



# SFIREG

## State FIFRA Issues Research and Evaluation Group

February 14, 2023

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Environmental Protection Agency  
1200 Pennsylvania Ave. NW  
Washington, D.C. 20460-0001

*Submitted electronically via Regulations.gov*

RE: SFIREG Comments: Appendix to the ESA Workplan Update: Proposed Label Language for Public Comment” in docket number EPA-HQ-OPP-2022-0908

Dear Ms. Biscoe;

The State FIFRA Issues Research and Evaluation Group (SFIREG) and its working committees provide a platform for the states and US Environmental Protection Agency (EPA) to resolve challenges for successful implementation of pesticide programs and policies. SFIREG serves as a permanent standing committee of the Association of American Pesticide Control Officials (AAPCO), which works to represent states in the development, implementation, and communication of sound public policies and programs related to the sale, use, transport, and disposal of pesticides. SFIREG and the Joint Working Committee (JWC) are made up of various State Lead Agency (SLA) managers and scientist from around the nation that have responsibilities leading state FIFRA cooperative agreement regulatory programs. SFIREG has been working with EPA in coregulatory processes since 1978.

On behalf of SFIREG and our JWC, we appreciate the opportunity to comment on the topics related to the *Appendix to the ESA Workplan Update: Proposed Label Language for Public Comment” in docket number EPA-HQ-OPP-2022-0908*. Our comment letter provides perspectives related to the concepts and proposed policies located in the appendix to the ESA Workplan Update. There are a variety of items SFIREG has comments, concerns, and suggestions for related to the key items in the appendix and also the ESA Workplan in general. These comments will focus on some of the questions provided and additional perspectives.

## 1. **Bulletins Live! Two (BLT)**

There is general widespread support from SLAs through SFIREG that specific label language referring to BLT is the correct and proper mechanism to notify applicators of changes with products for the protection of Endangered Species. Users and the regulators will need additional training on how to utilize BLT especially as new notices emerge. There can be concerns about the latest utilization of species ranges and boundaries, spatial coverages and the applicability of these areas to pesticide applicator use locations. BLT can be difficult to understand through a computerized mapping tool. Some of the spatial coverages will be tricky to understand and not all applicators and users are able to completely navigate effectively within an online computer application and platform. Improving the mapping tools and the functionality of BLT would be helpful. We suggest platform options for the user to utilize searches by such items as active ingredient, product name, state, county, watershed number, geospatial coordinates, and any other technological search tool that could be utilized. As it currently works, BLT is an inadequate geospatial platform and should be improved. We also recommend some kind of application that could be utilized on mobile devices. Growers, applicators, registrants, and regulators could all utilize an improved system and applications that could be useable on mobile devices.

***Is the label language below on how to obtain Bulletins through BLT clear? Is it easy to understand what actions are required of users, and when?***

As mentioned earlier, BLT could use some upgrades to improve the use and functionality of the product. There are also concerns that the end use product label statements be consistent with what is outlined in the EPA Label Review Manual. There are concerns about the new language related to “unauthorized take” and the regulatory consequences of that kind of language. SLAs typically don’t conduct investigations and regulate to determine “unauthorized take” of a pesticide. Until the spring 2022 labels for Enlist One and Enlist Duo were released, SLAs have been familiar with the regular Endangered Species Label statement from the EPA Label Review Manual. The Enlist type product labels in 2022 were the first labels where we noticed the phrase “take” was utilized. We suggest EPA work with SFIREG further to explain and work through these complex topics and processes.

### **Label Review Manual:**

The Label Review Manual provides this kind of guidance for the endangered species labeling information, refer to Chapter 11, Section IV, subsection J.

- J. Endangered Species Label Statement, page 11-20 to 11-21:
  - If EFED, AD or BPPD has determined that a product requires endangered species labeling, EPA will request that the registrant amend its labeling to place the following statement at the Chapter 11: Directions for Use 11-19 Label Review Manual beginning of the Directions for Use section under the heading “ENDANGERED SPECIES PROTECTION REQUIREMENTS:”

- G “ENDANGERED SPECIES PROTECTION REQUIREMENTS:” “This product may have effects on endangered species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <http://www.epa.gov/espp/> or call 1-800-447-3813. You must use the Bulletin valid for the month in which you will apply the product”.
- This statement is intentionally generic and cannot be altered by staff absent the approval of senior OPP management. No geographically specific endangered species statements can appear on the label in conjunction with this statement, as it specifically references Bulletins. If geographically specific endangered species information appears on the labeling as a means of addressing the risks to listed species, EFED, AD, or BPPD should be notified as appropriate so they may incorporate any such geographically specific information into the referenced Bulletins.
- “ENDANGERED AND THREATENED SPECIES PROTECTION REQUIREMENTS: It is a Federal offense to use any pesticide in a manner that results in an unauthorized “take” (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9

**Examples of Pesticide Product Labels that reference BLT:**

**There was no mention of “Take” in the recent pesticide labels that are referenced in BLT!**

- **Pesticide Product Label, XtendiMax With VaporGrip Technology, October 27 2020**
  - PROTECTING ENDANGERED SPECIES / PESTICIDE USE LIMITATION AREAS The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is a violation of federal law. Use of this product in a manner inconsistent with its labeling may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <https://www.epa.gov/endangered-species/bulletins-live-two-view-bulletins> or call 1-844-447-3813. You must use the Bulletin valid for the month in which you will apply the product. It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species.
- **Pesticide Product Label, Boleror UltraMax 1d Herbicide Label**
  - ENDANGERED SPECIES The National Marine Fisheries Service has determined that thiobencarb, when used in California according to the label and existing restricted materials permit conditions, is not likely to jeopardize the continued existence of endangered or threatened salmonid species, nor is it likely to destroy or adversely modify designated critical habitat of these species. To

ensure and continue the proper use of thiobencarb on rice in California, you must follow the measures contained in the Endangered Species Protection Bulletin for the county in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult <http://www.epa.gov/espp/> or call 1-844-447- 3813. You must use the Bulletin valid for the month in which you will apply the product. The use limitations in the Bulletins and linked Mandatory Pesticide Use Limitations document are adapted from those currently in force for thiobencarb under the restricted materials permit conditions of the California Department of Pesticide Regulation, with enforcement by the County Agricultural Commissioners.

Is it legally necessary for EPA to utilize the phrases that include the use of “take” on a pesticide label and in BLT? Can a legal pesticide application be proven to cause “take”, and who would have that role? We recommend that EPA consider to utilize the regular endangered species label language that is outlined in the Label Review Manual and the type of labeling that has historically been utilized. EPA should work with SFIREG on these topics.

## **2. USDA Natural Resources Conservation Service (NRCS) Practice Standards and Mitigation Measures**

We recommend that EPA make reference to the land management mitigation practices that are from the USDA Natural Resources Conservation Service (NRCS) as an advisable and voluntary options within a recognized Pesticide Stewardship Program and not make them label mandated mitigations. We recommend that EPA reference the actual numbering system for the NRCS type mitigation measures that are suggested and listed in the workplan. NRCS is the federal agency that defines the practice standards in the NRCS Field Office Technical Guide (FOTG) [Field Office Technical Guide | NRCS - USDA](#). Each state has the opportunity to amend practice standards typically through their state conservation commission and make recommendations to each NRCS state conservationist and each NRCS State Technical Advisory Committee (STAC) in each state. In this workplan draft appendix, EPA is utilizing land management mitigations that are really NRCS practice standards from the FOTG, and EPA is also abbreviating or changing the intent and language to fit the workplan. Abbreviated and altered definitions of NRCS practice standards should not be used in EPA regulatory programs. There are concerns this will jeopardize the processes by NRCS and state programs related to properly defining and implementing conservation practice standards, and the trust and work that it takes to gain land owner interest in complex voluntary cost share funding programs.

The FOTG contain the technical guides for each state and field offices to utilize. The FOTG sections contain the necessary information and references for state and field offices technical providers and planners to conduct their work with land owners. EPA should allow NRCS to define the practices and implement the work through the FOTG and cost share programs. For every practice standard the NRCS has very established sections that include: general resource references and manual, natural and cultural resources information, resource concerns and planning criteria, practice standards and supporting documents, and conservation effects. These FOTG practice standards are the scientific mechanisms for NRCS and conservation districts to

work with land owners and producers for the conservation of soil, water, air, and related plant and animal resources. These practice standard systems are the foundational aspects of the FOTG and are applied specifically under cost share programs to support agriculture in managing agricultural and pesticide management for the protection of endangered species.

There are also numerous practice standards that are missing from the appendix. In the appendix, EPA is evidently listing only a few practices as examples. Why not reference the NRCS FOTG and/or list all the practice standards, and by number that exist that could be utilized for cropping systems, tillage, water quality, pesticides, plant materials and plantings, and many other practice standards. There are many other practice standards that could be utilized and those include Pesticide Management Conservation System (595) and Irrigation Water Management (449). When working with landowners in dryland and irrigated land settings, those are two of the more important practices that are often discussed and utilized with landowners. Those two in particular that are extensively utilized when NRCS does cost share work with growers related to pesticides and also for irrigated agriculture. Some states also have emphasized the use of Polyacrylamide (PAM) as an approved FOTG practice, which is the Anionic Polyacrylamide (PAM) (450) standard. The Anionic Polyacrylamide (PAM) (450) standard is commonly utilized in irrigated agriculture and can be utilized in a compatible package with Pesticide Management Conservation System (595), Irrigation Water Management (449), and other practices that involved vegetation, filter strips, and settling basins.

Land owners, growers, and applicators need to be able to work with NRCS and conservation districts to implement these practices and gain technical support and cost share opportunities. When the resource concern is pesticide related, NRCS and conservation districts typically work with land owners to focus on Pesticide Management Conservation System (595) to start with and then utilize the other complementary FOTG practices are added based on the resources needs and the planning process per farm. The work is all based on the resource needs for each farm and the issues that are of focus. Each practice has a number and those are also contained within the NRCS FOTG. NRCS and conservation districts are responsible for working with landowners and farmers on implementing voluntary cost shareable practices from the NRCS FOTG, and the processes to implement these Best Management Practices (BMPs) can take a series of years to implement.

***Does 6 months give stakeholders enough time to plan for planting and other needs?***

The time period of six months is far too short for the time it would realistically take to plan, design, and implement the complex USDA NRCS type mitigation measures that are suggested and listed in the workplan. When NRCS and conservation districts work with landowners and farmers to implement cost shareable practices from the NRCS FOTG, the processes to implement these BMPs can take a series of years to design, plan, and implement. If a farm hasn't already been participating in NRCS programs, and implementing NRCS FOTG Practice Standards, the process will take much longer than six months and six months will not provide enough time for farmers to transform their properties to adopt these types of mitigation systems. Pesticide applicators often are not the landowner also. The conservation districts work through local area working committees to determine conservation priorities and those local working committee recommendations for cost share priorities are then provided to the NRCS State

Conservationist and the STAC for ranking and alignment with the current and upcoming funding programs such as the Environmental Quality Incentives Program (EQIP). EPA attempts to define practices and place them on labels and in BLT will cause a great deal of problems for land owners, conservation districts, and the state NRCS process. NRCS, SLAs and conservation districts are not likely to engage in regulating mitigation practices that have historically been voluntary FOTG practices. The time period of six months doesn't fit the current operational system for farmers, conservation districts, and state NRCS programs for the implementation of technically feasible and socially acceptable practices. The cost analysis, economic impact, an assessment of cost share program availability, and the feasibility for implementation of these practices should be assessed by EPA, USDA, NRCS, and the Office of Management and Budget (OMB). This is serious departure of historical governmental processes for the support of agriculture and landowners across the nation.

In the ESA appendix EPA attempts to define each mitigation measure utilizing a small and select amount of the language from the FOTG Practice Standards. This practice is very much counter to the NRCS processes for utilizing the Practice Standards while working with landowners on conservation planning strategies. A NRCS or Conservation District conservation planner will utilize the entire Practice Standard while working with a landowner. The Practice Standards have a substantial amount of protocols for how they are utilized in planning processes. EPA should leave the processes and definitions intact and allow the NRCS to define and implement these Practice Standards with land owners, growers, and applicators. The NRCS has the experience and expertise with these Practice Standards and implementing the processes with the landowners. We encourage EPA to work with NRCS, states, SLAs, and Conservation Districts to allow those local experts the opportunity to work with growers. The farmers and producers trust the NRCS and Conservation Districts to work with them to protect technical and cost share support. Turning these voluntary practices into regulatory based labeled requirements is a precedent never before attempted by a regulatory agency such as the EPA. This approach is contrary to each state approved Clean Water Act Nonpoint Source (NPS) plan and the voluntary approaches promoted by states and the NRCS. EPA's attempt to change this process will jeopardize the trust farmers have with NRCS and Conservation Districts and will invalidate NRCS programs, the use of Practice Standards. Changing and utilizing incomplete definitions of Practice Standards will make the NRCS as well as the EPA processes subject to challenges and disputes. We suggest that EPA work to create a collaborative effort to fund research groups such as the USDA Agricultural Research Service (ARS), Land Grant Universities, SLAs, and others to further evaluate the use of NRCS FOTG Practice Standards for the effectiveness and efficacy as practices to protect ESA listed species from legal pesticide applications.

Many mitigations have been voluntary to date, but under this new EPA ESA Workplan structure would be mandatory and label driven through BLT. SLAs will have an extremely difficult time enforcing this. There will need to be a phased in approach that relies heavily on education. A programmatic advisory component should be considered, to utilized state and local pesticide stewardship programs, which already exists or is getting developed further in states such as Oregon, Washington, California, and others. These Pesticide Stewardship Programs (PSPs) allow for local groups to be funded to create strategic plans and to enable growers and applicators to take part in programs (NRCS, stewardship, good practices, IPM, education, etc.)

that guide them. A six month period is not believed to be enough time to make educated decisions and decisions. A phased in approach would be beneficial.

Many of the farm BMP and Practice Standard decisions are based on numerous factors and are associated with the nature of voluntary BMP strategies and various items including: the farm operation, farmer decisions, crops, crop rotation, soils, slope, topography, weather, rainfall, irrigation, on-farm conditions, soil health, equipment used, pests, nutrient needs, crop protection and input decisions, ESA species to be protected, and other BMPs or NRCS FOTG Practice Standards that might be utilized. Voluntary BMPs and packages of Practice Standards as BMPs should be a decision by the farmer, landowner, and contributing farm planner from consulting, and/or CD and NRCS staff where decisions are made that fit the farm, crops, soil type, crop, and many other factors. The NRCS FOTG and BMPs chosen should be technically and economically feasible, and acceptable to land owners to implement

We encourage EPA to consider a BMP framework that can allow for voluntary processes and cost share opportunities where these three criteria can be met:

- Technical Feasibility - is based on research findings, field trials and years of practical field experience that demonstrate the BMP’s effectiveness, alone or in combination with other component practices, in reducing the amount of nonpoint source pollution from agricultural activities.
- Economic Feasibility - is based on economic evaluation and practical experience that demonstrate the BMP to be cost-effective in reducing the amount of pollution from agricultural nonpoint source activities.
- Acceptable - practices are those component practices that the responsible party is willing to apply and maintain.

When NRCS and Conservation Districts work with landowners and farmers to implement cost shareable practices from the NRCS FOTG, each state utilizes that national [Field Office Technical Guide | NRCS - USDA](#), and each state works to implement state focused practices such as the Washington State FOTG and all the practices and technical notes listed below can be found here: [Field Office Technical Guide \(usda.gov\)](#).

### **3. SFIREG Comments on the use of the organic carbon partitioning coefficient (Koc) as a Mitigation Screening Tool**

There is considerable concern about EPA including pesticide fate and transport screening science focused on Koc into the workplan without an adequate literature review and analysis of how Koc alone would be utilized to be the basis for requiring these mitigation measures. The EPA is attempting to utilize Koc alone without other pesticide specific fate and transport assessments, where the use of Koc as a trigger point would then require extensive mitigation. Using Koc and referencing a UN FAO classification scheme without referencing additional scientific assessments is not appropriate. Using Koc alone in this workplan scheme for requiring mitigation seems to forgo any of the science reviews and risk assessments that would normally take place on a chemical-by-chemical process as used in registration review and also in BEs and BiOps. As currently proposed, the use of  $Koc < 1000$  for dissolved runoff and  $Koc > 1000$  for

erosion seems to result in that most if not all agricultural pesticides would be required to have mitigation measures. The use of this parameter alone is not effective screening approach to target situations where mitigation would be meaningful and necessary.

There are many chemical, physical, and environmental factors that influence pesticide mobility and transport at the application site, not just Koc alone. A more refined approach that considers additional factors would be more effective and suggestions for refinement are discussed in sections below. Fate and transport as it relates to exposure assessments and risk analysis is normally based on comprehensive assessments and literature reviews and typically include field and experimental studies, testing and trials on organisms, risk assessment, consideration of a variety of chemical and physical parameters, and exposure modeling. This shouldn't be a simplistic approach of one-size-fits-all approach. It's not scientifically appropriate to create surface water runoff screening approach based on Koc alone for a range of different active ingredients. The workplan doesn't contain a comprehensive amount of science and literature review and citations to make the case for using Koc as a sole screening factor. The document is very incomplete for making such a substantial policy suggestion.

### **Additional detail on the Koc-approach summarized in the Proposed Interim Mitigation Measures for Surface Water Protection**

EPA is proposing to include additional mitigation measures to address ecological risks associated with agricultural pesticides that move off-field when they dissolve in surface water runoff or move off site through soil erosion. EPA proposes these measures as interim measures to reduce exposures to various non-target organism while the agency moves forward to full ESA compliance. Final decisions may be more or less stringent based on the outcome of chemical-by-chemical evaluations. In the interim, these mitigation measures will stay on the labels while the agency works toward final registration review decisions.

To develop measures to consistently apply ecological mitigation options associated with transport off the field through runoff and erosion, the agency proposes an approach based on the environmental fate and transport characteristics of the pesticide. The Koc-value of a pesticide is used as the defining criterion for distinction between surface runoff and erosion mitigation measures. The proposed mitigation measures include surface water protection statements and a pick list of conservation measures.

#### **1. Mitigation related to Surface Water Runoff:**

The objective is to address pesticides that are susceptible to dissolve in water and runoff under certain conditions. Pesticides that are highly or moderately mobile (Koc <1000 in ONE soil tested) would require:

- A surface water protection statement “*Do not apply during rain*”.
- Additional label language related to storm events would be required for pesticides that are highly mobile (Koc <100) in ONE soil tested and non-persistent (soil aerobic or foliar half-life of <2 days).



- All agricultural pesticides with Koc <1000 in one soil tested would require users to follow instructions for ONE measure from the pick list of conservation measures.

## 2. Mitigation related to Erosion:

Addresses pesticides that strongly bind to soil and could be susceptible to erosion in certain situations under certain conditions. Pesticides that are classified as slightly mobile, hardly mobile or immobile (Koc >1000 in ALL soils tested) would require:

- A surface water protection statement “*Do not apply during rain*”.
- All agricultural pesticides with Koc >1000 in ALL soils tested would require users to follow instructions for ONE measure from the pick list of conservation measures.

In the ESA Workplan Update Appendix, EPA is requesting feedback on the following:

- Feedback on the proposed label language for surface runoff and erosion.
- Regarding surface water protection statements: are there additional criteria for proposing mitigation that EPA should consider?
- Are pick list items for mitigation described clearly? If not, suggest alternative language.
- Are there other measures that are effective in controlling dissolved runoff that should be included in pick list? Include supporting data with any suggestions.
- Relative to erosion mitigation, should artificial mulches to be considered?

## **Comments from Joint Working Committee Environmental Quality Issues (EQI) Members:**

In general, we view the Koc-approach as too broad and not effective in identifying vulnerable situations for pesticides used on agricultural crops where ecological risk mitigation would be necessary and meaningful. Additional factors that play a role in surface water runoff and erosion would be helpful to refine the approach and identify situations vulnerable situations. In addition, a proper ecological risk assessment of exposure levels associated with runoff and erosion would also assist with identifying situation where mitigation is needed and meaningful.

We believe that attention to these aspects of mitigation measures, as further detailed below, would be helpful to achieve the goal of interim mitigation as described in the ESA Workplan Update November 2022. While it can be recognized that the Agency, as part of a first approach, put forward a relatively simple and broad approach for interim mitigation measures, we believe that a more refined approach will be more effective and likely to be more acceptable for users and other stakeholders.

### Surface Water Protection Statement:

- As currently proposed, most if not all agricultural products that are applied by liquid spray and granular applications<sup>1</sup> to agricultural crops (not in flooded systems), whether

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<sup>1</sup> This should be more consistently identified in the tables in the appendix.

categorized under runoff or erosion mitigation, will require a surface water protection label statement: “Do not apply during rain”.

- Certain pesticides may also require a “storm event” label statement (“not apply when storm event likely to produce a runoff event is forecasted within 48 hours following application”) based on values of Koc of <100 and a soil or foliar half-life value of less than 2 days. This statement is supported by the results of a modeling exercise (USEPA, 2022, Preliminary Analysis of the Effectiveness of a 48-Hour Rain Restriction to Reduce Pesticide Runoff). This modeling exercise provides valuable insights, but apparently further analysis is ongoing. Similar modeling could possibly also be expanded to evaluate a broader approach, including the consideration of factors such as soil and field conditions.
- In the mitigation table the note is, ‘Only include “storm event” bullet when Koc < 100 in one tested soil AND either aerobic metabolism or foliar degradation half-life is <2 days’. It seems that the Agency selected the use of a Koc of 100 over the 1000 as the correct criterion for runoff concerns. Should the “<2” be “>2”, since our concern is mobile pesticides that hang around?
- It seems that there may be very few agricultural pesticides that meet the criteria for a ‘storm event’ label statement.
- It could be suggested that the “storm event” statement should be on all agricultural pesticides regardless of half-lives. The statement “Do not apply during rain” is a waste of label space since it essentially required on all agricultural products. The 2-day half-life criterion seems to be very short and not a proper criterion for defining persistence in the field. It is suggested to raise the half-life to at least 10 days. Any pesticide with a half-life of 2 days or less is of little concern since it will not be around very long. Some programs traditionally consider the persistent line for a pesticide to be 100 days. It is also suggested to change “aerobic metabolism” to “aerobic soil metabolism”. And why are there no rainfast considerations in any of these approaches of using only the chemical parameters to determine runoff problems in the field?
- A broader approach based on additional factors is also consistent with the part of the label statement “a storm event likely to produce a runoff event from the treated area”. This statement seems to refer to site specific aspects and suggests that other factors also need to be considered.

#### Comments Relative to Koc:

- Using Koc alone as determining the need for when a grower has runoff concerns with respect to a pesticide being applied and needs to add soil conservation from a pick list seems to be too narrowly focused on a single factor.
- The 1000 L/Kg for Koc seems very high for a runoff criterion. An alternative approach is the McCall Classification Scheme ([Mobility Classification of Chemicals in Soil](https://chemsafetypro.com) ([chemsafetypro.com](https://chemsafetypro.com))) over the FAO. The FAO classification seems less sensitive for pesticides since it uses a log scale. In the text (page 23) it discusses a Koc of 100 for the mobile and highly mobile FAO categories which is very close to the McCall Classification of 150 for the high and very high categories. Should these be the

categories we are most concerned about and have the largest potential contributing to surface waters? In addition, instead of one Koc to be used as the criteria and it could be considered to use an average or the 90<sup>th</sup> percentile value.

- Koc values can vary substantially, depending on soil type, soil pH, pesticide properties, and the organic matter in soils. Koc is typically low for sandy soils. Therefore, including these statements based on mobility in one soil type only may be too narrow. For example, most water-soluble pesticides will have high mobility in sandy soils and would require these statements.
- Like Koc, half-life can vary substantially depending upon chemical properties, soil type, pH, temperature, sunlight, microorganisms, etc. For example, the half-life of atrazine in Georgia on a soil with a pH of 6.8 was reported to be 39 days, whereas in Minnesota the half-life was 261 days on a soil with a pH of 7.9. It is not clear how these differences will be accounted for when categorizing pesticides based on half-lives. We are not aware of many non-volatile pesticides with a half-life of less than two days, especially in relatively climates. These statements should also consider soil type in addition to Koc and half-life.
- Overall, we view the Koc-approach as being too broad; it does not seem to really narrow it down to and target situations that are truly vulnerable to runoff and erosion and where mitigation measures could be meaningful in lowering ecological risks. As currently proposed, most if not all products (liquid spray and granular applications) to agricultural crops would require a surface water protection statement and the implementation of at least one runoff or erosion conservation measure. The Koc value of a pesticide alone does not seem to be a useful parameter to identify vulnerable situations/scenarios.
- One can envision various situations where runoff or erosion are not expected to be significant, even when Koc values may suggest such potential, because other factors are more important in such situations. For example, soil properties (particularly soil texture), field properties (such as slope), vegetation and agronomic practices are important factors in surface runoff and erosion processes. Considering some or all of these additional factors are helpful to identify situations where runoff and erosion are likely to occur.
- In an effort to achieve a more effective and targeted approach, it is suggested to refine the approach by considering other factors such as slope, soil type, crop residues, cover crops, and other fate and transport factors.
- All these items should be assessed by EPA in these processes and EPA should be using mechanisms for mitigations that are based on sound science and where there is strong and transparent efficacy data and scientific studies, literature, and support.

Ecological risk related:

- Another aspect of the current approach that could be refined is the ecological risk component. The term “ecological risk” used in the tables is vague and seems subjective as a criterion, since all pesticides have risk, and all pesticides have some ecological risk. It is suggested to change the term “ecological risk” to some quantitative parameter like Risk Quotient (RQ) exceedances for surface water creatures like fish, aquatic

invertebrates, aquatic plants, etc. As currently proposed, there is no distinction between high-risk and low-risk pesticides.

- A more quantitative approach would help to better identify situations where runoff or erosion would pose risks of concern. This would be consistent with EPA’s goal of developing Interim Ecological Mitigation that includes specifically the risk aspect.

Comments related to Pick List Mitigation Measures:

- We note that all agricultural products that require a surface water protection statement will also require users to follow instructions for ONE measure from the pick list of conservation measures. Runoff and erosion mitigation pick list measures are essentially the same, except for the minimum width of the vegetative filter strip (30 ft for dissolved runoff vs 20 ft for erosion mitigation).
- The menu-pick list consists of BMPs for soil conservation. Some of these are expensive to install, may take out additional productive land needlessly and now these are going to be required by the law of the label. These practices need further scrutiny by soil conservation professionals. An example would be: Why are you allowing a “Field Border” as a measure to limit runoff and erosion when it is only a few places, downhill, where water and eroded soil leave a field”. The general concepts to add mitigations everywhere, such as buffers or field borders, is unfounded and unnecessary as an umbrella type option. The focus should be on local and landowner management where mitigation options are tailored and utilized for protection of where water is moving and where pesticides could be transported into vulnerable settings and habitats.
- We support the combining of in-field and off-field approaches to limit runoff and erosion from reaching our surface waters. More emphasis should be on concentrating the efforts to the path of the runoff water in the field and on the edge. We like the idea of combining and connecting grassed waterways in the field with buffer strips at the edge and even with riparian areas downhill. These concepts are foundational of NRCS practices that are voluntarily implemented with landowners through cost share programs.
- Sheet flow isn’t necessarily the main mechanism in many agricultural settings and cropping systems, especially during the growing season. Water flows in rills and channels that it creates for the forces involved, and sometimes erosion gets larger with time. All buffer areas will need to be repaired annually, if not more often due to large runoff events that will cut through them. Operations and maintenance is important and costly. Who will enforce this approach and its maintenance? Will there be any effort in making sure the mitigation approaches are effective or just meeting the label requirements of being present?
- We recommend that EPA look at efficacy of these mitigations proposed, the science behind the practices, and how these systems can be assessed for effectiveness over time.
- It is suggested to have the NRCS review and comment on the soil conservation menu items. NRCS has the expertise and history in runoff and erosion and EPA should utilized the NRCS conservation planning processes and leadership. These new mitigation policy strategies should be fully funded by USDA and EPA and not just suddenly adopted by EPA under a brief update to an EPA ESA workplan appendix. These are highly

significant policy changes being proposed and the processes should be properly funded in a similar manner as the USDA climate smart commodity program initiative that has emerged in 2021 and 2022. The USDA has put billions of dollars into these initial programs. It will take that level of work for this priority and the two efforts should be coordinated.

Additional comments on Koc:

- There are no considerations of fields with subsurface tile lines (around 3 ft depth) and low Koc pesticides leaching down into these lines and out into surface waters and evading all in the field and edge of field attempts intercept them. Much of our soil conservation practices are to promote infiltration and to get water to move down into the soil.
- Many pesticide labels have both agricultural and non-agricultural uses on the same label. Therefore, these mitigation measures will not be limited to agricultural use only unless the mitigation measures are listed under the use directions for each crop.
- Half-life values on foliage are not available for many pesticides. It is not clear if EPA would make it a requirement for registration?
- As currently proposed, interim measures will supersede PID, ID, BE, and/or BiOp because EPA proposes these measures as interim measures, which will stay on the labels while the agency works toward final registration review decisions. These measures may stay, go, or change depending on the final decision. However, there is no clear timeline for the interim and final decisions. Furthermore, it is unclear how EPA would communicate interim and final label changes to users. This may create outreach and education issues for the state-lead agencies.

In conclusions, we suggest EPA work to involve SLAs, SFIREG and the JWC to build a comprehensive and workable ESA and pesticide program that would provide for scientific support for mitigation practices that would work for SLAs, NRCS, conservation districts, landowners, growers, applicators, and registrants. We recommend a broader pesticide and ESA team that would involve SLAs, NRCS, USDA Agricultural Research Service (ARS), USDA Office of Pest Management Policy (OPMP), Conservation Districts, agricultural land grant institutions, pesticide safety educators, and others around the country that have experience with agricultural pesticide and other practices for water quality and ESA protection, and the FOTG expertise that could be utilized to assist in developing a workable and an acceptable ESA pesticide framework. We suggest that these efforts by EPA and USDA be fully funded, similar to other recent USDA programs such as the climate smart commodity work, where states, landowners and pesticide users can be supported for this important work. We suggest involving SLAs, agricultural producers, commodity groups, and other agricultural groups around the nation. AAPCO also has a new Pesticide and ESA Workgroup that has been formed to assist in facilitating these types of engagement opportunities for sound regulatory and scientific system processes.

SFIREG and SLAs are focused on providing science based information and consistent regulations for EPA, the public, stakeholders, and industry. We thank EPA for the opportunity to comment and to express our concerns on this issue.

We look forward to working with EPA on these important science and regulatory processes. Thank you for your consideration.

Sincerely,



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