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Endangered Species Considerations in Pesticide Use Restrictions: Background and Legislation

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA; 7 U.S.C. 136 *et seq.*) requires that pesticides, before being approved for distribution or sale, must be registered by the U.S. Environmental Protection Agency (EPA). Registration approval depends on a finding that the pesticide will not pose "unreasonable adverse effects on the environment" when used in conformance with labeling directions. To avoid unlawful takings of federally listed threatened or endangered species under the Endangered Species Act (ESA; 16 U.S.C. 1531 *et seq.*) from permitted uses of pesticides under FIFRA, EPA must consult with the U.S. Fish and Wildlife Service (FWS) or the U.S. National Marine Fisheries Service (NMFS), depending on the listed species of concern. The purpose of consultation is to determine whether a federal action may jeopardize listed species or adversely modify their critical habitat and, if so, to develop alternative federal actions that would avoid such jeopardy or adverse modification.

Since 1988, several organizations have challenged the adequacy of the consultation process for pesticide registrations and its protectiveness of listed species. Conversely, pesticide manufacturers and applicators have asserted that overly conservative approaches to evaluating risk to listed species by FWS and NMFS leads to pesticide use restrictions that are not adequately supported by scientific and technical information. Currently, EPA, FWS, and NMFS must ensure that the permissible uses of more than 1,100 pesticide active ingredients do not jeopardize over 1,400 listed species or their critical habitats.

Pesticide Registration Process and Endangered Species Consultation

Before EPA registers a pesticide, the agency conducts risk assessments to determine whether "unreasonable adverse effects on the environment" may result from uses to be permitted by the registration. As part of the assessments, EPA determines whether listed species under the ESA might be affected by such uses. Generally, unreasonable risks identified by the agency may be avoided through labeling requirements that specify restrictions on use. For more information on the pesticide registration process under FIFRA, see CRS Report RL31921, *Pesticide Law: A Summary of the Statutes*.

Under ESA Section 7 (16 U.S.C. 1536), if federal actions—or actions of nonfederal parties that require federal approvals, permits, or funding—might adversely affect listed species as determined by FWS or NMFS, the federal agency taking, approving, or funding such actions must complete a *biological assessment* to determine whether formal consultation is necessary. The assessment must be based on "the best scientific and commercial data available." For purposes of pesticide registrations, biological assessments are also referred to as *effects determinations*.

Through consultation with either FWS or NMFS, federal agencies must ensure that their actions are "not likely to jeopardize the continued existence" of any listed species or adversely modify their critical habitats. *Critical habitat* includes the geographic areas occupied by the species at the time of listing and areas outside that geographic area determined by FWS or NMFS as essential for the conservation of the species.

If FWS or NMFS finds that an action (e.g., pesticide registration) would neither jeopardize listed species nor adversely modify critical habitat, the service issues a *biological opinion* that may include a written incidental take statement specifying the terms and conditions under which the federal action may proceed. If FWS or NMFS finds that an action would jeopardize listed species or adversely modify critical habitat, the service must suggest *reasonable and prudent alternatives* that would avoid harm to the species. Regulations that govern the consultation process are codified at 50 C.F.R. Part 402. See CRS Report RL31654, *The Endangered Species Act: A Primer* for more information on the ESA and the consultation process.

Litigation Challenging Adequacy of Endangered Species Consultations for Pesticide Registrations

EPA, FWS, and NMFS implementation of the ESA consultation process for pesticide registrations has been litigated multiple times in federal court. The litigation has resulted in court orders and legal settlements that direct the agencies to take certain actions to comply with the ESA.

In 1988, a federal appeals court ruled that without an incidental take statement prepared by FWS through the consultation process, EPA's registration of the pesticide strychnine constituted unlawful taking under the ESA (Defenders of Wildlife v. EPA, 882 F.2d 1294, 8th Cir., 1988). The decision affirmed the consultation requirement for pesticide registrations.

Subsequent litigation has focused on specific elements of the consultation process. For example, in separate decisions, federal district and appeals courts have directed EPA to conduct effects determinations for various pesticides (e.g., Washington Toxics Coalition v. EPA, 413

F. 3d 1024, 9th Cir., 2005). While EPA conducts effects determinations, the courts have required the agency and pesticide manufacturers to take interim measures that restrict pesticide use (e.g., no-use buffer zones, shelf tags accompanying pesticide product).

In 2004, to streamline the consultation process, FWS and NMFS promulgated "counterpart" regulations that established alternative consultation procedures for EPA actions under FIFRA (50 C.F.R. Part 402, Subpart D). Under the regulations, FWS or NMFS would oversee EPA determinations on jeopardy of listed species or adverse modification of critical habitat with regard to its pesticide regulatory actions. Litigation challenging these counterpart regulations by conservation groups ultimately resulted in a federal district court finding that certain consultation procedures were arbitrary, capricious, and contrary to law (Washington Toxic Coalition v. FWS and NMFS, 457 F. Supp. 2d 1158, W.D. Wash., 2006).

In 2008, NMFS issued a final biological opinion on the reregistration of chlorpyrifos, diazinon, and malathion with respect to several salmon and steelhead species. Several pesticide manufacturers challenged the biological opinion. In 2013, a federal appeals court found the biological opinion to be arbitrary and capricious and ordered it to be vacated (Dow Agrosciences v. NMFS, 707 F. 3d 462, 4th Cir., 2013). NMFS has continued to work on the biological opinion. The status is discussed in "NMFS Actions."

As EPA continues to register pesticides, there continue to be legal challenges on ESA consultation for various pesticide registrations (e.g., Natural Resources Defense Council v. EPA, No. 17-cv-02034, D.D.C.).

Agency Actions in Response to Litigation

EPA continues to issue listed species effects determinations for different pesticides that are submitted to FWS or NMFS for consultation under ESA Section 7. In January 2018, EPA, FWS, and NMFS signed a memorandum of agreement to establish an interagency working group with other relevant federal agencies to recommend ways to improve consultations. However, various settlement agreements are guiding FWS and NMFS actions.

FWS Actions

In 2014, as part of a legal settlement, FWS agreed to prepare nationwide biological opinions on the registration of five pesticide active ingredients—carbaryl, chlorpyrifos, diazinon, malathion, and methomyl—within certain time frames (Center for Biological Diversity v. FWS, No. 11-cv-05108-JSW, N.D. Cal., Dkt. 87, 2014). Although FWS expected to issue a biological opinion on the registration of chlorpyrifos, diazinon, and malathion by December 2017, to date, it has not been issued. FWS expects to issue final biological opinions on carbaryl and methomyl by December 2018.

In a separate legal settlement, FWS agreed to prepare nationwide biological opinions on the registration review of four other pesticide active ingredients—atrazine, simazine, propazine, and glyphosate (Center for Biological Diversity v. DOI, No. 15-cv-00658-JCS, N.D. Cal., Dkt. 74, 2016). FWS expects to complete these biological opinions by December 2022.

NMFS Actions

In December 2017, NMFS issued a final biological opinion on the registration of chlorpyrifos, diazinon, and malathion to meet a court-ordered deadline (NW Coalition for Alternatives to Pesticides v. NMFS, No. 07-cv-01791-RSL, W.D. Wash., Dkt. 50, 2014). NMFS had requested an extension from the court to address various technical and methodological issues, but the court denied the request. EPA sought public comment on the biological opinion to decide whether to reinitiate consultation or implement the "reasonable and prudent" measures recommended by NMFS (83 *Federal Register* 12754, March 23, 2018).

H.R. 2 Provisions

In the 115th Congress, H.R. 2, the Agriculture and Nutrition Act of 2018, as reported by the House Committee on Agriculture, would require EPA to make determinations on whether pesticide registrations and other related agency actions are likely to jeopardize federally listed species or alter their critical habitat. H.R. 2 would explicitly not require EPA to consult with FWS or NMFS under ESA Section 7 for such determinations unless requested by the pesticide registrant. However, EPA must request information regarding listed species from FWS and NMFS to assist the agency's determination on jeopardy or adverse modification. Further, H.R. 2 would make EPA's registration of a pesticide without FWS or NMFS consultation not actionable in federal court.

Some opponents of these provisions argue that EPA does not have the expertise to make the required determinations and that the enactment of the provision would result in pesticide registrations that do not adequately protect listed species under the ESA. Further, opponents contend that shielding decisions from litigation could reduce judicial oversight of registration decisions. Some advocates of these provisions contend that the provisions would streamline the registration process and help to avoid ESA-related litigation of pesticide registrations.

Whether the terms and conditions of pesticide registrations would differ based on which federal agency (e.g., EPA, FWS, or NMFS) is selected to assess potential effects on listed species from the permissible use of pesticides depends largely on the process and expertise used to assess relevant scientific information.

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