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CAST Commentary

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State Regulatory Agencies as Conduit for Informing Local Conditions in Federal Pesticide Processes

Introduction

Under the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), initially passed by Congress in 1947, all pesticides distributed and sold in the US must be registered by the U.S. Environmental Protection Agency (US EPA), and all pesticides must have a label clearly stating information about the product and directions for use (Pace University 2023). The span between the EPA's national decision to register a pesticide under FIFRA and local application of a pesticide by an end-user according to label directions requires mandated and/or voluntary participation from various entities including pesticide manufacturers and private industry, federal and state agencies, academia, landowners, land managers, and the public (US EPA 2023a). Pesticide regulatory agencies in each US state and Territory, known as State Lead Agencies (SLAs), play a key role in this process and function as co-regulators with the EPA to ensure successful implementation and enforcement of pesticide labels and applications. The EPA funds cooperative agreements that help SLAs implement the EPA's pesticide program and oversee registration, rules and regulations governing pesticide use, notification or posting requirements prior to application, registering complaints concerning a misapplication, certification and training programs for applicators, and exposure or misuse reporting, investigation, and enforcement of labels at the state level. The responsible SLA varies by state and examples from around the nation are the Alaska Department of Environmental Conservation, California Department of Pesticide Regulation, Florida Department of Agriculture & Consumer Services, Office of Indiana State Chemist, Maine Department of Agriculture, Conservation, & Forestry, New Jersey Department of Environmental Protection, and Washington State Department of Agriculture.[1]

Because SLAs help the EPA implement their pesticide program, SLAs also play a role in implementing pesticide program activities related to the Endangered Species Act (ESA). The ESA, administered by the US Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS); collectively "the Services", requires federal agencies to ensure that any action they authorize, fund, or carry out, does not "adversely impact" any species listed under the ESA ("listed species"), or "destroy or adversely modify" any designated critical habitat (CH). The registration, sale, and distribution of pesticides under FIFRA by the EPA is considered a federal action and is therefore subject to the ESA (US EPA 2023b). The EPA initiated the first pesticide consultation with the FWS concerning the active ingredient, toxaphene, on October 17, 1977 and resulted in a Biological Opinion (BO) from FWS on July

[1] The National Pesticide Information Center (NPIC) provides information on each state pesticide regulatory agency on their website: http://npic.orst.edu/reg/state_agencies.html#map

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11, 1978. In 1988, the EPA established the Endangered Species Protection Program (ESPP) to meet its obligations under the ESA. The original ESPP was not an enforceable program but relied on cooperation between the EPA, FWS, states, tribes, and pesticide users. In December 2002, the EPA published for public comment its proposed approach to field implementation of the ESPP and then published its final approach on November 2, 2005, making field implementation of the ESPP an enforceable program under FIFRA (US EPA 2005). The goal of the EPA's ESPP is to carry out the EPA's responsibilities under FIFRA in compliance with the ESA, without placing unnecessary burden on agriculture and other pesticide users. When the EPA determines that an adverse impact to listed species or their designated CH is anticipated, the EPA may change the terms of the pesticide registration which can include geographically specific pesticide use limitations, reflected in Endangered Species Protection Bulletins in the EPA's Bulletins Live! Two (BLT) system.Bulletins Live! Two—View the Bulletins | US EPA[2] Endangered Species Protection Bulletins identify areas of concern and pesticide active ingredients that may affect listed species or designated CH. Bulletins also provide a description of the protection measures necessary for protection and maps showing the geographic area(s) associated with the protection measures.

The evaluation of a pesticide's potential to adversely impact listed species or destroy or adversely modify designated CH can be a resource intensive process considering there are over 1,700 species with over 700 CHs designated under the ESA in the US (FWS, 2023). To advance the EPA's compliance with the ESA and improve efficiency when evaluating impacts to listed species and CH, the EPA released an ESA Workplan in April 2022 outlining strategies for incorporating protections for listed species earlier in its FIFRA process (US EPA 2022a). The ESA Workplan was followed by an update that included a menu of mitigation measures, "Interim Ecological Mitigations," to reduce off-site movement of pesticides through spray drift, surface water runoff, and erosion, thereby reducing pesticide exposure to nontarget species, including listed species and CH (US EPA 2022b). Interim Ecological Mitigations are designed to broadly address ecological risks and are to appear on pesticide labels nationally. Where additional protections for listed species are needed, the ESA Workplan Update also includes information on the EPA's BLT system. To expedite the EPA's implementation of the ESA Workplan, the ESA Workplan Update also outlined various strategies to protect listed species, including a Vulnerable Species Pilot Project, mitigations across types of pesticides (herbicides insecticides, rodenticides, fungicides), and regionally specific strategies.[3]

Successful implementation of FIFRA in compliance with the ESA can be better achieved by involving SLAs early in the pesticide program process. Early involvement of SLAs will improve information exchange for federal decisions and better prepare applicators. This paper will explore the areas of SLA responsibilities related to pesticide label implementation and enforcement and provide suggestions towards successful and more efficient implementation of pesticide programs activities related to ESA from the state perspective.

EPA FIFRA Cooperative Agreement Guidance for States, Territories, and Tribes

The SLAs regulating pesticides work cooperatively with the EPA as delegated agencies with equal primacy to implement FIFRA. The EPA's Office of Chemical Safety and Pollution Prevention (OCSPP), Office of Pesticide Programs (OPP), and Office of Enforcement and Compliance Assurance (OECA) issue national guidances (Guidance) for states, territories, and Tribes to implement FIFRA. The Guidance is used by EPA headquarters and the EPA regional offices in negotiating and overseeing cooperative agreements with states, territories, and Indian Tribes (grantees), as authorized under Sections 23(a)(1) and 23(a)(2) of FIFRA.

- The current OCSPP National Program Guidance is for fiscal years (FY) 2023-2024, and the purpose is to set FIFRA program priorities for the nation, EPA regions, and states (US EPA 2022c). The OCSPP Office of Program Support (OPS) also works with EPA Regions, SLAs, and Tribes on the revising and implementing the Guidance. OPS has the responsibility for this Guidance and other pesticide and toxics work related to

[2] More information about EPA's Bulletins Live! Two program can be found at the website: https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins

[3] More information about EPA and the ESA, including links to Updated Workplan, pesticide actions and decisions made by EPA can be found here: .

the regions, states, Tribes, and territories. OCSPP provides funds to support "program activities" for pesticide program development and implementation, including education, outreach, training, technical assistance, and evaluation activities.

- The current OPP FIFRA Cooperative Agreement Guidance is the joint OPP/OECA 2022-2025 FIFRA Cooperative Agreement Guidance for FY 2022-2025 (US EPA 2021). EPA OPP has historically co-authored the guidance with OECA, and the agencies work with the grantees to negotiate and revise the Guidance on a regular and timely basis. This joint Guidance is intended to help coordinate the pesticide program and compliance, and enforcement activities in support of the goals of the National Pesticide Program. Thus, the two sets of activities are interconnected, but may be handled either independently or under a single cooperative agreement.
- The current OECA National Program Guidance is for FY 2023-2024 (US EPA 2022d). OECA's Office of Compliance (OC) and Office of Civil Enforcement (OCE) coordinate closely on enforcement issues and work regularly with OCSPP OPS and OPP to ensure all four offices are providing consistent, coordinated leadership to regions, states, Tribes, and territories. The purpose of this Guidance is to identify pesticide program, and compliance and enforcement program areas that must be addressed in state, Tribe, and territory cooperative agreements and to provide information on work plan generation, reporting and other requirements. OECA provides funds to support "compliance and enforcement activities," which include compliance assistance, compliance monitoring, case development, and enforcement.

Pesticide Program Requirements

SLAs work to maintain overall pesticide programs. This includes implementation, compliance assistance, and enforcement to ensure a viable pesticide regulatory and enforcement program, achieve environmental results, and maximize success with the SLA and EPA performance measures. SLAs perform required work related to the goals of OCSPP and OECA by maintaining complete administration and management of the pesticide programs and perform fiscal and reporting requirements associated with the cooperative agreement (US EPA 2021). SLAs are required to build or maintain qualified and trained staff and management expertise on pesticide program issues and enforcement, and respond to pesticide inquiries, concerns, tips, and complaints from the public.

The basic pesticide program includes required program areas such as enforcement, certification and training, applicator and worker safety, worker protection, water quality, container containment, and soil fumigation (US EPA, 2021). SLAs also provide outreach, communication, and training as appropriate because of new and emerging issues, rules, regulations, and pesticide registration and registration review decisions. SLAs implement all basic programs following EPA procedures while using EPA guidance documents.

Enforcement and Inspection

Generally, the EPA has deferred the authority to enforce FIFRA requirements to the states. However, the EPA is authorized by Section 27 to rescind a state's primary enforcement responsibility if it is not being adequately carried out (Yen and Esworthy 2012). Different sections of FIFRA authorize officials from the EPA and state agencies to inspect pesticide storage and distribution facilities, issue orders to stop sales, supplies of products, assess civil and criminal penalties for violations of FIFRA, and order indemnity payments to end users, distributors, and dealers of pesticides when registrations are suspended and canceled. Additionally, under FIFRA, states have broad authority to regulate pesticides; however, it is unlawful for states to impose or continue in effect any requirements for labeling or packaging in addition to or different from those required under FIFRA (US EPA 2021). Historically, the EPA has not assessed civil penalties against Federal agencies for violations of FIFRA. As a matter of practice, given the current state of the law, EPA does not intend to pursue such penalties.

SLAs work to provide outreach and compliance assistance and maintain all the standard types of inspections while utilizing a priority setting plan for inspections and investigations, addressing grantee and EPA-identified priorities, and responding to emerging and emergency investigations and enforcement. SLAs are expected to maintain adequate pesticide laws, rules, and associated implementation procedures such as maintaining and following a Quality Management Plan (QMP) for the overall pesticide enforcement programs and any environmental monitoring and data collection and

laboratory work (US EPA 2021). SLAs must also maintain and follow Quality Assurance Project Plan(s) (QAPPs) for pesticide sample collection and analysis, including access to adequate laboratory support capacity through internal or external laboratory services.

SLAs must maintain and follow an enforcement response policy to develop and issue enforcement actions. Inspection and enforcement activities include reporting information on all known or suspected pesticide incidents involving pollinators to OPP and reporting other serious and unique incidents such as spills, drinking water standard exceedances, human health emergencies, and significant water quality and endangered species incidents to the Regional Office project officer (US EPA 2021). Program inspection numbers are tracked, and reports are produced on inspection and enforcement accomplishments. SLAs are obligated to develop and maintain a searchable inspection and investigation database where all enforcement and inspection history and cases can be tracked and are available for enforcement, reporting to EPA, and available to public and legal requests (US EPA 2021). SLAs work to ensure inspector training and must maintain the ability for one or more state staff to obtain and maintain an EPA inspector credentials. Specific inspections and cases can be conducted under EPA credentials and those cases are referred to the Regional Office for enforcement consideration according to a mutually identified referral priority scheme as defined and agreed to in writing (US EPA 2021). SLAs work to assist EPA, upon request, in enforcing regulatory actions and monitoring Section 18 Emergency Exemptions, Section 24(c) Special Local Needs, and Section 5 Experimental Use Permits (US EPA 2021).

Water Quality and Pesticide Programs

SLAs are required to implement water quality and pesticides program work to ensure that pesticides do not adversely affect the nation's water resources (US EPA 2021). The work entails conducting water quality testing and/or evaluating existing and other data from other state, local and federal partners. SLAs are required to share existing data and provide EPA with access to water quality monitoring data either collected, referenced, or discovered by the grantee, that is not available via a readily and publicly accessible website. SLAs work to identify and develop a list of Pesticides of Interest (POI) and Pesticides of Concern (POC) for each program. The processes include coordination within state and cooperating agencies and within each Regional Office. SLAs work to assess and manage pesticides which have a potential to threaten local resources, as well as pesticides that may have water quality concerns in multiple regions. SLAs work to determine whether human health or environmental reference points are likely to be approached or exceeded (US EPA 2021). Pesticides that are approaching or exceeding reference points may be considered POCs and education and management actions are required. SLAs work to actively manage POCs beyond the label to reduce or prevent further contamination of local water resources. SLAs work to train and educate applicators for water quality protection and monitor compliance. SLAs also respond to pesticide water contamination events especially where water quality standards or other reference points are threatened (US EPA 2021).

Pesticide Certification and Training

While pesticide applicators are ultimately responsible for following and complying with pesticide labels, SLAs are responsible for providing pesticide program activities related to outreach, communication, training, and technical assistance to help ensure that pesticide labels are understood and followed by pesticide applicators. SLAs are responsible for establishing Certification and Training (C&T) programs to provide initial licensing and continued recertification for a variety of pesticide applicator types including restricted use (RUP), commercial, dealers, aerial, consultants, structural pest inspectors, and numerous other categories and types. The SLA establishes C&T requirements through laws and rules to comply with EPA and FIFRA requirements. On January 4, 2017, the EPA published its final rule concerning C&T revisions to the 1974 regulations concerning the certification of applicators of RUPs (US EPA 2017). The final rule was intended to ensure federal certification program standards adequately protect applicators, the public, and the environment from risks associated with the use of RUPs. The goal of the final rule was to improve the competency of certified applicators of RUPs, increase protection for noncertified applicators using RUPs

under the direct supervision of a certified applicator through enhanced pesticide safety training and standards, and establish a minimum age requirement for certified and noncertified applicators using RUPs under the direct supervision of a certified applicator. All SLAs completed revisions to C&T plans to comply with the EPA's final rule and all SLA and Tribal C&T plans were approved by each EPA Regional Administrator and EPA OPP at headquarters by the November 4, 2023 deadline. C&T requirements and programs are highly coordinated and regulated because the different license types are foundations for performing legal applications and to sell, distribute, or consult on the use of pesticides in each state.

SLAs work with various partners including the Pesticide Safety Education Program (PSEP) that are located at the cooperative university extension, industry groups, and EPA to implement C&T plans.[4] The SLA pesticide licensing programs include many license types, category exams, study manuals and materials, and a variety of educational products. The SLA works with the PSEP staff to develop comprehensive training, certification, and recertification products and processes.

Pesticide Program Activities Related to ESA

Although ESA is not new to FIFRA, ESA and protection measures for listed species are not currently a standard or required topic in pesticide certification training. The C&T rules and revisions did not include the details for developing specific requirements and training for ESA Pesticide Programs, BLT, or mitigations related to protecting listed species. Regardless, SLAs are integral to the success of FIFRA implementation in compliance with the ESA for many reasons, including educating and training pesticide users about the ESA, pesticide mitigations required to protect listed species, the use of BLT, evaluating the effectiveness of measures required to protect listed species through inspection and enforcement activities, and other FIFRA/ESA activities.

While there are standard topics that must be covered in pesticide C&T programs, topics covered can also include new and emerging issues, rules, regulations, and pesticide registration decisions.[5] Some pesticide programs include information and training materials on listed species. For example, California Department of Pesticide Regulation's Endangered Species Project includes a search engine providing customized, location-specific measures to protect listed species from pesticides (PRESCRIBE), applicator training materials for listed species identification including field identification cards describing biology and habitat characteristics as illustrated in Figure 1, and videos.[6] However, many state pesticide programs do not include listed species materials in any pesticide program activities.

Compliance and Enforcement Activities Related to ESA Under FIFRA

As discussed above, SLAs have responsibility for handling investigations and the enforcement of pesticide laws and rules at the state level. However, SLAs throughout the nation have not determined how the state regulatory processes will be further developed under EPA's recent ESA Workplan, listed species evaluations, and strategies. There are many compliance and enforcement processes that need to be developed so that SLAs can work towards successful implementation of FIFRA in compliance with the ESA. For example, below is language taken from a current pesticide label (label accepted by EPA on March 29, 2022):

> - **Endangered Species Advisory/Protection Requirements:** This product may have effects on federally listed threatened or endangered species or their critical habitat in some locations. When using this product, you must follow the measures controlling the product use relevant to your location for the protection of Endangered Species. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult http://www.epa.gov/espp/, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the product.

Because this statement is on an enforceable pesticide label, the requirement to obtain and follow measures in a Bulletin is a label provision that would be subject to enforcement under the misuse provisions of FIFRA, where EPA and SLAs with authority are responsible for FIFRA enforcement

[4] A list of Pesticide Safety Education Programs (PSEPs) can be found here: https://www.epa.gov/pesticide-worker-safety/pesticide-safety-education-programs-0

[5] See EPA's website on Certification Standards for Pesticide Applicators located at for more information.

[6] More information about California Department of Pesticide Regulation's Endangered Species Project is located here: .https://www.cdpr.ca.gov/docs/endspec/index.htm

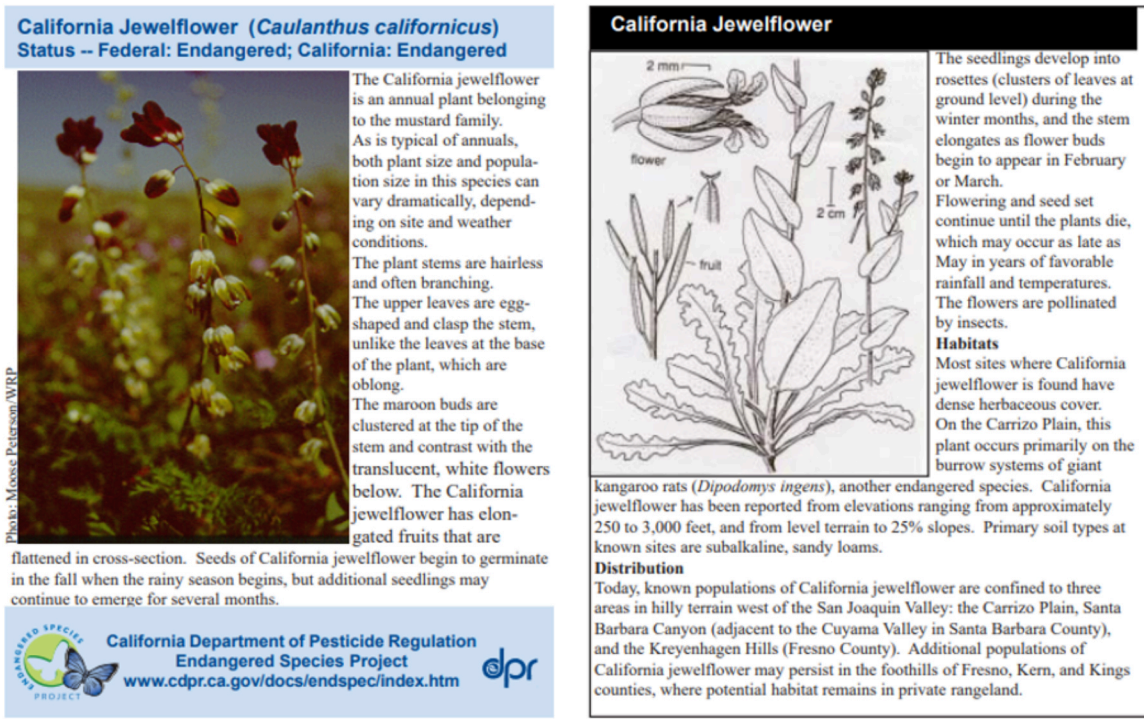

Figure 1. Example Endangered Species Field Identification Card from California's Pesticide Program.

actions. Pesticide applicators are responsible for keeping records for RUPs and it is recommended that similar record requirements be followed for general use pesticides, but these records are not currently required to be inspected by SLAs. The label language above related to "obtain" a Bulletin and "use the Bulletin valid for the month in which you will apply the product" implies that the Bulletin and record of application timing will need to be maintained. Additionally, application details that demonstrate compliance with "following the measures controlling the product use relevant to your location," such as the example measures/pesticide limitations in Figure 2, may also need to be maintained by users. The complexity of some of the pesticide limitations in BLT may present challenges related to documenting compliance.

Pesticide users who fail to follow label provisions for their pesticide application, whether that failure results in harm to a listed species or not, will be subject to enforcement under the misuse provisions of FIFRA. However, if unauthorized take of listed species occurs, the user will be subject to penalties under the ESA, that are enforced by the Services. This will likely require additional training and possibly staff to coordinate with the Services. SLAs have yet to determine how to conduct compliance assistance and enforcement related to EPA's proposed mitigation practices to protect listed species, BLT requirements, record keeping, C&T, monitoring and efficacy evaluations, and overall compliance for ESA protections.

Discussion: Towards Successful Implementation of ESA

SLAs have been engaged with EPA and the Services for years to become informed and provide input to the federal processes. The State FIFRA Issues Research and Evaluation Group (SFIREG) and the SFIREG Joint Working Committee (JWC) also provide science and policy information and comment to EPA. SLAs and SFIREG are engaged in reviewing and providing comments to EPA actions when there is a public opportunity to provide input such as through registration and registration decisions including EPA's biological evaluations (BEs), and the consent decree processes and strategies that EPA has produced in recent years related to

Codes and Limitations Table

Code	Limitation
D120	To protect federally listed threatened and endangered species, both a 310-foot in-field wind-directional spray drift buffer and a 57-foot omnidirectional in-field buffer are required. If applying to dicamba-tolerant soybeans with a qualified hooded sprayer, both a 240-foot in-field wind-directional spray drift buffer and a 57-foot omnidirectional in-field buffer are required to protect federally listed threatened and endangered species. Please see the label for a link to the website(s) with your product's qualified hooded sprayers. The following areas may be included in the buffer distance composition when directly adjacent to the treated field edges: 1. Roads, paved or gravel surfaces, mowed grassy areas adjacent to field, and areas of bare ground from recent plowing or grading that are contiguous with the treated field. 2. Planted agricultural fields containing dicamba-resistant plantings of cotton and soybeans. 3. Areas covered by the footprint of a building, silo, or other man made structure with walls and or roof.
MA15	From April to June, follow one of these measures: 1. Apply malathion only before dawn or after dusk OR 2. Apply malathion only when wind is blowing away from prairie habitats OR 3. Use a 50-foot ground buffer from prairie habitats, and an aerial buffer from the habitats according to application rate: (1) 50 feet for <0.5 lbs ai/A; (2) 75 feet for 0.5 - <1 lb ai/A; (3) 150 feet for 1-2.5 lbs ai/A; (4) 200 feet for >2.5 lbs ai/A. Buffer sizes may be reduced by 25 feet for application rates (1) and (2) if a full swath displacement upwind is used during aerial application. Buffer sizes may be reduced by 50 feet for application rates (3) and (4) if a full swath displacement upwind is used during aerial application. Habitat: Photos are provided at https://www.epa.gov/endangered-species/texas-plants-habitat-photos.

Figure 2. Example Pesticide Limitations in EPA's Bulletins Live! Two

evaluating the impact of pesticides on listed species (including the ESA Workplan Appendix, ESA Workplan Appendix revision, Vulnerable Species Project White Paper, the Draft Herbicide Strategy, and the Draft Rodenticide Strategy). However, SLAs and SFIREG have been left out of the development processes for EPA's new ESA Workplan and strategies and have not been engaged by EPA early in the processes to design and develop measures that can be workable and enforceable.

Early Engagement

SLAs need to be involved in EPA's pesticide and listed species assessment process as early as possible. Specifically, engaging SLAs when EPA is determining the types of mitigations or measures required for a specific pesticide to reduce impacts on listed species will help to ensure that the measures are reasonable and can be implemented by end-users. For example, if a pesticide is used mainly on specialty crops in specific states, engaging the SLAs in those states to discuss the prevalence of certain mitigation measures such as cover crops, vegetative filter strips, and double-cropping will help to inform if it is relevant to include these mitigation measures to reduce impact to listed species. Additionally, review of use limitations and maps by SLAs before implementation in BLT will help to ensure the delineated locations are reflective of on-the-ground conditions and that limitation measures include listed species habitat and other language familiar to pesticide applicators.

Early engagement will also help to ensure that SLAs are prepared for the enforcement needs related to the measures. PSEPs around the nation are struggling to complete new training and study manual revisions to meet new C&T requirements. The EPA proposed changes to BLT and label requirements due to protection of listed species will add a new burden to pesticide C&T and PSEPs because it will require rapid development and deployment of new and likely more complex safety educational, regulatory, and record keeping practices. All of this is proposed to be accomplished without any additional funding from EPA. The EPA will need to involve SLAs and PSEPs to address the many questions so that SLAs and partners can properly develop systems that will ensure that EPA's efforts are successful. For example, if SLAs are aware that there is a requirement for pesticide applicators to "obtain a Bulletin at any time within six months of the day of application" as is proposed in the EPA ESA Workplan Update, then SLAs can be prepared to educate applicators and be prepared to enforce this requirement. Additionally, as the EPA works towards implementing their ESA Workplan and more pesticide decisions and labels include mitigations to protect listed species, it will be increasingly important to educate pesticide applicators about ESA, mitigations required to protect listed species and designated CH, and listed species habitats that may be in or near the vicinity of where pesticide applications will be made. The extra C&T program development for ESA Pesticide Programs will need further development by SLAs and Tribes but having standardized material on ESA as it relates to

pesticides that all SLAs can use when educating applicators, with templates to incorporate more specific materials, is one way to encourage successful implementation of the EPA's pesticide program. Developing a standardized message about ESA as it relates to pesticides and the types of pesticide restrictions, mitigations, and other measures such as Bulletins from BLT, that may be needed to minimize adverse impact on listed species will help to improve applicator's knowledge and awareness. Incorporating state, regional, and locally specific materials when audiences are geographically limited, will provide more relatable circumstances. Examples include descriptions and images of specific listed species that occur in the area, habitat maps and images, and other site-specific information.

State Plans and Programs for Pesticides and ESA

SLAs and SFIREG has provided comment to EPA on various conservation and stewardship programs, how they can be adapted or designed for specific cropping and agricultural systems to be implemented as mitigation for listed species protection, and opportunities to develop mitigation systems and state led conservation programs to fulfill the SLA responsibilities for ESA and FIFRA. SLAs, SFIREG, and partners have also provided comments to EPA that SLAs and states in general should be properly consulted on how these programs and systems work at the state and local level. As an example, EPA's Draft Herbicide Strategy mentions recognized programs which could include those established by federal and state agencies; local, county, or municipal government; university extension programs; or independent certification programs. Growers must maintain documentation of their participation in the program, including recommendations, planning, design, implementation, and maintenance of any conservation practices. To meet Clean Water Act Nonpoint Source Plans, every state and their partners at the local level, such as Conservation Districts, have approved stewardship programs in the form of state and local conversation programs. Additionally, all states also have state conservation and district level authorities and programs to implement technical assistance, cost share, nonpoint source pollution abatement strategies, Best Management Practices (BMPs), and USDA NRCS Field Office Technical Guide Practice Standards.

A proposed solution is for SLAs and SFIREG to work further with EPA to determine and define a recognized conservation or stewardship program exception and how those could be established in each state by SLAs and partners. Guidance would be needed to detail requirements such as the process for plan approval and implementation and plans would need to allow for adaptation of listed species management needs. An example of such an effort is the pilot project with PSEPs and EPA Region 10 staff, exploring how a pesticide system that is protective of listed species could serve the region and the nation.

Formation of an SFIREG ESA and Pesticide Workgroup

Through SLAs and SFIREG comments to the EPA's Draft Herbicide Strategy and SFIREG discussions with the EPA, a request to form and fund a national SFIREG Endangered Species and Pesticide workgroup, involving SFIREG members and representatives nationwide, has been proposed. Formation and financial support for a SFIREG workgroup by the cooperative agreement grant between SFIREG and the EPA is important for properly engaging SLAs and partners throughout the country. The SFIREG Endangered Species and Pesticide workgroup should be composed of SLA representatives throughout all ten EPA regions; along with full SFIREG, JWC, and invited supportive collaborators from other University, Pesticide Safety Educators, and state and conservation group professionals. The EPA funding to SFIREG would support the SLA SFIREG Endangered Species and Pesticide workgroup to implement a science and policy-based process and to also hire contractors to assist in formation, facilitation, and management of the process. SFIREG also suggests the EPA should also properly involve and fund EPA Regional Office Pesticide Program staff to be involved in assisting SLAs and SFIREG in each region and nationwide. Formation of this group is requested before EPA finalizes the various strategies and documents being developed under EPA's ESA Workplan.

With improved interaction opportunities such as early engagement and the formation of an SLA SFIREG Endangered Species and Pesticide workgroup, state regulators can provide much

needed input to inform EPA's ESA pesticide program, listed species assessments, and pesticide mitigation measures in ways that can improve compliance by ensuring that end-user needs are accounted for. Because SLAs interact with pesticide applicators in a regulatory capacity and are involved in education and certification and enforcement, pesticide state agencies are in a unique position to be a conduit for pesticide end-user information into the federal pesticide process. SLAs have a tremendous amount of knowledge about the challenges and issues that pesticide applicators face when it comes to successful implementation of labels. This is vitally important because the agricultural landscape, cropping systems, and pesticide use is highly variable throughout the country. SLAs have knowledge about what works and what does not at the applicator level, and this is key to developing programs that are protective of listed species and that are feasible to implement by local applicators.

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