate or reduce adverse effects to listed species. Water storage and conveyance systems are subject to local control and through contracts with the Federal and State governments through the BOR. Where there is a Federal nexus (activities that are authorized, funded, or carried out by the Federal Government), certain activities involving chemical application, water storage or conveyance, and land conversion may be modified to protect listed species.

Issue 10: One commenter said that we failed to contact or consult with State and local county governments during the development of the proposed rule.

Our Response: During the preparation of the proposed and final rules, we contacted and made available all references and documents to appropriate State and local government agencies through direct contact, mailings, and the publication of a legal notice in a local newspaper. A copy of the proposed rule was sent to the California Department of Fish and Game (CDFG), Kern County, and other local agencies.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), Interagency Cooperative Policy on Peer Review, we solicited the expert opinions of five independent specialists regarding the biological and ecological information about the Buena Vista Lake shrew contained in the proposed rule. The purpose of such review is to ensure that listing decisions are based on scientifically sound data, assumptions, and analysis. We received comments

back from four of the reviewers. All four peer reviewers provided information meant to correct, clarify, or support statements contained in the proposed rule. Three reviewers stated that the proposed rule was an accurate summary of the species biology and status. Two of the reviewers felt that additional surveys should be done in suitable habitat for Buena Vista Lake shrews; one of these reviewers felt that additional surveys and improved management of known populations of the species could eliminate the need to list the species. Two reviewers suggested that surveys done too late to be included into the proposed rule, be included in the final rule discussion. We have included all known survey data into this rule and encourage further surveys be done to better understand the current range of this rare species. Three of the peer reviewers provided additional information on the species life history, genetics, and distribution and one of the four reviewers provided technical corrections on material contained in the sections titled ''Background'' and ''Summary of Factors Affecting the Species.'' We have incorporated their comments, where appropriate, into this final determination.

Summary of Factors Affecting the Species

Section 3 of the Act and regulations (50 CFR part 424) promulgated to implement the listing provisions of the Act set forth the procedures for adding species to the Federal List of Endangered and Threatened Wildlife. After a thorough review and consideration of all information available, we determine that the Buena Vista Lake shrew should be classified as an endangered species. We may determine a species to be endangered or threatened due to one or more of the five factors described in section 4(a)(1) of the Act. These factors, and their application to the Buena Vista Lake shrew (*Sorex ornatus relictus*), are as follows:

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range

The amount of suitable habitat for the Buena Vista Lake shrew has been significantly reduced over time due to the systematic drainage of land and shallow lakes for the purpose of agricultural crop production. As a result, over 95 percent of the riparian vegetation and associated marsh habitat of the southern San Joaquin Valley has been eliminated (TNC 1984 in Service 1986; Werschkull *et al.* 1992). At this time, the Buena Vista Lake shrew is known from only four locations: the Kern Preserve, Cole Levee, the Kern Fan recharge area, and the Kern NWR.

Rapid agricultural, urban, and energy developments since the early 1900s have severely reduced and fragmented native habitats throughout the San Joaquin Valley (Mercer and Morgan 1991). Historically, the former Tulare, Buena Vista, Goose, and Kern Lakes, along with their respective overflow marshes, covered 19 percent of the Tulare Basin in the southern San Joaquin Valley (Werschkull *et al.* 1992). Around the turn of the 20th century, the Tulare Basin had 104,890 ha (259,189 ac) of valley fresh water marsh, 177,005 ha (437,388 ac) of valley mixed-riparian forests, and 105,333 ha (260,283 ac) of valley sink scrub, for a total of 387,229 ha (956,860 ac) of potentially suitable Buena Vista Lake shrew habitat (TNC 1984, cited in Service 1986). By the early 1980s, the combined total had been reduced to 19,019 ha (46,996 ac), less than 5 percent of the original habitat (TNC 1984, cited in Service 1986; Werschkull *et al.* 1992). As of 1995, intensive irrigated agriculture comprised 1,239,961 ha (3,064,000 ac) or about 96 percent of the total lands within the Tulare Basin.

All of the natural plant communities in the Tulare Basin have been affected by the transformation of this area to production of food, fiber, and fuel (Spiegel and Anderson 1992; Griggs *et al.* 1992). As more canals were built, and more water was diverted for irrigation of the floodplains of the major rivers of the southern San Joaquin Valley, less water was available to keep the riparian forests alive, and less water reached the lakes. By the early 1930s, the former Tulare, Buena Vista, Goose, and Kern lakes were virtually dry and open for cultivation (Griggs *et al.* 1992).

Water delivery to maintain the Kern Preserve and support the Buena Vista Lake shrew habitat cannot be assured because the natural water table has been lowered by past and present agricultural practices on and around the Kern Preserve. From the first year TNC leased the property in 1986, until they decided not to renew the lease in 1995, the landowner supplied water to the Kern Preserve only during years of high runoff, at times when excess water was available at the end of the growing season, and after commercial crop needs were met. Without a dependable water supply of approximately 15 to 20 acre-feet (ac-ft) required to maintain the Kern Preserve's wetlands, the continued existence of the Buena Vista Lake shrew at this location is unlikely. If sufficient water is not provided, the Gator Pond on the Kern Preserve, and surrounding mesic habitat that supports this population, could dry out. The lack of a guaranteed water supply was one of the major reasons TNC determined that the habitat on the Kern Preserve could not remain viable and led to TNC's refusal to renew the lease and manage the Kern Preserve (Sabin Phelps, TNC, pers. comm., 1995).

The Kern NWR was established in 1960 on 4,297 ha (10,618 ac) of land surrounded by thousands of acres of agricultural land, and over the years has been managed primarily for waterfowl (Service 1986). The Kern NWR receives some water from the canalized Poso Creek and from purchases from willing sellers via the Goose Lake canal. The availability of adequate amounts of water to meet the needs of all Kern NWR wildlife is not always possible especially in dry years when the water demands of nearby crops are high and a willing seller of water is hard to find. Recently, the BOR has considered the water needs of several National Wildlife Refuges in the San Joaquin Valley and, through contract agreements with local water agencies, has attempted to provide the Kern NWR with a more predictable and stable water supply so that enough water is available to maintain wetland habitat for waterfowl and other wildlife species, including the Buena Vista Lake shrew (BOR 2000).

The Kern NWR has approximately 182 ha (450 ac) of riparian habitat which requires 2.6 to 3.0 ac-ft per acre each month from November until late May or early June (BOR 2000), or approximately 10,000 ac-ft per year. In accordance with the Water Acquisition Program for Central Valley Project Improvement Act (CVPIA) sections 3406(b)(3), (d)(2) and (g), the BOR will be delivering 8,000 ac-ft to the Kern NWR during fiscal year 2002 (Service and BOR 2001). However, according to the draft Biological Assessment and Biological Opinion on Refuge Water Supply Conveyance Facilities, 9,450 ac-ft are needed for riparian habitat (BOR 2000). In addition, 1,800 ha (4,450 ac) of other seasonal wetland habitat that is flooded from fall (October) through July requires 3.1 to 3.5 ac-ft per acre of water for a total of 15,575 ac-ft to meet all riparian/wetland water requirements. Therefore, the amount of water that is expected to be available is not adequate to support full ecosystem function on the entire area of riparian and wetland habitat that supports the Buena Vista Lake shrew on the Kern NWR. Without full deliveries of water to the Kern NWR, the continued existence of the Buena Vista Lake shrew may not be assured.

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes

The subspecies has no known commercial or recreational value.

C. Disease or Predation

Although no cases of disease related to Buena Vista Lake shrews have been documented, the possibility of disease and associated threats exists. The small population size and restricted distribution increases their vulnerability to epidemic diseases. Buena Vista Lake shrews, like most small mammals, are host to numerous internal and external parasites, such as round worms, mites, ticks, and fleas, that may infest individuals and local populations in varying degrees with varying adverse effects (Churchfield 1990; J. Maldonado, pers. comm., 1998). However, the significance of the threat of disease and parasites to the Buena Vista Lake shrew is not known.

Most vertebrate carnivores of the Tulare Basin, such as coyotes (*Canis latrans*), foxes (*Vulpes* spp.), long-tailed weasels (*Mustela frenata*), raccoons (*Procyon lotor*), feral cats (*Felis cattus*), and dogs (*Canis familiaris*), as well as certain avian predators such as hawks, owls, herons, jays, and egrets, are all known predators of small mammals. While many predators find shrews unpalatable because of the distasteful secretion and offensive odor from their flank glands and feces, several of the avian predators, such as barn owls (*Tyto alba*), short eared owls (*Asio flammeus*), long-eared owls (*Asio otus*), and great horned owls (*Bubo virginianus*), have a poor sense of smell and are known to prey on shrews (Ingles 1965; Aitchison 1987; Marti 1992; Holt and Leasure 1993; Marks *et al.* 1994; Houston *et al.* 1998), and probably Buena Vista Lake shrews (J. Maldonado, pers. comm., 1998). The overall impact that predation may have on the number of individuals and densities of Buena Vista Lake shrews remains unknown.

D. The Inadequacy of Existing Regulatory Mechanisms

The primary cause of decline of the Buena Vista Lake shrew is the loss and fragmentation of habitat due to human activities. Federal, State, and local laws have not been adequate in preventing destruction of the limited Buena Vista Lake shrew habitat.

Under section 404 of the Clean Water Act (CWA) (33 U.S.C. 1344 *et seq.*), the U.S. Army Corps of Engineers (Corps) regulates the discharge of fill material into waters of the United States, including wetlands. Section 404 regulations require applicants to obtain a permit for projects that involve the discharge of fill material into waters of the United States, including wetlands. However, many farming activities do not require a permit due to their exemption under the CWA (53 FR 20764; R. Wayland III, Environmental Protection Agency (EPA), in litt. 1996). Projects that are subject to regulation may qualify for authorization to place fill material into headwaters and isolated waters, including wetlands, under several nationwide permits. The use of nationwide permits by an applicant or project proponent is normally authorized with minimal environmental review by the Corps. No activity that is likely to jeopardize the continued existence of a threatened or endangered species, or that is likely to destroy or adversely modify designated critical habitat of such species, is authorized under any nationwide permit. An individual permit may be required by the Corps if a project otherwise qualifying under a nationwide permit would have greater than minimal adverse environmental impacts.

Recent court cases may further limit the Corps' ability to utilize the CWA to regulate the fill or discharge of fill or dredged material into the aquatic environment within the current range of the shrew (*Solid Waste Agency of Northern Cook County* v. *U.S. Army Corps of Engineers,* 531 U.S. 159 (2001) (SWANCC)). The effect of SWANCC on the Federal ability to regulate activities on wetlands in the area of the Buena Vista Lake shrew has not been determined by the Corps, but these wetlands could be determined to be ''isolated'' and, therefore, not subject to the CWA because these wetlands do not currently drain to a navigable water of the United States, or may otherwise be shown to have little connection to interstate commerce.

In addition, common activities such as ditching within aquatic habitats in the area may not be subject to the CWA provided such activities do not deposit more than minimal ''fallback'' into the aquatic environment. The Corps typically confines its evaluation of impacts only to those areas under its jurisdiction (i.e., wetlands and other waters of the United States).

The California Environmental Quality Act (CEQA) (Public Resources Code § 21000–21177) requires a full disclosure of the potential environmental impacts of proposed projects. The public agency with primary authority or jurisdiction over a project is designated as the lead agency and is responsible for conducting a review of the project and consulting with the other agencies concerned with the resources affected by the project. Section 15065 of the CEQA Guidelines, as amended, requires a finding of significance if a project has the potential to ''reduce the number or restrict the range of a rare or endangered plant or animal.'' Once significant effects are identified, the lead agency has the option of requiring mitigation for effects through changes in the project or to decide that overriding considerations make mitigation infeasible (CEQA § 21002). In the latter case, projects may be approved that cause significant environmental damage, such as destruction of listed endangered species and/or their habitat. Protection of listed species through CEQA is, therefore, dependent upon the discretion of the agency involved. However, the Buena Vista Lake shrew is not listed as an endangered, threatened, or candidate species under the California Endangered Species Act.

E. Other Natural or Manmade Factors Affecting Its Continued Existence

If shrew population ranges overlap or come in contact through expansion, then hybridization may occur in closely related species and certain subspecies (Rudd 1955a). Over time, a population of a subspecies could become genetically indistinguishable from a larger population of an introgressing subspecies such that the true genotype of the lesser subspecies no longer exists (Lande 1999). Apparent hybrids have been recorded between two subspecies of ornate shrew, the California ornate shrew (*Sorex. ornatus californicus*) and the Suisun Marsh ornate shrew (*S. o. sinuosus*), found on the northern side of the San Pablo and Suisun bays in Solano County, California (Rudd 1955a; Hays 1990). Although there is no documented evidence of hybrids, the possibility exists for introgression between the upland Southern California ornate shrew with the lowland Buena Vista Lake shrew. Unidentified subspecies of the ornate shrew have been captured on recently retired farmland south of Mendota in Fresno County (Williams and Harpster 2001; ESRP and BOR 2001).

Selenium toxicity represents a serious threat to the continued existence and recovery of the Buena Vista Lake shrew, not only at the two known locations at the Kern Preserve and the Kern NWR, but any potential locations throughout the Tulare Basin. The soils on the western side of the San Joaquin Valley have naturally elevated selenium concentrations. Due to extensive agricultural irrigation, selenium has

been leached from the soils and concentrated in the shallow groundwater along the western side of the San Joaquin Valley. Where this shallow groundwater reaches the surface or subsurface, selenium can accumulate in biota (flora and fauna) and result in adverse effects to growth, reproduction, and survival. Elevated concentrations of selenium have caused major wildlife mortalities in places like Kesterson (Moore *et al.* 1989). The EPA's water quality criterion for the protection of aquatic species is currently 5 micrograms/liter (µg/L) but is being reevaluated by that agency (65 FR 31681). The selenium standard to protect wetlands in the grassland area of the San Joaquin Valley is 2 µ/L. Some of the highest selenium levels in the western United States (greater than 1,100 µg/L) have been measured from groundwater within the southern San Joaquin Valley, and greater than 200 µg/L have been measured in drainwater evaporation ponds servicing the agricultural lands immediately surrounding the only known populations of Buena Vista Lake shrews in the Tulare Basin (California Regional Water Quality Control Board (RWQCB) 1996; DWR 1997; Seiler *et al.* 1999).

In addition, the increased supply of imported water and little or no exported drainwater has resulted in the raising of the selenium-contaminated groundwater table on the western side of the San Joaquin Valley and large portions of the Tulare Basin (DWR 1997). Water table levels have been measured at 1.5 to 3 m (5 to 10 ft) beneath the Kern Preserve and Kern NWR, and have moved steadily upwards since 1988 (DWR 1997). Between 1984 and 1989, the selenium concentration in shallow groundwater was measured from wells throughout the Tulare Basin and ranged from less than 5 µg/L to greater than 200 µg/L. The groundwater beneath the Kern NWR ranged between 5 and 50 µg/L selenium and between 50 and 200 µg/L under the Kern Preserve, both well above water quality criteria determined by EPA. Thus, careful surface and groundwater management in these areas is critical to avoid selenium bioaccumulation in fish and wildlife.

As selenium and other dissolved salts move upward with the shallow water table, the surface vegetation can take up selenium with the water via root absorption. The selenium and salts can also reach the surface via a ''wicking'' action through the soil or the groundwater. The selenium can then enter the food chain of the Buena Vista Lake shrew by becoming concentrated in insects that forage on the vegetation or reside in soils that concentrate these salts (Saiki and Lowe 1987; Moore *et al.* 1989). Subsurface drainwater discharged to evaporation ponds or recirculated in reuse and treatment systems can also allow this concentrated selenium to accumulate in biota. Elevated concentrations of selenium in insects have been measured in many potential Buena Vista Lake shrew prey species such as brine flies (Ephydridae), damselflies (Zygoptera), midges (Chironomidae), and other insects collected at 22 agricultural drainage evaporation ponds throughout the Tulare Basin, including ponds a few miles west of the Kern Preserve and along the northern border of the Kern NWR (Moore *et al.* 1989). In 1989, concentrations of selenium in 96 insects from 7 representative ponds in the Tulare Basin ranged from 0.71 to 303.7 µg/gram (g) with a mean of 19.67 µg/g (dry weight). These potential dietary levels of selenium are over six times the level that causes chronic deleterious symptoms in rodents and over 14 times what is considered toxic (see toxicity discussion below).

Current data on the selenium concentrations in potential insect prey from the same seven ponds mentioned above are not available, however, it has been established that tissue concentrations of selenium in field-collected aquatic invertebrates are strongly related to waterborne concentrations of selenium (Birkner 1978; Wilber 1980; Lillebo *et al.* 1988). Comparative selenium water concentrations were measured in 1989 and again in 1996 for these same seven ponds (RWQCB 1996). The mean selenium concentrations in 1996 were within the range of the mean 1989 selenium concentrations in all seven ponds. Therefore, the potential exposure and availability of insects with toxic selenium concentrations remains a threat to the Buena Vista Lake shrew in ponds with similar selenium concentrations.

No cases of widespread selenium poisoning (selenosis) among wild mammals in nature has been documented (Skorupa 1998). However, from the results of intensive research on domestic livestock, researchers discovered that consumption of seleniferous grass or hay containing more than 5 µg/g selenium was the most common cause of chronic selenosis, a potentially fatal disease (O'Toole and Raisbeck 1998; Seiler *et al.* 1999). From comparative studies on the pathology and toxicology of selenium poisoning in small mammals, researchers determined that high levels of selenium in the diet can cause deleterious effects to the hair, nails, liver, blood, heart, nervous system, and reproduction (O'Toole and Raisbeck 1998). The lowest dietary threshold for toxicity in small mammals was 1.4 µg/g (dry weight) and was associated with sublethal effects from lifetime exposure in rats (Eisler 1985). Longevity was reduced at 3 µg/g in the lifetime diet. Olson (1986) reports a minimum dietary exposure associated with reproductive selenosis in rats of 3 µg/g. Female rats fed a selenized diet either died of liver failure or were infertile (O'Toole and Raisbeck 1998). Anemia from hemolysis (rupture of red blood cells) is consistently produced in rats fed more than 15 µg/g dietary selenium (Franke 1934; Halverson *et al.* 1970).

A 666–ha (1,646–ac) experimental site south of Mendota in Fresno County has been monitored to assess the changes over time of restoration efforts, groundwater levels, and selenium concentrations in terrestrial invertebrates and small mammals once irrigation was stopped on the site (ESRP and BOR 2001). In 1999 and 2000, the range of selenium concentration in 34 beetles, crickets, isopods, and spiders ranged from 0.3 µg/g to 5.6 µg/g (dry weight). These invertebrates were found to be bioaccumulating selenium at higher levels on lands actively cultivated than on lands where cultivation (and irrigation) had ceased or natural areas where groundwater was much deeper. The selenium concentrations from the livers and whole bodies of 13 ornate shrews (subspecies unknown) captured on uncultivated lands at the site ranged from 2.0 to 7.8 µg/g (dry weight) for livers and 2.0 to 4.8 µg/g for whole body concentrations. These values are within or slightly above the range of background levels of 1 to 10 µg/g for livers and 1 to 4 µg/g for whole body selenium concentrations of small mammals associated with aquatic habitats (Skorupa 1998); however, they are unlikely to be toxic. Researchers found higher levels of selenium in the shrews than the mice at the site and had expected this finding due to the shrews' insectivorous foraging habits and higher metabolic rates requiring greater food intake per unit of body mass (ESRP and BOR 2001).

Elevated concentrations of selenium caused major wildlife mortalities at Kesterson where selenium bioaccumulated in virtually every biotic compartment in the ecosystem (Moore *et al.* 1989). Consistently, ornate shrews have been the small mammal experiencing the greatest exposures to selenium at Kesterson. Ornate shrews captured around Kesterson in 1984 showed selenium concentrations 3 to 25

times greater than those found for any other small mammal at the same site (Clark 1987). During periodic monitoring from 1984 to 1998, mean annual whole body concentrations of selenium in shrews ranged from 7.5 µg/g to 38 µg/g (Dale Pierce, Service, in litt. 2000). The cumulative trapping results for shrews at Kesterson reveal that the same trapping effort that would have resulted in 100 shrew captures in 1989, would have resulted in only eight shrew captures in 1999. In comparison, while the trapping rates for the highly selenium-exposed insectivorous shrews at Kesterson have crashed since 1989, the trapping rates for the much lesser exposed herbivorous (plant eating) deer mice have remained stable (D. Pierce, in litt. 2000). Whether selenium is the direct cause of the population declines of shrews at Kesterson is complicated by habitat change (filling of low areas) and climate changes (drought in early 1990s), but selenium bioaccumulation to harmful levels by shrews is clearly demonstrated at the site.

An additional potential source of selenium exposure to Buena Vista Lake shrews in the Tulare Basin is from both liquid and solid manure being produced by concentrated animal feeding operations (dairies, beef cattle, swine, and poultry operations). The U.S. Food and Drug Administration (FDA) allows the addition of up to 0.3 µg/g of selenium as a supplementation in livestock feed contrary to their own analysis of the potential effects on the environment (58 FR 47961). It was noted that selenium concentrations in a few sampled dairy cow manure pits had been documented at levels of 63 to 88 µg/L (58 FR 47961). By comparison, EPA's current selenium water quality criterion for the protection of aquatic life is 5 µg/L, and 2 µg/L is recommended for the protection of wetland habitats. Thus, direct contamination of fish and wildlife habitats is clearly a potential hazard. Of equal or greater concern is the issue of selenium loading into the environment via land applications of manure. As FDA stated (58 FR 47968), ''Agricultural soils are highly manipulated oxidized systems that tend to favor formation of selenite and selenate and stimulate microbial activities.'' Much previous research has revealed that selenium in the form of selenate is highly mobile in the environment and is easily transported to aquatic ecosystems where it can rapidly become bioaccumulated to toxic levels (e.g., papers in Frankenberger and Engberg 1998). Thus, Buena Vista Lake shrews and their prey base could be exposed to potentially toxic levels of selenium from the on-farm and off-farm application of manure around the aquatic and moist habitats that support them. Accidental discharges from waste storage ponds during storm events could also release additional selenium into the environment.

The potential of additional exposure to toxic levels of selenium from beef cattle, dairy, swine, and poultry waste production appears to be increasing. Using dairy as an example, the Council for Agricultural Science and Technology (CAST) in 1994 published some vital statistics regarding selenium dynamics of lactating Holstein cows. For a herd receiving feed supplemented with 0.3 µg/g selenium, each cow excreted an average of 6.4 milligrams selenium (in urine and manure) per day (CAST 1994:13). That works out to the equivalent of 1.668 g selenium/year (yr) per animal unit (AU). This comes from a standard assumption that a lactating Holstein cow in a producing dairy operation, within the same geographic region that the Buena Vista Lake shrew occurs in, equals 1.4 AU and there are 365 days in a year. Thus, 100,000 AU would result in about 166,800 g of selenium being introduced into the environment each year. Now consider the number of dairy AU in the Tulare Basin of California. In 2000, Kern County had 65,000 milk cows; Fresno County, over 79,000 milk cows; Kings County had over 120,000 milk cows; and Tulare County had nearly 358,000 milk cows (California Department of Food and Agriculture 2001). Combined, the four counties had over 622,000 milk cows, and at 1.4 AU per milk cow, this equals 870,800 AU. That translates to 1,452,494 g of selenium being introduced into the environment. These dairies are large, with the average size in Kern County of over 1,600 head and 1,100 head in Tulare County. Also, they are not evenly spread across the landscape and are often concentrated around urban centers, processing facilities, or sources of water. The manure is also not evenly distributed across the landscape and is most often used to fertilize the agricultural lands on or adjacent to the dairies. Finally, this does not consider beef cattle, swine, and poultry operations that can also use selenium supplements.

The FDA (58 FR 47961) constructed a model to evaluate the addition of 3.9 g of selenium per hectare via application of chicken manure and calculated that such a scenario would lead to surface runoff from the amended fields that contained 7.8 µg/L of selenium, or 1.56 times EPA's aquatic life criterion. FDA's model did not consider the cumulative effects of repeated annual additions of selenium to the environment, but only looked at the scenario of a one-time land application of manure. This model applied to the Tulare Basin would mean that, to apply the 1.4 million g of selenium (from 870,800 AU) at the same rate used in the FDA model, over 373,121 ha (922,000 ac) of land would be required to safely land-apply dairy manure alone. The Central Valley Regional Water Quality Control Board (RWQCB) recommends that each dairy determine the manure application rates to their land based on nitrogen loading, but offers a basic rule of 5 cows per acre of double-cropped land as a ''reasonable rate'' for manure application (RWQCB 2001). Using 870,800 AU, this would translate to 70,480 ha (174,160 ac) needed in the Tulare Basin. Therefore, application of manure in accordance with the RWQCB's basic rule for nutrient management would likely result in selenium concentrations far in excess of safe levels in runoff. Remaining shrew habitat is at the lowest elevation within the surrounding agricultural region. Thus, it is the area to which runoff will tend to flow unless carefully and actively managed to avoid flooding and human error overflows that would affect Buena Vista Lake shrew habitat.

Additional perspective can be gained from a study of Stewart Lake, Utah (Stephens *et al.* 1992), where it was found that annual loading of only 252 g (8.9 ounces) of selenium (to the 101 surface-hectare (250 surface-acre) lake) was sufficient to cause selenium bioaccumulation in waterfowl eggs of over 20 µg/g (a toxic dose that caused embryo deformities). Thus, with an addition of only 2.5 g of selenium per surface hectare of the lake, severe selenium poisoning of wildlife occurred.

The number of dairy cows and new dairy operations that have been proposed or approved for Kern County has suddenly increased in and around the last remaining habitats of the Buena Vista Lake shrew. Six dairies have approved conditional use permits, and another nine dairies are pending approval, which could increase the number of dairies in Kern County from 37 to 52, and the number of milk cows from 60,000 to 112,500 (Bedell 2000). If these animals are fed supplements that have selenium concentrations of 0.3 µg/g and each cow excretes 6.4 milligrams per day (CAST 1994), or 1.668 g/yr/AU, and if each lactating dairy cow equals 1.4 AU, then 262,710 g (or 263 billion µg) of selenium could potentially enter the Kern County environment each year. This only includes the dairy farms in

Kern County and not the additional dairy herds in Kings and Tulare counties or other animal feeding operations.

Buena Vista Lake shrews are exposed to the wide-scale use of pesticides throughout their range, because they currently exist on small remnant patches of natural habitat in and around the margins of an otherwise agriculturally dominated landscape. Buena Vista Lake shrews could be directly exposed to lethal and sublethal concentrations of pesticides from drift or direct spraying of crops, canals and ditch banks, wetland or riparian edges, and roadsides where shrews might exist. Reduced reproduction in Buena Vista Lake shrews could be directly caused by pesticides through grooming, and secondarily from feeding on contaminated insects (Sheffield and Lochmiller 2001). Buena Vista Lake shrews could also die from starvation by the loss of their prey base (Ma and Talmage 2001; Sheffield and Lochmiller 2001). Exposure to organophosphate and carbamate insecticides can inhibit brain acetylcholinesterase activity leading to alterations in behavior and motor activity. Laboratory experiments have shown that behavioral activities such as rearing, exploring for food, and sniffing can be depressed for up to 6 hours in the common shrew (*Sorex araneus*) from environmental and dietary exposure to sublethal doses of a widely used insecticide called dimethoate (Dell'Omo *et al.* 1999). In their natural habitat, depression in such behavioral and motor activities could make the shrews more vulnerable to predation, and starvation. In addition, shrews may feed heavily on intoxicated arthropods after application of insecticides, and, therefore, ingest higher concentrations of pesticides than would normally be available (Stehn *et al.* 1976; Schauber *et al.* 1997; Sheffield and Lochmiller 2001). Fresno, Kern, and Tulare counties are the three highest users of pesticides in California with 16,773,126 kilograms (kg) (36,978,444 pounds (lb)); 10,985,201 kg (24,218,242 lb); and 7,562,064 kg (16,671,512 lb) of pesticide active ingredients used respectively in 1999 (Pesticide Board 2000).

One of the main reasons the Kern NWR was established was to provide waterfowl wintering habitat in the San Joaquin Valley (Service 1986). A waterfowl hunting program is provided in cooperation with the CDFG. In order to attract large numbers of waterfowl, large areas of the Refuge, including Unit 4A where Buena Vista Lake shrews were found, are flooded each year. Starting in August and September, water is released, and these areas remain flooded until March or April. This allows Buena Vista Lake shrews to exist only on narrow patches of unsubmerged habitat along the levee roads and trails that provide access to thousands of hunters, their dogs, and vehicles yearly (Service 1986). Hunters are also allowed to remain overnight, and their presence could cause disruptions in the behavior of the shrews. Due to their small size and high metabolic rates, shrews have short starvation times, and any disturbance, even for a short period, could prove fatal (Hanski 1994). As mentioned, shrews need to capture and consume between 24 and 48 insects over a 24-hour period, even during the colder winter months when thermoregulatory costs account for a major part of the energy expenses (Genound 1988).

The only known populations of Buena Vista Lake shrews are also vulnerable to environmental risks associated with small, restricted populations. Impacts to populations that can lead to extinction include the loss or alteration of essential elements for breeding, feeding, and sheltering; the introduction of limiting factors into the environment such as poison or predators; and catastrophic random changes or environmental perturbations, such as floods, droughts, or disease (Gilpin and Soule 1986). Many extinctions are the result of a severe reduction of population size by some deterministic event such as lowered birth rates due to exposure to certain toxins such as selenium, followed by a random natural event such as a crash in insect populations from an extended drought which causes the extirpation of the species. The smaller a population is, the greater its vulnerability to such perturbations (Terbough and Winter 1980; Gilpin and Soule 1986; Shaffer 1987). The elements of risk that are amplified in very small populations include: (1) The impact of high death rates or low birth rates; (2) the effects of genetic drift (random fluctuations in gene frequencies) and inbreeding; and (3) deterioration in environmental quality (Gilpin and Soulé 1986; Lande 1999). When the number of individuals in a population of a species or subspecies is sufficiently low, the effects of inbreeding may result in the expression of deleterious genes in the population (Gilpin 1987). Deleterious genes reduce individual fitness in various ways, most typically by decreasing survivorship of young. Genetic drift in small populations decreases genetic variation due to random changes in gene frequency from one generation to the next. This reduction of variability within a population limits the ability of that population to adapt to environmental changes (Lande 1999).

One scenario where loss of habitat may lead to extinction is when a species is a local endemic (because of its isolation and restricted range) (Gilpin and Soulé 1986). The Buena Vista Lake shrew is a limited local endemic subspecies (Williams and Kilburn 1992) that has never been found to be locally abundant and lives in very restricted areas of marshy wetland habitat (Bradford 1992). Because there are less than 30 known individuals in four populations (on approximately 575 ac) the Buena Vista Lake shrew is extremely vulnerable to natural or human-caused environmental impacts.

Conclusion

In developing this rule, we have carefully assessed the best scientific and commercial information available regarding the past, present, and future threats facing this subspecies. The Buena Vista Lake shrew is imperiled primarily by agricultural activities, modifications and potential impacts to local hydrology, uncertainty of water availability and delivery to support riparian and marsh habitat, possible toxic effects from selenium poisoning, and by random, naturally occurring events. Only four isolated populations are known to exist. This subspecies is in danger of extinction ''throughout all or a significant portion of its range'' (section 3(6) of the Act) and, because of the high potential that these threats could result in the extinction of the Buena Vista Lake shrew, the preferred action is to list the subspecies as endangered.

Critical Habitat

Critical habitat is defined in section 3 of the Act as: (i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features (I) essential to the conservation of the species, and (II) that may require special management consideration or protection; and (III) specific areas outside the geographical area occupied by a species at the time it is listed in accordance with the provisions of section 4 of the Act, upon a determination that such areas are essential for the conservation of the species. ''Conservation'' means the use of all methods and procedures needed to bring the species to the point at which listing under the Act is no longer necessary.

Section 4(a)(3) of the Act, as amended, and implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, we designate critical habitat at the time the species is determined to be endangered or threatened. Our regulations (50 CFR 424.12(a)(1) state that the designation of critical habitat is not prudent when one or both of the following situations exist—(1) the species is threatened by taking or other human activity, and identification of critical habitat can be expected to increase the degree of threat to the species, or (2) such designation of critical habitat would not be beneficial to the species.

The primary regulatory effect of critical habitat is the requirement in section 7 of the Act that Federal agencies refrain from taking any action that destroys or adversely modifies critical habitat. While a critical habitat designation for habitat currently occupied by this subspecies would not be likely to change the section 7 consultation outcome because an action that destroys or adversely modifies such critical habitat would also be likely to result in jeopardy to the subspecies, there may be instances where section 7 consultation would be triggered only if critical habitat is designated. Examples could include unoccupied habitat or occupied habitat that may become unoccupied in the future. Designating critical habitat may also produce some educational or informational benefits. Therefore, we find that designation of critical habitat is prudent for the Buena Vista Lake shrew.

However, our budget for listing activities is currently insufficient to allow us to immediately complete all the listing actions required by the Act. Listing the Buena Vista Lake shrew without designation of critical habitat will allow us to concentrate our limited resources on other listing actions that must be addressed, while allowing us to invoke protections needed for the conservation of this subspecies without further delay. This is consistent with section 4(b)(6)(C)(i) of the Act, which states that final listing decisions may be issued without critical habitat designations when it is essential that such determinations be promptly published. We will prepare a critical habitat designation in the future at such time when our available resources and priorities allow.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Act include recognition, recovery actions, requirements for protection, and prohibitions against certain activities. Recognition through listing results in public awareness and conservation actions by Federal, State, and local agencies, private organizations, and individuals. The Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with us.

Federal activities that could occur and impact the Buena Vista Lake shrew include, but are not limited to, stream or river alterations, applicable EPA permits concerning concentrated animal feeding operations, water withdrawal projects, agricultural subsidy and assistance programs, road and bridge construction, Federal loan programs, Federal water deliveries, pesticide registration and use, levee and canal construction or maintenance activities, and fire management activities on Federal land.

We developed a Recovery Plan for Upland Species of the San Joaquin Valley, California (Recovery Plan), on September 30, 1998 (Service 1998). This Recovery Plan includes a recovery strategy for the Buena Vista Lake shrew which includes the general criteria for long-term conservation. The recovery criteria for the subspecies are defined under the following headings: Secure and protect three or more disjunct occupied sites collectively with at least 2,000 ha (4,940 ac) of occupied habitat; have a management plan approved and implemented for recovery areas that include survival of the subspecies as an objective; and monitor the specified recovery areas to demonstrate the continued presence at known occupied sites. In spite of published recovery objectives, habitat of the Buena Vista Lake shrew remains unprotected and the subspecies is vulnerable to numerous threats as discussed.

Although the Recovery Plan delineated reasonable actions that were believed to be required and adequate to recover and protect the species at the time they were written, they are subject to modification as dictated by new findings (Service 1998). The information contained in the proposed rule (65 FR 35033) and this final rule (see Summary of Factors Affecting the Species) may modify the criteria expected to be necessary from those outlined in the Recovery Plan for the long-term conservation of the Buena Vista Lake shrew.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or to attempt any of these), import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any endangered wildlife species. It is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to our agents and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving endangered wildlife under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 and 17.23. For endangered species, such permits are available for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities.

Our policy, published in the **Federal Register** on July 1, 1994 (59 FR 34272), is to identify, to the maximum extent practicable, activities that likely would or would not be contrary to section 9 of the Act. The intent of this policy is to increase public awareness of the effect of this listing on proposed and ongoing activities within the subspecies' range.

With respect to the Buena Vista Lake shrew, based on the best available information, the following actions would not be likely to result in a violation of section 9, provided these

activities are carried out in accordance with existing regulations and permit requirements:

(1) Possession of legally acquired Buena Vista Lake shrews; and

(2) Federally approved projects that involve activities such as discharge of fill material, draining, flooding, ditching, tilling, pond construction, wetland or riparian habitat enhancement or construction, stream channelization or diversion, canal or pipeline construction, alteration of surface or ground water into or out of riparian areas (i.e., due to roads, impoundments, discharge pipes, storm water detention basins, etc.), wildlife habitat restoration, or other such activity when it is conducted in accordance with any reasonable and prudent measures given by us in accordance with section 7 of the Act, or in accordance with a section 10(a)(1)(B) permit.

With respect to the Buena Vista Lake shrew, activities that could potentially result in a violation of section 9 of the Act include, but are not limited to, the following:

(1) Unauthorized killing, injuring, harassing, collecting, trapping, handling, or holding in captivity of Buena Vista Lake shrews;

(2) Unauthorized destruction or alteration of the Buena Vista Lake shrew's habitat through discharge of fill material, draining, flooding, ditching, tilling, pond construction, wetland or riparian habitat enhancement or construction, stream channelization or diversion, canal or pipeline construction, alteration of surface or ground water into or out of riparian areas (i.e., due to roads, impoundments, discharge pipes, storm water detention basins etc.);

(3) Burning, cutting, or mowing of riparian vegetation, repair and maintenance of water and sewer lines, levee or road maintenance, and the spraying of insecticides or herbicides on or in riparian or other supportive habitat if not in accordance with reasonable and prudent measures provided by us in accordance with section 7 of the Act or with conditions of a section 10(a)(1)(A) permit;

(4) Discharge or dumping of toxic chemicals, silt, or other pollutants (sewage, oil, and gasoline) into land supporting the subspecies. This includes any application of terrestrial or aquatic pesticide that results in mortality or injury of Buena Vista Lake shrews, regardless if the pesticide was applied in accordance with the labeling instructions. This includes drift from aerial applications and runoff from surface applications; and

(5) Possessing, selling, transporting, or shipping illegally taken Buena Vista Lake shrews.

Questions regarding whether specific activities risk violating section 9 of the Act should be directed to our Sacramento Fish and Wildlife Office (see **ADDRESSES** section). Requests for copies of the regulations on listed plants and animals, and general inquiries regarding prohibitions and permits may be addressed to the U.S. Fish and Wildlife Service, Ecological Services, Endangered Species Permits, 911 N.E. 11th Avenue, Portland, OR, 97232–4181 (telephone 503/231–2063; facsimile 503/231–6243).

National Environmental Policy Act

We have determined that Environmental Assessments or Environmental Impact Statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to sections 4(a) of the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

Paperwork Reduction Act

This rule does not contain any new collections of information other than those already approved under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.*, and assigned Office of Management and Budget clearance number 1018–0094. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information, unless it displays a currently valid control number. For additional information concerning permits and associated requirements for endangered wildlife species, see 50 CFR 17.22.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

Author

The primary authors of this final rule are the staff of the Sacramento Fish and Wildlife Office (see **ADDRESSES** section) (telephone 916/414–6600).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as follows:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.

2. Amend section 17.11(h) by adding the following, in alphabetical order under Mammals, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
*	*	*	*	*	*		*
Shrew, Buena Vista Lake.	*Sorex ornatus relictus*.	U.S.A. (CA)	Entire	E		NA	NA
*	*	*	*	*	*		*

Dated: February 28, 2002.

Steve Williams,

Director, U.S. Fish and Wildlife Service.

[FR Doc. 02–5274 Filed 3–5–02; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 001005281–0369–02; I.D. 022502C]

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Coastal Migratory Pelagic Resources of the Gulf of Mexico and South Atlantic; Trip Limit Reduction

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Trip limit reduction.

SUMMARY: NMFS reduces the commercial trip limit of Atlantic group Spanish mackerel in or from the exclusive economic zone (EEZ) in the southern zone to 1,500 lb (680 kg) per day. This trip limit reduction is necessary to maximize the socioeconomic benefits of the quota.

DATES: Effective 6 a.m., local time, March 4, 2002, through March 31, 2002, unless changed by further notification in the **Federal Register**.

FOR FURTHER INFORMATION CONTACT: Mark Godcharles, telephone: 727–570–5305, fax: 727–570–5583, e-mail: Mark.Godcharles@noaa.gov.

SUPPLEMENTARY INFORMATION: The fishery for coastal migratory pelagic fish (king mackerel, Spanish mackerel, cero, cobia, little tunny, dolphin, and, in the Gulf of Mexico only, bluefish) is managed under the Fishery Management Plan for the Coastal Migratory Pelagic Resources of the Gulf of Mexico and South Atlantic (FMP). The FMP was prepared by the Gulf of Mexico and South Atlantic Fishery Management Councils (Councils) and is implemented under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by regulations at 50 CFR part 622.

Based on the Councils' recommended total allowable catch and the allocation ratios in the FMP, on August 2, 2000 (65 FR 41015, July 3, 2000), NMFS implemented an annual commercial quota of 3.87 million lb (1.76 million kg) for the Atlantic migratory group of Spanish mackerel. For the southern zone, NMFS specified an adjusted quota of 3.62 million lb (1.64 million kg) calculated to allow continued harvest at a set rate for the remainder of the year in accordance with 50 CFR 622.44(b)(2). In accordance with 50 CFR 622.44 (b)(1)(ii)(C), after 75 percent of the adjusted quota of Atlantic group Spanish mackerel from the southern zone is taken until 100 percent of the adjusted quota is taken, Spanish mackerel in or from the EEZ in the southern zone may be possessed on board or landed from a permitted vessel in amounts not exceeding 1,500 lb (680 kg) per day. The southern zone for Atlantic migratory group Spanish mackerel extends from 30°42′45.6″ N. lat., which is a line directly east from the Georgia/Florida boundary, to 25°20.4′ N. lat., which is a line directly east from the Miami-Dade/Monroe County, FL, boundary.

NMFS has determined that 75 percent of the adjusted quota for Atlantic group Spanish mackerel from the southern zone has been taken. Accordingly, the 1,500-lb (680-kg) per day commercial trip limit applies to Spanish mackerel in or from the EEZ in the southern zone effective 6:00 a.m., local time, March 4, 2002, through March 31, 2002, unless changed by further notification in the **Federal Register**.

Classification

This action responds to the best available information recently obtained from the fishery. The Assistant Administrator for Fisheries, NOAA, finds that the need to immediately implement this action to reduce the trip limit constitutes good cause to waive the requirement to provide prior notice and opportunity for public comment pursuant to the authority set forth at 5 U.S.C. 553 (b)(3)(B), as such procedures would be unnecessary and contrary to the public interest. Similarly, the need to implement these measures in a timely fashion to allow. Any delay in implementing this action would be impractical and contradictory to the Magnuson-Stevens Act, the FMP, and the public interest. NMFS finds for good cause that the implementation of this action cannot be delayed for 30 days. Accordingly, under 5 U.S.C. 553 (d), a delay in the effective date is waived.

This action is taken under 50 CFR 622.44(b)(1)(ii)(C) and is exempt from review under Executive Order 12866.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: March 1, 2002.

Bruce C. Morehead,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 02–5350 Filed 3–1–02; 2:58 pm]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 011218304–1304–01; I.D. 030102A]

Fisheries of the Exclusive Economic Zone Off Alaska; Species in the Rock sole/Flathead sole/''Other flatfish'' Fishery Category by Vessels Using Trawl Gear in Bering Sea and Aleutian Islands Management Area

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Closure.

SUMMARY: NMFS is closing directed fishing for species in the rock sole/flathead sole/''other flatfish'' fishery category by vessels using trawl gear in the Bering Sea and Aleutian Islands management area (BSAI). This action is necessary to prevent exceeding the first seasonal apportionment of the 2002 Pacific halibut bycatch allowance specified for the trawl rock sole/flathead sole/''other flatfish'' fishery category.

DATES: Effective 1200 hrs, Alaska local time (A.l.t.), March 1, 2002, until 1200 hrs, A.l.t., April 1, 2002.

FOR FURTHER INFORMATION CONTACT: Andrew Smoker, 907–586–7228.

SUPPLEMENTARY INFORMATION: NMFS manages the groundfish fishery in the BSAI exclusive economic zone according to the Fishery Management Plan for the Groundfish Fishery of the Bering Sea and Aleutian Islands Area (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

The first seasonal apportionment of the 2002 halibut bycatch allowance specified for the BSAI trawl rock sole/flathead sole/''other flatfish'' fishery category, which is defined at § 679.21(e)(3)(iv)(B)(2), is 448 metric tons (67 FR 956, January 8, 2002).

In accordance with § 679.21(e)(7)(v), the Administrator, Alaska Region,