

Response
attached.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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June 28, 2001

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U.S. Environmental Protection Agency
1445 Ross Ave., Suite 1200
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Subject: EPA's noncompliance in Texas on National Pesticide Consultations

The purpose of this letter is to bring to your attention the concerns of the U.S. Fish and Wildlife Service's (Service) Austin Field Office in regard to the U.S. Environmental Protection Agency's (EPA) implementation of the: a) June 14, 1989 Biological Opinion on the National Pesticide Consultation, and b) the March 2, 1993 Biological Opinion on the Effects of 16 Vertebrate Control Agents on Threatened and Endangered Species. Biological opinions on impacts to Federally-listed species and their habitats from pesticides addressed from earlier consultations with EPA (notably the "cluster" opinions) were essentially superseded by these two biological opinions and will not be addressed by this letter.

The Service has five main concerns in regard to the two biological opinions as they relate to Federally-listed species, their habitats, and designated critical habitats in Texas:

1. EPA is not in compliance with reasonable and prudent alternatives (RPAs) and reasonable and prudent measures (RPMs) in the two biological opinions with respect to listed species in Texas as required by Section 7 of the Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq. (ESA). RPAs and RPMs are nondiscretionary actions that must be implemented by EPA and any applicant to ensure compliance with the ESA. Actions specified by RPAs and RPMs in the biological opinions include (but are not limited to) the following: specific buffer zone sizes for pesticide applications, limitations on pesticide application rates and types of application, prohibition of certain pesticides from occupied habitat, and establishment of a pesticide user education program. EPA has chosen to address these nondiscretionary measures as pesticide use limitations in county pesticide bulletins under its Endangered Species Protection Program as detailed in the notice of proposed program in the *Federal Register* (July 3, 1989, pp. 27894-28008). EPA has also chosen to require only voluntary compliance with county pesticide bulletins by pesticide applicators. The Service believes EPA's efforts to date for implementing RPAs and RPMs in Texas through county pesticide bulletins and through labelling of Section 18 and 24(c) pesticides is inadequate to meet the intent of the Service's biological opinions. To date, approximately 12 bulletins have been developed over the last decade

for Texas which has a total of 254 counties. The existing county bulletins do not address all threatened and endangered species and pesticides associated with an individual county nor do the bulletins provide all pertinent protection measures. The bulletins are not distributed throughout their respective county as promulgated by the 1989 *Federal Register* notice. In addition, coordination does not exist in referring pesticide users to county bulletins from FIFRA labels, i.e., Section 3, Section 18 emergency exemptions, and Section 24(c) local registrations. The Service believes that pesticide labels (including labels for FIFRA Section 18s and 24(c)s) should: a) refer applicators to the county bulletins, b) state that compliance with protection measures in county bulletins is a requirement for pesticide applications, and c) provide protection measures for pesticide applications involving listed species and critical habitat when this information is unavailable in a county bulletin. The Service also believes that EPA must use its regulatory authorities to enforce protection measures in county pesticide bulletins such as performing spot checks of applicators in the field and setting up pesticide monitoring networks for areas with a high potential for pesticide impacts on listed species and/or critical habitat.

2. There is not a comprehensive pesticide consultation for listed species, their habitats, and designated critical habitats in Texas. The Service believes that pesticide use in Texas adversely affects listed species as well as critical habitat since: a) a majority of pesticides used in Texas have had inadequate or no consultation, b) critical habitat has been insufficiently addressed, and c) no current mechanism exists for updating pesticide protection measures for recently listed species, critical habitat, or listed species that previously have undergone consultation. Currently in Texas there are 82 listed species, Federally-designated critical habitat for ten listed species, and over 300 pesticide active ingredients in use. The two aforementioned biological opinions are outdated since they represent consultations for only 19 Texas species and 125 pesticide active ingredients. Incidental take provisions and RPAs in biological opinions apply only to those listed species addressed in the opinions and cannot be used for additional species without concurrence of the Service. A number of the 125 pesticides originally consulted upon in the two biological opinions have had their registration canceled and/or are no longer used. Finally, new information in the spray drift/runoff literature indicates that buffer zones and other protection measures provided in the 1989 Biological Opinion should be revised.
3. The criteria by which a "may affect" determination is made by EPA for pesticide impacts on listed species in Texas during the risk assessment process are not appropriate. It is the Service's understanding that the risk assessment process as currently used by EPA for listed species is stipulated by the 1989 *Federal Register* notice. The risk assessment process relies in part on use of mathematical modeling through a quotient model which has a built-in safety coefficient factor for listed species. Recent information in the scientific literature (e.g., Tebout and Brugger, 1995-see enclosure) indicates that assumptions underlying the quotient model approach do not adequately address interactions of listed species with pesticides. Other articles in the literature (e.g., Schaubert et al. 1994-see enclosure) have shown that use of the quotient model has proven

to be problematical when applied in field experiments. In particular, the quotient model and other mathematical modeling approaches in ecological risk assessment (including probabilistic models) cannot currently account for sublethal effects by pesticides on listed species such as endocrine disruption, abnormal behavioral changes, olfactory interference in anadromous fish spp., etc. Such sublethal effects from pesticide applications "may affect" listed species and therefore constitute harm as part of take as defined in the ESA. Since pesticide protection measures contained in the 1989 Biological Opinion have been based in part on use of the quotient model, the Service believes that: a) the biological opinion must be revised to provide more accurate protection measures for listed species, and b) the current process used by EPA for reaching "may affect" determinations for listed species must be re-evaluated including the role of mathematical models. To limit the uncertainty associated with mathematical modeling in ecological risk assessments, the Service also believes that an interagency memorandum should be instituted by EPA and the Service reflecting the following priorities (in descending order) for pesticide applications involving listed species:

- a) Application of pesticides and their residues must avoid directly or indirectly impacting listed species or their habitat.
 - b) When pesticide applications interface with listed species or their habitat (e.g., species habitat bordering cropland), protection measures such as buffer zones must be required. Applicable protection measures for listed species should be evaluated according to: (1) the best available science, and (2) the relative hazard potential for individual pesticides assuming worst case scenarios.
 - c) When application of a particular pesticide directly involves a listed species or its habitat (e.g., a listed species in cropland or mosquito control areas), an ecological risk assessment must be made before application of the pesticide can be allowed. The assessments must be specific and as accurate for the species and/or habitat as possible and must include indirect effects such as loss of the prey base.
4. There are discrepancies between databases of EPA and the Service on locations of listed species on a county by county basis. It is the Service's understanding that EPA has primarily based its database on the National Heritage program for species. In Texas, this database was substantially underfunded in its early efforts to locate species and reflected efforts by individuals to cover local species of interest rather than provide comprehensive coverage for all species. Many of the records found in the original Texas Heritage program (now operated by the Texas Parks and Wildlife Department on a limited basis) are outdated or unconfirmed. Comparison of EPA's county map of species generated for the recent Endangered Species program meeting in Albuquerque in May, 2001 with that of the Service's database shows significant differences. For example, EPA lists no species in Kendall County of Texas, but the Service database lists black-capped vireo (*Vireo atricapillus*), golden-cheeked warbler (*Dendroica chrysoparia*), and bald eagle (*Haliaeetus leucocephalus*). These differences must be reconciled to adequately provide

Mr Cooke

4

protection for listed species with regulatory processes involving FIFRA or the ESA.

5. Application of pesticides in potential habitat of listed species "may affect" these species without prior determination of whether the species are present. It is the Service's understanding that as standard practice the EPA requires protection measures only in cases where habitat is known to be occupied by listed species and does not require surveys of potential habitat before application of potentially harmful pesticides. This issue came to the attention of the Service two years ago in a FIFRA Section 24(c) action by EPA involving use of the pesticide Arsenal® (active ingredient: imazapyr) for control of saltcedar (*Tamarix spp.*) in the Pecos River watershed of Texas. The Section 24(c) action had the potential for impacting the threatened Pecos sunflower (*Helianthus paradoxus*) by not requiring a survey in potential habitat within the watershed outside of the sunflower's known habitat in a Pecos River tributary. Local populations of listed species in Texas have not been completely documented by the Service or other agencies such as the Texas Parks and Wildlife Department since approximately 95 percent of the land ownership in Texas is private and access is ordinarily restricted. The Service believes that application of pesticides in potential habitat of listed species without appropriately authorized surveys does not comply with RPMs in the 1993 Biological Opinion and exceeds the level of take anticipated by both biological opinions.

Because of the aforementioned concerns, the Service believes that: a) Reasonable and Prudent Alternatives as well as terms and conditions of incidental take statements in the 1989 Biological Opinion on the National Pesticide Consultation and the 1993 Biological Opinion on the Effects of 16 Vertebrate Control Agents have been insufficiently addressed for Texas, and b) the protective coverage of the ESA's section 7(o)(2) as given to EPA has lapsed for Texas. The Service also believes that actions by EPA in implementing the two biological opinions constitute agency actions that have modified nondiscretionary stipulations in a manner inconsistent with the opinions. Therefore, EPA needs to reinstate consultation with the Service on pesticides involving listed species and critical habitat in Texas. Listed species and critical habitat not currently covered in the two opinions need to be addressed in the reinstated consultation.

We appreciate your attention to this matter. If you have further questions, please call myself or Allen White of my staff at 512-490-0057.

Sincerely,

/s/ David C. Frederick

David C. Frederick
Supervisor

Enclosures

Mr Cooke

5

**cc: Field Supervisor, Arlington ESFO
Field Supervisor, Corpus Christi ESFO
Supervisor, Clear Lake ESFO
Regional Director, Albuquerque**