U.S. ENVIRONMENTAL PROTECTION AGENCY

PESTICIDE PROGRAM DIALOGUE COMMITTEE MEETING

Wednesday, November 15, 2023

9:30 a.m.

DAY 1

PESTICIDE PROGRAM DIALOGUE COMMITTEE ROSTER

May 2023

NAME	AFFILIATION
User/Grower Groups/ Farmer Representatives	
Amy Asmus	Weed Science Society of America
Jim Fredericks	National Pest Management Association
Mark Johnson	Golf Course Superintendents Association of America
Patrick Johnson	National Cotton Council
Dominic LaJoie	National Potato Council
Lauren Lurkins	Illinois Farm Bureau
Tim Lust	National Sorghum Producers
Bob Mann	National Association of Landscape Professionals
Gary Prescher	National Corn Growers Association
Caleb Ragland	National Soybean Association
Damon Reabe	National Agricultural Aviation Association
John Wise	IR-4 Project

NAME	AFFILIATION
Environmental/ Public Interest/ Animal Welfare Groups	
Nathan Donley	Center for Biological Diversity
Jessica Ponder	Physicians Committee for Responsible Medicine
David Shaw	Mississippi State University
Alexis Temkin	Environmental Working Group Alternatives to Pesticides
Farmworker Representatives	
Becca Berkey	Community-Engaged Teaching and Research Program, Northeastern University
Lauren Dana	Legal Aid Chicago
Mayra Reiter	Farmworker Justice
Mily Treviño-Sauceda	Alianza Nacional de Campesinas, Inc.
Public Health Representatives	
Joseph Grzywacz	Department of Family and Child Sciences, Florida State University
Aaron Lloyd	Lee County Mosquito Control District

NAME	AFFILIATION
Marc Lame	Indiana University's O'Neill School of Public and Environmental Affairs
Chemical and Biopesticides Industry/Trade Associations	
Manojit Basu	CropLife America
Steven Bennett	Household and Commercial Products Association
Lisa Dreilinger	Reckitt Benckiser
Keith Jones	Biological Products Industry Alliance
Karen Reardon	RISE, Responsible Industry for a Sound Environment
Charlotte Sanson	ADAMA
Anastasia Swearingen	American Chemistry Council
State/Local/Tribal Government	
Jasmine Brown	Tribal Pesticide Program Council
Dawn Gouge	Arizona Experiment Station University of Arizona

NAME	AFFILIATION
Megan Patterson	Maine Department of Agriculture, Conservation and Forestry
Dave Tamayo	County of Sacramento Department of Water Resources
Wendy Sue Wheeler	Pesticide Resources and Education Program, Washington State University
Federal Agencies	
Walter Alarcon	National Institute for Occupational Safety and Health Centers for Disease Control and Prevention
Cameron Douglass	Office of Pest Management Policy, US Department of Agriculture
Charlotte Liang	Division of Plant Products and Beverages, US Food and Drug Administration
Ed Messina (Chair)	Office of Pesticide Programs Environmental Protection Agency

NAME	AFFILIATION
Cathy Tortorici	Endangered Species Act Interagency Cooperation Division National Oceanic and Atmospheric Agency

P R O C E E D I N G S

DAY ONE - MAY 31, 2023

MEETING OPENING

JEFFREY CHANG: Good morning. Welcome to members of the public who are here in person and those who have joined virtually, Federal Advisory Committee members, workgroup members, EPA, and other agency staff.

Please note that we also have press joining us. Welcome.

This is Day 1 of the November 2023 Pesticide Program Dialogue Committee meeting. My name is Jeffrey Chang, Designated Federal Official for the PPDC and moderator for the next two days.

This is our first ever public hybrid meeting where some members of the PPDC are joining virtually. Members of the public are also able to view this meeting through the Zoom link that was posted on our website.

If technical issues do arise, please bear with us. If you have any technical questions, please email Michelle Arling at Arling.Michelle@EPA.gov. That's A-R-L-I-N-G.M-I-C-H-E-L-L-E @EPA.gov, or call Michelle at (202)566-1260.

Accommodations, ASL and CART and

translation services are available virtually and in the room.

In just a moment, I'll pass over to EPA Director of the Office of Pesticide Programs and Chair of the PPDC, Ed Messina, to officially open the meeting. But before I do that, I want to go over some quick housekeeping items as we get started today, starting with online instructions.

I want to draw your attention to the interpretation on the bottom panel of your Zoom window to the right of your screen.

Regardless...

(Spanish interpreter speaking.)

JEFFREY CHANG: Regardless of your preferred language, you need to click on the button and select either English or Spanish and mute original audio to be able to fully participate in the meeting. This will place you in either the Spanish or English channel and as we anticipate a bilingual meeting today, it is important that you choose one of these channels.

For our Spanish-speaking colleagues, I will now turn it over to our interpreter, who will provide these instructions in Spanish in the main channel.

(Spanish interpreter speaking.)

JEFFREY CHANG: Closed captioning and live transcription is available to those who use the service by clicking the closed captioning button in the bottom panel of your Zoom screen.

We also have an ASL interpreter today and a CART provider. These services can also be accessed through the interpretation button used to select Spanish translation.

The following instructions are for those who are attending the meeting in person. Translation services can be requested in the back of the room. Headsets are available for those who need them. There is an ASL interpreter on the screen. Headsets are available for those who are hard of hearing. Please see Michelle.

If you’re a member of the public, unless you indicated interest in providing oral comments when you registered for today’s public meeting, you will be in listening mode for the duration of the event. If you did not pre-register for comment, you may still email Michelle Arling or use the raise hand feature once we come to the public period at the end of the day and we will do our best to recognize you during the public comment sessions on

each day of the meeting, after we recognize those who signed up to make public comments in advance.

Virtual PPDC and workgroup chairs are designated as panelists in Zoom, meaning that they can request to be recognized during the discussion session by using the raise hand function and can unmute themselves and activate their webcams after being called upon. It is very important that you remain muted with your webcam off unless you are recognized to speak.

Today's meeting is being recorded for the purpose of having meeting transcripts produced. We ask that all presenters speak slowly and clearly to ensure that everyone can understand and participate fully in the meeting. Conversations should take place orally. The chat function should be used only to contact the meeting host.

Here is some conference center information. Restrooms are in the back of the conference center. There's a water-filling station in the pantry; also near the restrooms. Please don't leave the conference room without an EPA escort. The Great Lakes Room is available for you to step out and make a call and the Boston Room is available for PPDC members only.

With that, I will now give it over to Ed Messina to officiate the official welcome.

WELCOME

ED MESSINA: Thanks, Jeffrey. Can folks hear me okay with this?

All right. Well, thank you, Jeffrey. Jeffrey is our Designated Federal Official for PPDC, and he and Michelle did an amazing job of actually getting all the logistics of having people here. I think it's unfair to call us a hybrid meeting. I'm going to call us a mostly in-person meeting and bang the gavel on that. And thanks to everyone attending in person, making the trip -- I know many of you came far away -- and thanks for the folks who are online as well and we're hoping to make your experience a good one.

I think it's only fitting that we're in the Ruckelshaus Conference Center. Ruckelshaus was the first EPA administrator and he outlined sort of our three main priorities for EPA. And he said, we have to follow the law, we have to follow the science, and we have to be transparent when we're doing it.

And I think today is a great statement about transparency. We have members from, you know,

various organizations, industry, nonprofit organizations, university, and many other associations who represent the broad swath of stakeholders that care about the work that we're doing and we appreciate that you are here to hear about what we've been doing and also have a conversation about what we can do better.

So later on, I'll have a presentation and I'll walk through a little bit of the agenda and some of the presentations we have in store for you. Input from the PPDC members was sought in putting this agenda together. So I would congratulate you guys on a great agenda and look forward to a wonderful meeting.

As Jeffrey has covered, we have a pretty full agenda today and tomorrow. I'm going to talk a little bit about the PPDC and the charter and what we're here to do today, to sort of welcome some new members to the group as well and welcome back some existing members.

So first, let me refresh everyone on what the Pesticide Program Dialogue Committee is chartered to do. So PPDC is a Federal Advisory Committee. It was formed in 1995 under the Federal Advisory Committee Act, or what we refer to as FACA,

which Congress passed in 1972 to create an orderly procedure by which federal agencies can seek collective advice from diverse customers, partners, and stakeholders. FACA establishes procedures for the management of Federal Advisory Committees, ensures transparency of Advisory Committee decision-making, and ensures balanced representation.

PPDC supports the EPA in performing its duties and responsibilities under the Federal Insecticide, Fungicide, and Rodenticide Act, the Federal Food, Drug, and Cosmetic Act, the amendments to both of these, major pesticide statutes by the Food Quality Protection Act of 1996 and the Pesticide Regulatory Improvement Act.

This is directly from the charter, Objective and Scope of Activities. The EPA's Office of Pesticide Programs is entrusted with the important responsibilities of ensuring that Americans are not exposed to unsafe levels of pesticides in foods, protecting Americans from unreasonable risk, educating pesticide applicators and others who may be exposed to pesticides, and protecting the environment, special ecosystems, and wildlife from potential risks to pesticides.

The PPDC is a policy-oriented committee

that will provide policy advice, information and recommendations to the EPA. The PPDC will provide a cooperative public forum to collaboratively discuss a wide variety of pesticide regulatory development and reform initiatives involving public policy and program implementation issues, policy issues associated with evaluating and the reduction of pesticide use. These evolving policy issues may include OPP's work to environmental justice, climate change, and pollinator and imperiled species.

With this background from the charter in mind, I want to give you a bit of background on the workgroup updates that you will hear today and tomorrow as a refresher for those who are familiar with the workgroups and as an introduction for those who are not familiar with sort of the workgroup structure.

So workgroups are sometimes formed to assist this FACA, the Federal Advisory Committee, with research, information gathering, and documenting and drafting support documents for the committee's consideration and duties. As outlined in the PPDC charter, workgroups and subcommittees are formed by either EPA or with EPA's approval for any purpose consistent with the charter. Such

subcommittees or workgroups may not work independently of the chartered committee and must report their recommendations and advice to the chartered PPDC for full deliberation and discussion.

Subcommittees or workgroups have no authority to make decisions on behalf of the chartered committee, nor can they report directly to EPA. And as a reminder, four PPDC workgroups were formed in 2020 and started working late in 2020. The groups explored charge questions on topics of emerging viral pathogens, emerging agricultural technologies, farmworker and clinician training, and pesticide resistance management. These are all pressing issues for the Office of Pesticide Programs and we are continuing to develop practical and protective approaches that work with our stakeholders based on some of the recommendations that were brought from these subcommittees and through the PPDC larger committee.

At the PPDC meeting in October of 2021, four PPDC workgroups reported out on the work they had done over the preceding year to address the various charge questions that were asked. The workgroups also submitted recommendations to the PPDC, which the PPDC discussed and sent forward as

full recommendations to the agency.

And the reports and the presentations, like all of the material for this session at all past PPDCs, is on our website, including full transcripts of everything that was discussed during the meeting.

Then during the Spring 2022 meeting, two additional workgroups were suggested, one focusing on environmental justice and the other focused on new approach methods or NAMs, and one focused on integrated pest management related to environmental justice, climate change, and biodiversity. So many of these workgroups were not formed, although they were discussed. The PPDC voted to continue the activities of the Emerging Viral Pathogens Workgroup under a new charge as the Emerging Viral Pathogen Implementation Committee, or EPIC, and the Emerging Technologies Workgroup was set under a new set of charge questions.

And then, finally, at the most recent and last PPDC meeting, the PPDC accepted recommendations from the Emerging Technologies Workgroup and voted to form two new workgroups. The Resistance Management Workgroup Number 2 was formed to handle three charge topics that came out of the original

Resistance Management Workgroup and the second workgroup was the Label Reform Workgroup. This means that PPDC currently has three active workgroups: The Label Reform Workgroup, the Resistance Management Workgroup Number 2, and the Emerging Pathogens Implementation Committee.

The Label Reform Workgroup will give an update to the PPDC on their progress after lunch today. That session will also include the introduction of an EPA white paper on digital labeling, which dovetails with the workgroup charges.

And EPIC is the next session and that will talk about resistance management and they will give an update tomorrow morning. And then each session will be followed by a discussion amongst the whole PPDC, and we welcome active member engagement and direction to the workgroups. This is a discussion facilitated by me, the Chair, but really this is your discussion and I will sit back and enjoy that discussion as it progresses.

In addition to the workgroup updates, we have interesting sessions over the next two days, again, based on input from the PPDC members. We're going to start off with the presentation from the

work that OPP has done this past year with regard to science and technology and all the various deliverables we had last year and sort of what we see happening over the next year, and that will follow also another discussion open to this group, if you'd like to discuss anything that OPP has done in this past year and reflect upon that and provide advice.

It is not a Q&A session, but it's more a discussion for you to sort of set the stage for what OPP has been doing this past year and really give you as deep of an understanding as we can for all the great work. And then I hope after hearing about OPP's accomplishments, PPDC members will provide feedback that will OPP chart a path forward.

The other thing is, in addition to the workgroup updates and the Office of Pesticide Programs' updates, we're going to share some updates on recently announced science policies related to the Endocrine Disruptor Screening Program, another science first that occurred last year, and then we'll also provide updates and hear stakeholder perspectives on environmental justice, endangered species activities, and engage in discussion with the PPDC again after those topics are presented.

We have some outside speakers as well, in addition to EPA speakers to provide different perspective for the PPDC members.

So I'm really personally happy to be in person. I enjoy it. It is great to see people and look people in the eye instead of the little square boxes that we're so used to nowadays. So I'm definitely interested in talking to folks after the meeting as well and offline. Hit me up with any questions you may have.

Also, the PPDC really has a history over these many, many years of engaging in open dialogues and respectfully sharing different opinions with the goal of really working together as a committee and providing advice to EPA, and we are confident that the meeting today and tomorrow will result in really helpful feedback for us as it has in the past with many of the recommendations that were made by the subgroups.

And, now, in concluding my remarks, we'll turn to the member introductions. I'll hand it over to Jeffrey and acknowledge that this is the last meeting for some of our members who have sort of termed out. And thank you for your many years of service and we have many new members joining and I'm

really looking forward to meeting some of the new members as well.

So for those of you who have been here for a while, thank you so much for your service. Those who are continuing, thank you for your continued service. And to the new members, welcome.

So now, I will hand over to Jeffrey.

PPDC MEMBER INTRODUCTIONS

JEFFREY CHANGE: Thank you, Ed.

Now, I will roll call numbers of the PPDC. I will call these in alphabetical order by first name. The list of members will be shown on the screen. Those who have an asterisk next to their name are departing members. We thank you for your service.

When I call your name, please unmute your microphone and tell us your name, role, the organization or group you represent and their mission. And as a reminder, please mute your microphone when you are finished.

The first name I will call is Alexis Temkin.

ALEXIS TEMKIN: Hi, my name is Alexis Temkin. I am a senior toxicologist with the Environmental Working Group, proudly working on

pesticide toxicity to ensure safe use of pesticides for public health protection and the environment.

Happy to be here.

JEFFREY CHANG: Amy Asmus.

AMY ASMUS: Hi, I'm Amy Asmus. I am from Asmus Farm Supply where my team and I advise growers in production of corn and soybeans. I represent the Weed Science Society here on PPDC. Thank you.

JEFFREY CHANG: Anastasia Swearingen.

ANASTASIA SWEARINGEN: Hi, I'm Anastasia Swearingen and I am the Executive Director at the American Chemistry Council Center for Biocide Chemistries, and so our mission is to preserve and promote the use of antimicrobial chemistries. And I guess I'm a continuing member of the PPDC.

JEFFREY CHANG: Aaron Lloyd.

(No response.)

JEFFREY CHANG: Becca Berkey.

BECCA BERKEY: Hi, I'm Becca Berkey. I am at Northeastern University in Boston, Massachusetts, but here representing a coalition of Coming Clean, the Farmworker Health and Justice Team, which works for better working conditions, stronger health and safety regulations, and reduced toxic chemical exposures for farmworkers specifically.

JEFFREY CHANG: Bob Mann.

BOB MANN: Good morning, I'm Bob Mann with the National Association of Landscape Professionals. Great to see all of you this morning.

JEFFREY CHANG: Caleb Ragland.

(No response.)

JEFFREY CHANG: Cameron Douglass.

CAMERON DOUGLASS: Hi, good morning. Thanks for allowing me to participate virtually. I'm with USDA's Office of Pest Management Policy and our mission is to represent the views of specialty and minor crop producers and other growers as part of the registration process.

JEFFREY CHANG: Charlotte Liang.

CHARLOTTE LIANG: Good morning, everyone. I'm Charlotte Liang. I am a chemist with the U.S. Food and Drug Administration, Center for Food Safety and Applied Nutrition, Office of Food Safety. Our mission is to protect and promote public health. We monitor pesticide residues in food and enforce EPA's pesticide tolerances. Thank you.

JEFFREY CHANG: Charlotte Sanson.

CHARLOTTE SANSON: Yes, hi, thanks. I'm Charlotte Sanson. I'm head of North America Regulatory Affairs and Sustainability for ADAMA, and

I'm located in Raleigh, North Carolina. I represent the registrant community for conventional crop protection, and our mission is to provide crop protection solutions for the grower community. Thank you.

JEFFREY CHANG: Damon Reabe.

DAMON REABE: Hi, I'm Damon Reabe. I'm an aerial applicator from Wisconsin here representing the National Agricultural Aviation Association.

JEFFREY CHANG: Dave Tamayo.

(No response.)

JEFFREY CHANG: David Shaw.

DAVID SHAW: Good morning, I'm David Shaw, and I am from Mississippi State University. I am the past President of the Weed Science Society of America and also the past Chair of its Herbicide Resistance Education Committee.

JEFFREY CHANG: Dawn Gouge.

DAWN GOUGE: Good morning, everybody. I'm Dawn Gouge. I work for the University of Arizona. I'm a medical entomologist and IPM specialist. I'm here representing the National Environmental Health Association today. My personal goal in all that I do in work is to improve human health and wellness. Thank you.

JEFFREY CHANG: Dominic LaJoie.

DOMINIC LAJOIE: Good morning, everybody. My name's Dominic LaJoie. I'm a potato farmer from the State of Maine, and I'm here representing the National Potato Council.

JEFFREY CHANG: Gary Prescher.

GARY PRESCHER: Good morning, everyone. I'm Gary Prescher and I am from -- I'm a farmer from Minnesota, and I am representing the National Corn Growers Organization.

JEFFREY CHANG: Gretchen Paluch.

GRETCHEN PALUCH: Good morning. I'm Gretchen Paluch and I'm the Pesticide Bureau Chief at the Iowa Department of Agriculture and Land Stewardship. I am representing the American Association of Pest Control Officials. Thank you.

JEFFREY CHANG: Jasmine Brown.

(No response.)

JEFFREY CHANG: Jessica Ponder.

(No response).

JEFFREY CHANG: Jim Fredericks.

(No response.)

JEFFREY CHANG: Joseph Grzywacz.

JOSEPH GRZYWACZ: Hi, my name is Joe Grzywacz. I'm at San Jose State University and I

represent essentially public health, related research, and health outreach, particularly to the agriculture workforce.

JEFFREY CHANG: John Wise.

JOHN WISE: Hi, I'm John Wise, Professor of Entomology, Michigan State University. I've worked with fruit growers for over 30 years helping address pest management problems and I also work with the IR-4 Project that assists in delivering new product labels for specialty crop growers. Thank you, everybody.

JEFFREY CHANG: Karen Reardon.

KAREN REARDON: Good morning, everybody. I'm Karen Reardon with Responsible Industry for a Sound Environment here in Arlington, Virginia, and our association represents the companies providing pest control solutions into nonagricultural settings.

JEFFREY CHANG: Keith Jones.

KEITH JONES: Good morning. I'm Keith Jones. I'm with BPIA, the Biological Products Industry Alliance. We represent the biopesticide industry.

JEFFREY CHANG: Lisa Dreilinger.

LISA DREILINGER: Hi, good morning. Lisa

Dreilinger, Global VP of Regulatory and Digitalization at Arxada, and Arxada is about better science to solve the world's toughest preservation challenges.

JEFFREY CHANG: Mano Basu.

(No response.)

JEFFREY CHANG: Marc Lame.

MARC LAME: Hi, I'm Marc Lame. I'm with the Indiana University. I represent public universities. I am an IPM specialist, an entomologist, and my overall goal is to use integrated pest management to enhance efforts to address environmental justice, biodiversity, and global climate change.

JEFFREY CHANG: Mark Johnson.

MARK JOHNSON: Good morning, I'm Mark Johnson, representing the 20,000 members of the Golf Course Superintendents' Association of America, and I am the Director of Environmental Programs. Our mission at GCSA is dedicated to serving its members, advancing their profession, improving communities through the enjoyment, growth, and vitality of the game of golf, and essentially that represents more than 2 million acres of the golf course footprint in the United States alone.

It's been a pleasure serving on this committee and thank you.

JEFFREY CHANG: Mayra Reiter.

MAYRA REITER: Good morning. I am Mayra Reiter with Farmworker Justice. Our mission is to empower farmworkers, to improve their living and working conditions, immigration status, occupational safety, health, and access to justice. And it's great to be here with you all today.

JEFFREY CHANG: Mily Trevino Sauceda.

MILY TREVINO SAUCEDA: Good morning, Mily Trevino Sauceda. I represent Alianza Nacional de Campesinas, which means the National Alliance of Farmworker Women. And our mission is to unify the struggle to promote farmworker women's leadership in a national movement to create broader visibility and advocate for changes to -- that ensures our human rights.

One of our four priorities -- because we have several -- is to call upon the elimination of the use and misuse of pesticides and mobilize an environmental justice. Our organization is representing 15 community-based grassroots organizations and we're in 20 different states around the United States. Thank you.

JEFFREY CHANG: Nathan Donley.

NATHAN DONLEY: Hi, Nathan Donley here. I am the Environmental Health Program Science Director at the Center for Biological Diversity, and we work to help protect people in the broader environment from chemical toxins.

JEFFREY CHANG: Patrick Johnson.

PATRICK JOHNSON: Good morning. My name is Patrick Johnson. I farm cotton, rice, corn, and soybeans in Mississippi, and I'm representing the National Cotton Council on the committee. Thank you.

JEFFREY CHANG: Steven Bennett.

STEVEN BENNETT: Good morning. I'm Steven Bennett with the Household and Commercial Products Association. I'm pleased to be here, first time in person in a while and also sad that this is my last meeting as a member. I work for an association that represents companies in the consumer space that develops home pesticides and disinfectants. Thank you.

JEFFREY CHANG: Walter Alarcon.

WALTER ALARCON: Good morning. My name is Walter Alarcon. I am a research epidemiologist. I work with CDC NIOSH, National Institute for

Occupational Safety and Health. I work with the SENSOR Pesticides Program and our mission is to track acute pesticide poisonings so we can identify prevention factors. I'm glad to be here. Thank you.

JEFFREY CHANG: Finally, Wendy Sue Wheeler.

WENDY SUE WHEELER: My name is Wendy Sue Wheeler. I'm the Director the Washington State University Pesticide Resources and Education Program. The organization that I represent is AAPSE, the American Association of Pesticide Safety Educators. AAPSE's mission is to enhance public health and environment through involvement in education, outreach, and research which directly benefits pesticide managers, policymakers, and the public for nearly 2 million people across the United States. It's great to be here.

JEFFREY CHANG: Big thanks to the members of the PPDC for being here today in person and virtually and for your service to EPA. I'll hand it back over to Ed to give an OPP update.

ED MESSINA: Thanks, Jeffrey. There were too many asterisks on the slides. I'm sorry to see many of you leaving. It's been great having you

serve.

All right. So we'll throw my slides up on the screen and we'll go through basically what has the Office of Pesticide Programs been doing for the last year. We've got an hour and a half, I believe. An hour with a half an hour discussion.

MICHELLE ARLING: Yes.

ED MESSINA: All right. So buckle up. We've got a lot of slides, a lot of information coming at you.

I'll wait until it goes into presentation mode.

All right. If you don't know by now, I am Ed Messina. I am the Director of the Pesticide Programs here at OPP.

All right. So I'm going to give you some organizational updates, who's in what chair, you know, who has sort of moved around, an update on FTEs and -- yeah, you might want to turn your chairs around unless you are logged in, I guess. It's like you guys have the front row to the movie theater. Sorry.

UNIDENTIFIED MALE: We need some bar stools that --

ED MESSINA: Some bar stools, okay. We'll

take that as a note for the next PPDC.

We're going to talk about our OPP-wide priorities, implementation of PRIA 5, which is a new statute that passed last year and had a lot of deliverables for OPP and we've been tracking those, the FY23 highlights and accomplishments, some process improvements. As folks know me, I'm a lean advocate. I like to improve processes where I can, and we did have a number of process improvement activities we took on this year.

The digital transformation update, as folks also know, OPP has been in the midst of trying to upgrade our digital systems. I think the e-labeling group is an example of maybe what we could try to do with newer technology to help Office of Pesticide Programs deliver better information to the end user and better information to the public about the availability of different pesticides.

We had some great crop tours this year. We sent out a bunch of folks to learn from growers in the field and really understand how pesticides are being used and in farmworker committees as well.

And then I'll just wrap up with our '24 priorities, which will look very similar.

Okay. So this chart is designed to sort

of show you where folks are in the chart, but also it's sort of a representation of how OPP does its work.

As you know, on the right-hand side, we have the science divisions, Health Effects Division doing the human health risk assessments; Environmental Fate and Effects Division doing our environmental work and Endangered Species Act activities; and then the Biological and Economic Analysis Division, devoted to understanding the benefits that pesticides bring to growers and users. They are the advocate within the office to understand how essential a particular pesticide may be.

Those science divisions feed into the left-hand side, the Registration Division and the Pesticide Reevaluation Division that will take that and make a risk management decision. It's structured based on how the statutes ask us to do those various things.

And then Antimicrobials and Biopesticides do a lot of the science in-house as well and they are responsible for, of course, the surface disinfectants that we were pretty busy with approving products for SARS-CoV2 disinfection on

surfaces. And then the Biopesticides and Pollution Prevention Division, which has a lot of the biologicals and genetics in that program as well.

Starting with the saddest news first, Elissa Reaves, who I'm looking at right now, was selected to be an Office Director in the Office of Pollution Prevention and Toxics. So she's going to go see if she can go run the TSCA toxics program or TSCA as the statute. She's sitting in the back there. So we are sad to lose her, but also very proud of her accomplishments and looking forward to working with her now as a copartner.

Tim Kiely will probably -- he's the Deputy -- will be acting for a little bit while we put out official announcements to seek both a temporary and a permanent for that position.

Bill Smith, this year, moved -- working upwards from the left in the Registration Division, Billy Smith moved from the BPPD Division to RD. I know Keith was sad about that, but he quickly got a great new person to work with, Madison Le, who is now the Director of the Biopesticides and Pollution Prevention Division, and she's the Director there.

And then Anita Pease remains and has been there all through COVID, the Antimicrobials Division

Director. And then on the right-hand side, Dana Vogel as the Director for the Health Effects Division, and then Jan Matuszko as the permanent Environmental Fate and Effects Division Director, and then Anne Overstreet as the Biological and Economic Analysis Division.

Mike, to my left, is the Deputy Office Director for Programs. We did select a new acting Deputy Director for Management. So that's someone who deals with the budget and IT and HR, and that's Leo Gueriguian. And then, of course, we have our Science Advisors. Our Lead Science Advisor, Monique Perron replaced Anna Lewitt, who also went over to OPPT. It's not a trend, so don't worry.

And then Catherine Aubee was selected to be a Senior Science Advisor for the Endocrine Disruptor Screening Program. We had not had a Science Advisor for that program, so I think that's a commitment -- a renewed commitment of understand the effects of endocrine -- endocrine effects for certain pesticides.

And then Susan Jennings is our Senior Advisor for Public Health. The antifungal framework that came out this year that I'll talk a little bit about was spearheaded by Susan Jennings.

And then, of course, we have the Endocrine Disruptor Screening Program that came over to the Office of Pesticide Programs from the reorganization that occurred back in 2020-ish. So that sort of completes the sort of overview of the office and who is in the leadership chairs.

In terms of FTE, PRIA 5 did provide some additional money for the organization, but it really only replaced the money that had been being used from the bank account, that had been stored up from FIFRA fees. So it wasn't -- although it was an increase in funding, it wasn't sort of an actual increase in funding. So the good news is without that funding OPP would have probably dipped to around 400 FTE, the lowest it had ever seen. You can see, you know, back in the 2000s, we were about 800 staff and now we're hovering at 500 and change. Without the PRIA 5 influx of fees, we would have dipped to about 400 staff. So with new PRIA 5 passage, we were able to maintain a level sort of status with our FTE.

We hired -- we went on a -- with the new money, we were aggressively hiring. We hired 40 new people into the Office of Pesticide Programs. I know the PRIA Coalition was really interested in

making sure we hired up with that money, and then we lost 40 people last year. So the exact amount of people that we hired left, but had we not hired, we would be 40 people down and that would be, you know, also painful. So, you know, every cloud has a silver lining. There's a small silver lining there.

All right. So when I talk about the Office of Pesticide Programs' priorities, I used to talk about registration and registration review being our top priority, right? Getting new active ingredients into the hands of growers who need them. Meeting our commitment to doing registration review. The biggest priority this past year was implementing all of the requirements that came about as part of PRIA 5. And there were many, you know, 20 or so different deliverables that I'll walk you through.

The other thing we're focused on is Endangered Species Act efficiencies and progress on meeting our Endangered Species Act obligations, lots of activity there, and we're going to have a separate session on that.

Implementing the agency's priorities, environmental justice and climate change.

Advancing the state of the art of the science, so as I mentioned, endocrine disrupting

screening. PFAS is another topic that's been coming up. We've been focused on that. I've got some information on that for you.

Nanotechnology, working on advancing, you know, what is a nano particle, should that be approved, what are the different science protocols, or things we need to consider for particles that are nano as part of pesticides. And new approach methods, sort of replacing animal testing with computational models in silica science.

Lots of rulemaking occurred, lots of guidance documents got issued. I've got a smattering of those. We had lots of litigation to defend against and we settled a couple of cases this year. That will put us on a trajectory for having additional deliverables coming out in the future.

And then because we have, you know, the greatest employees in the world, some of the -- you know, I would say, the smartest people I have met -- you know, as I frequently say, my view of the federal worker is very different from most. Most everyone in OPP has an advanced degree or a PhD and they are, you know, experts in the world and they are sought out from other countries to talk about the work that they do, entomologists, biologists,

you know, weed scientists, it runs the gamut. And so we make sure that we're meeting their demands through our employee experience and also the digital transformation.

All right. So this is what PRIA 5 did. It increased about $11 million in maintenance fees. We had collected on average about $31 million. Now, this year, it's $42 million that we collected.

There was also an across-the-board 30 percent increase for the pesticide registration service fees. We projected a $3 million increase in 2023. We didn't realize that, actually, and we're expecting a $6 million increase for '24 up to 26 million. Again, that could be less.

So overall, the fee part of our money that we get represents a third of our money. So we get -- a third of our budget is from fees that we collect from those two sources and two-thirds is from the appropriations. And, again, the maintenance fees last year were 40 million. The registration fees were actually only 20 million. So they were lower than the $23 million anticipated, which impacted, again, our ability to sort of hire up because, you know, we didn't see that money.

PIRA5 also asked Congress -- there is a

trigger in PRIA that says you can't access these fees unless you also meet your minimum appropriation threshold, Congress, and that minimum appropriate threshold that the PRIA Coalition suggests was 166 million. Congress only allocated 138 million and what Congress does each year is they say, yep, we know about that provision, we're giving ourselves a waiver and we're not going to meet the 166 million.

So some of what, you know, was expected as part of PRIA 5 increases were not realized as part of the appropriation, and the fees that were increased really just supplanted the surplus that had existed in the spend-down plan. So essentially it was, you know, increased money, but it was a flat line for actual money received to the agency between sort of '22 to '23.

All right. So along with the money, there were set-asides for which the agency was required to use that money for. They were set-asides for us to address what are called, you know, non-PRIAs or non-fee regulatory actions to reduce the backlog. We have focused and spent money on reducing the PRIA backlog -- the non-PRIA backlog, as they're referred to, and we've had some success this past year and we're looking to continue that success in '23 and

‘24 to reduce the non-PRIA backlog.

There was lots of great money given to -- for pesticide safety grants, including farmworker training and education, healthcare provider training, partnership grants, and pesticide safety education programs that were previously funded by PRIA fees. These are now funded by the FIFRA fees. And then technical assistance grants as well.

There was set-asides to develop test methods for antimicrobial devices; set-asides for the Vector Expedited Review Voucher Program, which I’ll talk a little bit about later; set-asides for a Pesticide Surveillance Program; funding for interagency agreements with CDC and NIOSH to collect pesticide incident data and display that data, and we did that this past year, we opened up all of our pesticide incident data to the public; set-asides for training and set-asides for PRIA -- similar to PRIA4, for good laboratory practice inspections, making sure that the labs that are doing those studies are doing those studies in a way that has good protocols and is -- we have the confidence in the studies that are being submitted.

So the set-asides totaled about $10 million. So you see that $11 million increase. $10

million is going to the set-asides, which includes these topics. And there had been set-asides in the past, so the set-asides represent an increase of $3.6 million of the 11 million. But, in general, we spend about $10 million to provide programs to farmworkers and training and other programs. So we're pretty proud about that work.

So along with the money came some deliverables and requests in PRIA 5. A requirement that the pesticide labels be bilingual and in Spanish, I think a great success. We had had some early successes in that program by publishing the Spanish translation guide for people to voluntarily use and to have labels be translated in Spanish and now it is a requirement in the statute. So that's a great thing and we're continuing to move forward on that. We had lots of stakeholder engagement sessions this past year, including with states, to ensure that we're implementing on a schedule the translation of pesticide labels into Spanish.

We were required to provide an Endangered Species Act guidance to registrants. There were some PRIA process improvement requirements, including how we change the way we're renegotiating provisions or submissions that come in. There were

requirements to do the IT upgrades on a schedule; requirements for a centralized posting for guidance and pesticide-related resources; a posting of data evaluation records for PRIA actions; conducting an audit of OPP processes and workflows and workforce.

There were some provisions that fortunately this week we don't need to worry about but maybe in the future that are required that the agency, at least, have a certain amount of footprint when there was a government shutdown, accessing fees during that time of shutdown. So we haven't had to activate that, but those provisions are now in PRIA 5.

The other thing that the PRIA 5 did, along with the omnibus bill that was passed at the time, was it extended the registration review deadline from 2022 to 2026. So we have a little more time to complete the registration review decision actions and I've got some metrics on that for you later, and then lots of reports to Congress for how we're meeting our metrics.

So how did we do? We scored 100 percent. We didn't miss a single deadline in PRIA 5. We delivered everything that was required. In fact, for the digital transformation, we did that three

months earlier than was required. So we're pretty proud about the work that we've done under PRIA 5. There's still some deliverables that are coming up in the near future that are going to be a little challenging. So I'm going to take my A this year and we'll see. Hopefully, it will be a B-plus and A-minus next year, because there's a couple that are a little hard to meet.

But we implemented a new framework for renegotiating PRIA applications. We began efforts to reduce the non-PRIA backlog. I've got some metrics on that. We did all the required sort of outreach for bilingual labeling and we successfully migrated all of the Office of Pesticide Programs into the new Salesforce platform three months earlier. The date was December and we did it by September.

And then we're hoping to build on that. There's a number of other digital transformation deliverables in PRIA 5, like external facing dashboards and the like, that we're working on.

We also centralized -- provided a central webpage for guidance documents and links to pesticide-related resources. We issued the Endangered Species Act guidance to registrants, both

for new actives and new uses, and then we are on target, the deadline is December and we're going to meet that deadline, for putting out guidance on what's called the Vector Expedited Review Voucher Program, or VERV, which I'll talk a little bit about later. I don't have a lot of time today.

And then we managed funding for the Interagency SENSOR Program, one of those grants, we issued that to Walter over there and got that out the door.

And then we created a centralized website. You can scan the QR code that is appearing on your screen. Oh, I didn't advance, so let me catch up.

You can scan the QR code and we devoted an entire website to what are the requirements for PRIA 5 -- and everyone will have these slides as well for taking home and they'll be on the PPDC website. So we have a QR code you can scan and see what are the deliverables in PRIA 5 and how did we do. And so each time we check something off, we'll post something on the PRIA 5 website to keep people informed about our progress.

All right. So how did we do last year? In general, we got about 10,000 submissions for PRIA via our portal -- there we go. We got about 10,000

submissions to our portal. We had 8,000 PRIA and non-PRIA actions completed. So my talking point still holds. Each year, we get a record of requests, we complete a record number of decisions, and we have a record backlog. All three of those things remain true this year.

And we registered 20 new active ingredients, providing new tools for growers. We issued 23 Section 18 emergency exemptions requested by the states for Wolbachia to control avian malaria in Hawaii. That was a pretty cool project. Malaria is impacted endangered birds in Hawaii and Wolbachia was used to suppress mosquito populations to reduce the transmission of malaria by the culex mosquito, and it is an example of where pesticides can actually be used to help endangered species. So that was a Section 18 request from State of Hawaii, and then other invasive species that have popped -- invasive pests that were -- needed Section 18s.

We did 40 products submitted by EPA regional offices for enforcement cases. So where there's an enforcement case and we need to -- we're the ones who can kind of read the label and say, yeah, this is what this means and we did 40 case reviews for supporting the regions and the states

and sampling as well, testing samples for states as part of their enforcement to ensure that the Pesticide Program is being implemented appropriately across the country.

Last year, we had 96 press releases. So you think about, you know, something rising to the level of press release, getting an OPP update, we had 96 of those. That's a pretty large body of work. I went to a couple of state meetings and one of the states says, can you guys slow down, you know, we're -- because a lot of things we were putting out, we were being transparent and we were putting them out for public comment. So along with those, you know, OPP updates came a request for stakeholders to say here's our science, what do you think, please provide us comments. So that almost 100 of those pretty big ticket items.

And then for integrated pest management, I know Mark is concerned about that, we had eight IPM webinars and we reached 10,400 attendees and we responded to about 2,800 calls and emails and increased the IPM subscriber distribution list to about 38,000 subscribers, so making contacts with those particular folks that are interested in IPM.

Just to give you a graphic of, you know,

what 96 represents, it wasn't a record. COVID year had the biggest record, 99. I'm not sure why we didn't just issue one more to get to 100, but we were at 99. On average, we do about 50 or 60. So it was a pretty banner year for OPP updates.

Okay. How are we doing on registration review? As you know, our deadline now is 2026. We have done 789 pesticide cases to review by that deadline. We've done 717 draft risk assessments. That represents a significant body of scientific work. So we are 91 percent on the way there to meeting the deadline for draft risk assessments. We also did 680 proposed interim decisions. This is where we take that science and propose mitigations based on the new science that we look at. And then we have 614 final or interim decisions, so we're about 80 percent of the way there.

We also, as part of registration review, want to make sure that those labels get updated. So we've had a big effort to update. Once we put those mitigations in place through that decision, we approved about 680 labels last year with new requirements and new mitigations in place.

All right. Some pretty big science things happened last year, too. So we published our

Ethylene Oxide Proposed Interim Decision and Draft Risk Assessment. Ethylene Oxide is used for sterilizing medical equipment. It's used in those purposes. It was pretty highly followed. In combination with the Office of Air, we have been trying to reduce the amount of EtO used while also maintaining the effectiveness of sterilizing medical equipment that is needed for, you know, transplants, and any time you have a medical device that's put in your body or a children's body, you know, for heart valve, you want to make sure that it's sterile. So we looked at risks associated with EtO and we issued extensive comments received on the interim decision and draft risk assessments.

A number of other notable chemicals this year that received a registration review was DCPA. We suspended that based on the failure of the company-provided information to the agency. That company has since provided that information and the suspension was lifted and we continue to evaluate DCPA for its human health impacts.

Pet collars containing TCVP, we had a number of scientific work associated with that. Seresto pet collars also received some extensive treatment, in coordination with FDA on examining the

impacts of Seresto on pets. We put new mitigations in place for that.

We provided early mitigations -- so normally, we wait or the draft risk assessment and the proposed interim decision. In looking at some of the health -- human health issues that were arising from organophosphates for Tribufos, Diazinon, Phosmet, and Ethoprop, we pulled forward some early mitigations for worker protections related to the phosphates, these four.

We did Sulfuryl Fluoride, early mitigations as well, and then we published the Rodenticide Proposed Interim Decision, which included four documents and 11 active ingredients for rodenticides. We received extensive comments on those particular proposals as well.

For Atrazine, we released the proposed revisions to the interim decisions. During public comment, we received a lot of comments from folks that we should do a scientific advisory panel. For those of you who are not aware, you know, if we have novel questions of science, we can convene an external panel of scientific experts. And so we convened an external panel related to which studies should be associated and considered as part of our

designation of what's called a CE-LOC related to atrazine exposure in waterways. So that was a very successful SAP and we expect to make a decision in 2024 around atrazine.

All right. Paraquat, this was something that many people had interest in this year. So I've got a couple of slides on this. So we initiated registration review for Paraquat in 2011. In October of 2019, we released the draft human health and ecological risk assessment. And as part of the registration review, the human health risk assessment was developed to support the risk management decisions for bystanders and for agricultural workers for all labeled uses of Paraquat.

And as many folks know, Paraquat is a restricted-use pesticide. It is used to control weeds and grasses with handling an application intended only for certified applicators. It is one of the most widely used pesticides in the U.S. and the human health risk assessment involved the evaluation of risks from dietary consumption of food, from drinking water, in addition to spray drift exposure, and exposure -- potential exposure from bystanders and also for dermal and inhalation

exposures for agricultural workers. So we looked at the full gamut of human health exposure for Paraquat.

And we also recognized that guideline and non-guideline studies in the toxicity databases that exist that are used to select endpoints for Paraquat represent really only a fraction of what's available in the open literature.

You can see that on the database studies, we had our own database studies, but we did an extensive search, also, of open literature searches. And so the -- what's available in the open literature is that there are some public health concerns revolving around the neurotoxicity and the potential link of Paraquat to Parkinson's disease. And I'm going to go into a little bit about the science around that.

So we conducted a systematic review of the data, and as a result of the systematic review of the literature on Paraquat, end use and its relation to Parkinson's disease, we also released in 2019, a 60-day public comment period for the feedback from stakeholders on the data that we had. Again, we follow the law, we follow the science, and we're transparent about how we're doing that. So we

provided all of our studies and our analysis of the studies related to Paraquat in 2019. And in that 60-day public comment period, we allowed for that feedback and we received 73 public comments regarding the scientific documents that were received.

And while the comments varied in scope, the major comments were related to concerns associated around Paraquat and the use and development of Parkinson's disease and other issues.

In October of 2020, as a result, we released the Paraquat proposed interim decision and an addendum to the Paraquat draft human health risk assessment. And after reviewing the public comments in the proposed interim decision, we released what's called the Paraquat interim decision in July of 2021.

And so just to read people into some of the data, as a major concern among the general public was the uncertainty around the relationship between exposure to Paraquat and the development of Parkinson's disease. A methodological approach was taken to comprehensively evaluate the available studies in the open literature to inform EPA about this relationship. The Parkinson's disease

systematic review consisted of collaboration with experts from the National Toxicological Program to develop a search strategy for screening the open literature for human, animal, and in vitro publications to evaluate the relationships between Parkinson's disease using the weight of evidence.

The NTP is part of the National Institutes of Health and so we consulted with the National Institutes of Health related to Parkinson's. And NTP's mission is to partner to build knowledge and advance toxicological science to protect and promote human health.

So the systematic review, for those of you who don't know, is an investigative approach that uses standard methods to collect, evaluate, and integrate scientific information on a topic of interest. Just over 7,000 publications were screened as part of this collaboration. Additionally, nearly 600 publications were screened independently by EPA as part of a systematic review of the epidemiological literature that investigated the relationship between Paraquat exposure and any adverse health outcomes.

The agency was transparent through the entire process, including publishing the systematic

review document and addressing comments following that 60-day public comment period. A total of 28, 217, and 244 human, animal, and in vitro studies, respectively, were found relevant to evaluate the association between Paraquat exposure and Parkinson's disease, and all human subjects were epidemiological in nature. Less weight was placed on the in vitro studies as they primarily focused on the underlying mechanistic processes behind the biology of Parkinson's disease. However, they were used to support findings in the whole animal studies and human studies, and after an initial screen, you can see here that 26, 11, and 34 human, animal, and in vitro studies remained for further detailed evaluation.

The studies identified for the systematic review were evaluated for study quality, relevance to human health, species tested, and routes of administration. Some studies suggested possible links between Paraquat and Parkinson's disease. All epidemiological studies were considered, but reported mixed findings and were limited in their relevance to human exposure. The strengths and limitations of each study were carefully considered in its contribution to the weight of evidence.

Following the agency's 2019 systematic review, an updated study of the agricultural health study cohort was published in 2020, which reported no association between Paraquat and Parkinson's disease. So notably, this updated study did not replicate the earlier 2011 finding using the same AHS cohort, which suggested, at that time, a potential association between Paraquat and Parkinson's disease.

So as a result, using the weight of the evidence approach, because of the mixed and conflicting results across the evaluation studies, the agency was unable to establish a clear cause-and-effect link between Paraquat use and Parkinson's disease, and that's where we are today.

We are continuing with our analysis and -- and just a reminder, that we've already put lots of mitigation in place for Paraquat. So over the past decade, we've completed two significant mitigation decisions. The first was completed in 2016 and was focused on preventing accidental ingestion of Paraquat. With that decision, EPA limited Paraquat use to certain applicators only, required Paraquat-specific training for anyone using Paraquat, required closed transfer systems, or what are called

non-bulk Paraquat -- on all non-bulk Paraquat containers.

And then the good news is since that time, there have been no reported deaths from Paraquat. We had had, in the past, experienced poisonings from Paraquat. Some of them were associated with intentional use, but since that -- since we've put those mitigations in place, we've had no acute deaths from Paraquat.

The second major mitigation decision was the registration review decision in 2021, and that decision required additional mitigation measures to address bystander and occupational risks. The ID placed limits on aerial applications, imposed mandatory spray drift control measures, required the use of enclosed cabs, required additional personal protective equipment, prohibited the use of handheld application, and extended and restricted the restricted entry intervals for several uses. All of the mitigations required in 2016 and 2021 are now on all of the labels.

All right. And then, lastly, just to give you an update on where we are today, so even with these mitigations, we understand that concerns around adverse outcomes following Paraquat exposure

are still circulating among a number of stakeholders and Paraquat is currently in litigation.

In September of 2021, several nongovernmental organizations or environmental governmental organizations -- nongovernmental organizations, including the Michael J. Fox Foundation and Earthjustice, filed a petition challenging the interim decision. In November of 2022, both EPA and the petitioners agree to hold the case in abeyance while EPA reviews the concerns raised by the petitioners. As part of this agreement, the draft document of the agency's considerations will be published for public comment by the end of January of 2024 with a final version scheduled for January of 2025.

With the ongoing review of Paraquat, EPA is committed to transparency in its decision-making and to use the best available science, which includes monitoring new and emerging studies in order to remain informed about the potential for adverse health outcomes and associations with Paraquat related to Parkinson's disease.

And then so, for example, two nongovernmental organizations have recently submitted additional epidemiological and toxicity

information. That was published after EPA's 2019 systematic review for consideration by the agency, which is -- continues to be under review by us.

And, also, we're aware of the private litigation that exists amongst, you know, the tort law, and EPA is not a party to any of those ongoing proceedings. So we will -- stay tuned for additional information related to the evaluation of Paraquat, but currently the agency has found no association with Paraquat use and Parkinson's disease and no clear indications. But we'll continue to review the data and the studies and put that out for public comment and be transparent about how we arrive at those decisions.

All right, next slide. Chlorpyrifos, another pretty big case. So as folks know, who are following this, very recently, in October, the Eighth Circuit vacated our Final Rule revoking chlorpyrifos tolerances. They remanded the rule back to the agency to consider the record on chlorpyrifos and determined whether any food uses could be retained.

The mandate has not issued yet, and that's just a normal process. First, the decision comes out and then the Court's mandate, meaning it's sort

of active and it's a live order. And there wasn't sort of a schedule associated that we sort of have to consider it, but I understand that many folks are interested in what the agency's, you know, going to do with regard to chlorpyrifos given the Eighth Circuit's decision.

As folks also know, the Ninth Circuit had ruled and directed the agency to issue a final rule revoking all tolerances for chlorpyrifos, or within the 60 days that we had, make the safety finding. And the safety finding at the time would have included all uses of chlorpyrifos, for which we could not make the safety finding. So in August of 2021, I signed the document that revoked all tolerances for chlorpyrifos.

So we now had the Ninth Circuit decision, which said, you know, revoke all tolerances or make the safety finding in 60 days. We chose door number one. And the Eighth Circuit said door number one was arbitrary and capricious, and so we have to consider the Court's new ruling in the Eighth Circuit. So we're currently reviewing the decision. Obviously, there's litigation associated and I don't want to talk too much about it, but stay tuned. We're, you know, working on it, digesting the

Court's decision related to chlorpyrifos and we will, you know, provide guidance.

Currently, right now, all the final cancellations related to -- and the return programs remain in place. We haven't taken any action to change that course.

All right. So really incredible news on the C&T approvals. These are the state plans that allow restricted use pesticides, you know, to be used and all the training that occurs. We had the 2017 rule, which required that authorities in the states submit revised plans. These revised plans were designed to enhance the competency requirements for those restricted use pesticide applicators. They had new specialized categories, minimum age for applicators, noncertified applicator qualifications and supervisory requirements and then a recertification requirement.

We were worried about meeting the deadline and the deadline was extended as part of rule, but November 3rd was the deadline and folks who were tracking this -- we had developed a map of the United States and the territories to show where something was under review, where something was planned, and we met the deadline for November 4th.

I mean, an incredible level of effort. And every state and territory plan was approved successfully. So we have new updated state plans for better protections of the restricted use pesticide applicators and better training for those folks that are using restricted use pesticides. So that was quite a lift last year.

Some of the other big-ticket items, we registered two new conventional, new active ingredients that went through Endangered Species Act review, so showing that we can do ESA review for new active ingredients. It did take a little bit longer, but we got two of them out the door. We have a proposed new pesticide product containing the new active ingredient called Ledprona, which is a novel pesticide for potato crops. It's a sprayable RNAi, the first time in the world that something like that was done, some incredible science around that.

We registered a Lysol air sanitizer, a new product to treat the air, not just the surface, but to treat the air against bacteria and viruses, you know, requiring new protocols and studies for showing -- to demonstrate efficacy around that. So it's the first antimicrobial product released that

is effective for use in the air, that can kill both bacteria and viruses.

In terms of the raw numbers, I'll go over these quickly, but I'll -- you know, for your later reading information -- and I know folks like to know the specific data around, you know, how -- comparing year to year how we've been doing. RD had an incredible year, you know, 800 PRIA actions, 1,100 new uses. Again, the 2,000 non-PRIA actions also responded to and then the Section 18s, and then we had -- RD had 10,000 submissions processed, and so another sort of banner year for RD.

BPPD also completed a number of actions, 176 PRIA actions, 20 new active ingredients, and 3 new active ingredients completed without renegotiation, and then 760 non-PRIA actions. So the non-PRIA actions are getting done, even though there is a backlog.

AD, very similarly, 335 PRIA actions, 1,000 PRIA and non-PRIA actions. They also completed or closed out, as part of a process with the companies, about 3,900 non-PRIAs. So there was -- these were some of the PRIA actions that had been on the books for a while. We allowed the registrants to use -- to sort of go ahead with them

and we closed them out and we talked with the states about the ones we were closing out.

On ESA, we have an upcoming discussion, so I'll just -- the highlights from last year. We issued the draft herbicide strategy, the draft vulnerable species strategy. We had some really fun interactive maps, if folks got a chance to look at them, where, you know, the PULAs are there, and so that was, you know, a lot of great activity there.

We issued the first nationwide -- implemented the BiOP for malathion, and then we continued our Endangered Species Act biological evaluations. We did ten pesticides last year. So a lot of great work for ESA.

We also settled what was called affectionately the "megasuit" for ESA. So in 2011, the Center for Biological Diversity and Pesticide Action Network filed a complaint in Federal Court in California against EPA alleging it was violating ESA when it registered or reevaluated and registered -- or reevaluated 382 pesticides. That number was ultimately reduced about 35 active ingredients, covering about 1,000 products.

And in September of 2023, we entered a settlement to resolve those claims. And you'll see

that the settlement requires us to do some things that we have done and also to continue to do additional things.

So the agreement and the settlement include developing mitigation measures for listed species that are particularly vulnerable. So that's the vulnerable species pilot. Develop an herbicide strategy, which we released. Also coming to a theater new to you is a rodenticide strategy, an insecticide strategy and a fungicide strategy and we're hoping to issue those in the coming months, and the completing effects determinations for eight organophosphates and four rodenticides as part of the settlement.

And then CropLife, who are parties to the settlement, agreed to host a workshop for stakeholders to explore how to offset pesticide impacts for ESA-listed species.

I'm going to roll through a number of these slides, but I did want you to just see -- you know, we are a science-based organization and I just wanted you to see all of the science that was occurring in OPP, in addition to kind of the deliverables on the registration and registration review.

So the proposed framework for strengthening antimicrobial resistance framework was issued; plant-incorporated protectors exemptions. FDA and EPA discussions continue to occur related to pet products and genetically engineered organisms designed for pest control. We released ten years of data related to pesticide incidents and we made major updates to the list of pests of significant health importance.

In this room, we hosted for the first time outside of Europe the Joint FAO and WHO meeting on Pesticide Residues. They accomplished quite a lot in the harmonization of pesticide residues. The team -- I'll tell you, the folks that were here representing each individual country volunteering their time, they worked through the evening, you know, ordered pizza, and they worked through the weekend. So I was really impressed with all the volunteers from all the different countries. So we had the honor for the first time that JMPR was hosted outside of Europe and it was the first time held in this room in the U.S. And a number of other pretty big scientific meetings that occurred this past year.

We released a Virucidal Claims Guidance,

Residual Claims Guidance, meaning products that have a residual efficacy for surfaces. So we released that guidance. Draft efficacy test methods and guidance for Legionella disease in cooling towers; Soft Surface Textile Guidance, so being able to demonstrate that disinfection can occur on curtains and carpet and couches, the first time we're moving away from just hard surfaces. That was pretty impressive.

And then the Emerging Viral Pathogen Guidance, which really was born out of the PPDC, that guidance came out of workgroup that said you should have an emerging viral pathogen guidance, and thanks heavens we did that because we activated it for COVID and then very recently we also activated it for outbreaks of Ebola and Marburg virus this past year.

Pesticide-treated seeds, advanced proposed notice of rulemaking, and mixture and synergy petition response. We tested a number of PFAS -- pesticides for PFAS. We've developed additional PFAS protocols for testing of pesticides and then we completed consultation with another FACA, which is the children's health and farmworker FACA and we provided updates for how we're going to do our risk

assessments to take into account farmworker issues and family take-home exposures related to farmworkers that come into the home, and updated our assessments. And then we coordinated with another FACA called the NEJAC on the CHPAC youth and agricultural consultation as well.

We got all the cooperative agreements out the door, $5 million for PERC and AFOP. We worked on a proposed carcinogenic model for inorganic arsenic. DCPA and TCVP, I mentioned earlier. I mentioned the panel for Atrazine. We finalized guidance on sampling biases, acute fish retrospective manuscript, OECD paper, surface water scenarios and then we collaborated with USDA on the 4th pollinator workshop.

The Human Studies Review Board, which Michelle is our chair of, held seven meetings to ensure that any scientific studies that involve human test subjects are reviewed appropriately and ethically and either allowed or not allowed to be used by the agency where those ethical principles are not upheld. So there were seven meetings -- is that a record or -- it's a pretty big number. A pretty big number, seven HSRBs, one of them for the evaluation of formaldehyde, which we're doing a

joint interview with the Office of Pesticide Programs -- with OPPT

All right. So EDSP, we're going to have an entire session on this, but for the -- another first for OPP, right? The first was really incorporating ESA into our pesticide programs and now another first, incorporating the potential endocrine effects for pesticide products related to impacts on the endocrine system, ARER, thyroid, and steroidogenesis, sort of endocrine effects. So I'll leave that for the future meeting.

We did some updates to the climate adaptation plans. So remember, climate adaptation plan is not climate, you know, prevention. It's sort of how do we need to adapt to any changes of climate related to pesticide applications. And so Mike Goodis, to my left, worked on this as well. We streamlined the process. We're considering the impact on climate change and the resulting effects on evolving pest complexes, such as the expanded range of invasive or disease vectoring organisms, shifting crop production patterns and risk management options.

The plan has sort of three different phases. FY23, we developed a plan; FY24, we're

looking at case studies; and then FY25 for broader implementation.

We continue the work on environmental justice. A lot of the PRIA 5 implementation, related environmental justice, bilingual labeling updates, worker protection updates. The certification applicator's role is really related to our EJ work, the EJ grants, PPDC farmworker clinician training workshops, and then the WPS/AEZ rulemaking, which should be coming out in the next couple of months, sort of the status related to that, and then seeking input on the farmworker community.

These are some of the process improvements. Just to let you know, they're still going. RD did a pilot to reduce the non-PRIA backlog, and by lean projects, you know, you're sort of really looking at the process from soup to nuts. You're engaging with staff to see about ways that you can reduce the process time or waste in the throughput system, and then you're really taking measures and experts to really implement them.

All right, rounding home, the digital transformation. So we continue with the digital transformation. I am proud to show this is an

actual dashboard that we now have a window into the data for the first time for the Registration Division. So we're actually using data as an asset. You know, when I talk about this, I talk about the fact that as a science-based organization, every day we're using data to make scientific decisions. We need to use data to make decisions about the workflow.

So first you got to collect it. You have to have one truth into the data. So these are some actual dashboards that we're starting to use with some measures. We're able to use some lean concepts in these data visualization dashboards to understand where the bottlenecks are. So I am proud to announce that RD and the other 450 OPP staff that hadn't been in the system are now in it, so including HED and BPPD and PRD and EFED.

We did have some front-end delays. So this is the intake, the front end of where packages come in. So we weren't talking with a lot of the registrants and associations who are concerned about some of the delays that were occurring for us even receiving the packages.

It had somewhat of an impact, but not really because we have enough work to do in the

current body of work that just because packages aren't making their way to us isn't really slowing any work down. There's certainly enough to do. But we wanted to make sure that we were addressing concerns about the front-end delays.

So we had a couple of shutdowns of our server that handles the front end. We were down for two weeks in June. We were down for another two weeks in July and we were down for two weeks in September. Part of the digital transformation upgrade includes replacing the server to a newer one with updated software and eventually potentially moving that data to the cloud so we have some redundancy so we're not relying on sort of one system, right. We're relying on one server, which is bad, and we're also relying on one person who knows how to do this work.

In terms of lean, it is low-hanging fruit, right. We need to fix that. We need multiple points of entry, multiple windows into the data, and multiple people who know how to move the data. But we didn't really have that. We're working on that.

So we did have a backlog. From June to October, we received 4,700 packages. Three thousand were processed. So it's not like, you know, nothing

was moving, but about 1,600 remain, about 25 PRIA and 75 non-PRIA. And I think the concern from industry was they weren't getting their milestone emails, right? It was sort of like, I submitted something, I haven't heard that it's been received. I know how stressful that can be when you've submitted that back.

So we're continuing to work through the backlog. This is a graphical representation of sort of what that looks like. And you can see the gray bar is the backlog sort of just increasing. We haven't yet sort of bent the curve, as I say, you know, so we'll see what November looks like. I'm hoping that gray bar is slightly lower than October and we've sort of crossed over the hump there.

So front-end delays, the other thing is there's a website you can now look at for registrants to determine whether the front end is experiencing any delays and any sort of work we're doing. So when you click on that link to the slide, you can find some information on that.

All right. And then the last two topics, digital label, we issued a white paper in keeping with our 96 OPP press releases. We're trending in that direction at least for the beginning part of

this year. We have a white paper that we released and the digital labeling folks are going to walk you through that.

And then, lastly, crop tours, we like to get out to visit our counterparts and growers. We received requests from 24 grower groups and registrants to come visit, crop tours; 19 actual invitations were received. We were only able to accommodate 15 crop tours. But based on those 15 crop tours, about 200 OPP staff, including our Deputy Assistant Administrator, I went on a couple of crop tours, our division directors, and multiple staff and management were able to tour the crop tours. And there is just for your -- because any presentation needs pictures. You know, these were some of the pictures that happened throughout the year on the various visits.

So thank you so much for those that sponsored these crop tours. We really find them valuable. The cotton tour, Pact Conference, Florida fruit and vegetable tour, Pesticide Policy Coalition. There's Mike in a short cutoff tee at the AAPSE conference in Savannah, Traverse City, and then Davis PREP where we met with all of our state folks.

So priorities, they're going to be the same for '24. As you can see, there's a lot of work to be done still, but, you know, if you're interested in keeping up-to-date, I would say thank you. For the busy bees in OPP and then -- I thought we had the QR code. Sorry, I guess that one didn't make it in. You can follow us -- if you do a search for Office of Pesticide Programs, press releases, you can go sign-up for any OPP updates. And many of the things that are in this slide, the 96 of them that I sort of went through a smattering of them, are all up there to understand what EPA has been doing for the last year. And we're going to continue with the great work that happened this past year going forward.

We really look forward to your recommendations on things you need to -- that we need to focus on in the coming year and things you'd like to see us talk about in the future.

So thank you for your time. Thanks for listening to my slides. And with that, I will leave it for discussions for the group. I'll hand it over to you guys.

JEFFREY CHANG: Thank you, Ed. Now, the PPDC members will have time to discuss amongst

themselves what was presented. So we'll go with people in the room first, if you could turn your tent card as you're speaking, and then we'll move to people who are virtual. Virtual attendees can raise their hand and you will be called.

So we can start with this side of the room, with Steven's side of the room, and go from there.

FEMALE: I wasn't sure how you were wanting us to indicate that we wanted to speak.

MALE: Put the tent cards up.

FEMALE: Put them up like this.

MALE: Sure.

FEMALE: Thanks so much, Ed, for your presentation. We really appreciate all the updates. I'm just curious, I noticed that there is an upcoming deadline for the contract with the audit. So is that progressing to meet the deadline, and if so, what is the opportunity for stakeholder involvement and providing some feedback into that audit?

ED MESSINA: I'll answer the question, but we weren't going to do Qs and As here. Yeah, it's fine, it's fine. We really want to hear from you, but I'll answer that question because it's an easy

one.

Yeah, so we are progressing with the audit. We've looked at a number of people that can deliver the audit. So the PRIA 5 requires us to undertake an audit of our processes. There's a couple of contractors and people that do this, so we've been reaching out.

In terms of meeting the actual deadline, you know, I think we're going to come close, but it may -- you know, it's not going to be far delayed because folks are working on it, but we may not meet the actual deadline. It might be like a month or two away because we have to issue a contract and, you know, get all that paperwork done. But it's been actively worked on.

And in terms of input, I think once we establish the person that is there, I think we would recommend that, you know, they reach out to stakeholders and make that part of the -- what's called the technical assistance in the contract, or the TA.

GARY PRESCHER: Well, the corn growers are very appreciative of the EPA for convening the Scientific Advisory Panel to review the -- several studies in question around the Atrazine registration process

and the aquatic plant community. So I just wanted to really convey our thanks for taking a good look at that in those studies. We believe that the Scientific Advisory Panel is a good way to go about your work and really appreciate that and look forward to the EPA's upcoming decision on Atrazine.

JEFFREY CHANG: Charlotte.

CHARLOTTE SANSON: Thanks. For the comprehensive overview, it was sort of -- you know, a drive-by really fast, showing everything you guys have accomplished. And I think the registrants would like to acknowledge the work that's been done to implement the PRIA 5 obligations, and transitioning to Salesforce ahead of schedule is great and we look forward to the continued implementation on that and how we can track the progress of submissions and that sort of thing.

So going back to what you were talking about, you know, the backlog and the shutdown of the servers that happened, you know, the unfortunate activity that happened there, so it kind of made me think what would happen in the event of a government shutdown. Now, I know that the 15th -- the end of the -- you know, this week is critical for that. It doesn't appear that's going to happen. But, you

know, it could happen, of course, sometime in the future, the next time this comes up.

So just curious if you happen to have thoughts about how that would look in having maximum communication with registrants in the event of a shutdown and -- yeah, because when we submit a data package into -- through the portal, we get a confirmation with a CDX number -- not to get into the weeds on this, but it gives us the impression that it's going through the system and it appears that's really not confirming, okay, we've got it and it's going -- you know, it's being processed, it's going through the channels, if you understand what I'm saying. So maybe if you could comment to that. I would appreciate. Thanks.

ED MESSINA: So when it comes to shut downs, I can't. The messaging is handled at the highest levels of government, right. It's the White House Communications. What I can say is, in the past, we have seen impacts. I think that's when we first developed our first backlog, right, was the last time that happened.

PRIA 5 asks us to Consider our footprint if that does happen. We have. And I can't say much more because we're not even allowed to communicate

with staff about what our plan is. So I couldn't even talk to industry about what our plan is until that event happens and then we implement a plan to address that shutdown.

The other thing I'll add is, depending on the time of year, we may not have funds, because we have some PRIA funding, but there is nobody who's paid solely out of that fund. It's a mix of funds and appropriations. As I noted, it's a third of the money. If it's at the end of the year, like we are now, there may not be -- you know, it could be a couple of weeks or something before we run out of money, because we're only using a third of the money to pay for whatever we're paying to keep our footprint open. So that's the other calculation we need to do, right?

So, yeah, there would be an impact. We understand what PRIA 5 says. We'll take steps to maximize that to the extent we can, given the level of resources we have and given the sort of footprint for staff that are, you know, potentially, if that day should come, called upon to access those fees.

I will -- the other thing I can say is, I am excepted during that time, so I will be working if there is a shutdown. So you can call me about

where your package is. I will be one of the few people in the building who will reporting to work.

CHARLOTTE SANSON: Thanks. If I could just have a brief follow-up. So PRIA 5 does provide some funding for some activities in OPP in the event of a shutdown. Other than yourself, which other groups would that include or is that yet to be decided or determined?

ED MESSINA: Maybe I'll answer the question this way. So PRIA 5's provision says that we can access fees during a shutdown. The IT folks are paid out of that fund. Does that answer your question?

Not saying what would happen, but I think that was your question.

CHARLOTTE SANSON: Yeah, I guess I was under the understanding that it provides -- PRIA money is provided to OPP through the shutdown and so I think you clarified where that would go. I just --

ED MESSINA: Would we still be able to collect during the shutdown is the question, yes, we should be.

CHARLOTTE SANSON: Okay. It seems like there was some protection, if I can use that word --

I'm not really sure I'm using the right word, but, you know, that activities -- some activities and work on OPP then can continue, and I just didn't know what work that was.

ED MESSINA: Would the IT development still continue? Is that your question?

CHARLOTTE SANSON: Or anybody besides yourself? I think you made it clear it would be yourself and the IT people.

ED MESSINA: Yeah, I'll be there. I'm not really that good at coding. I used to do it back in the day, but yeah.

CHARLOTTE SANSON: Okay.

ED MESSINA: So, yeah, we would be able to continue to collect fees. PRIA 5 says that we can access the money during a shutdown. If somebody had been charging to that account, it is possible they could access that account and continue working and it is possible that some of the IT folks also have charged that account in the past and would be available for IT, assuming our plan called for having people come back to work during a shutdown if there was one.

Thanks.

JEFFREY CHANG: Becca?

BECCA BERKEY: I want to echo the thanks for all of that information. That was a lot to take in and absorb.

So one of the things -- and this might be more of a question and it might be something that's coming up later, but one thing I'm trying to understand, based on kind of the report-out of the previous PPDC meetings, specifically the working groups, so I was looking at the website and the website still lists the farmworker and clinicians working group and then, you know, I think you gave the update that there were three.

And then later in the update toward the end in the environmental justice section, there was like a brief reference in one of the bullet points around the farmworker and clinician training workgroup implementation. So again, this might come up later, but that's something that I would be interested in hearing more about, kind of what's being done with those recommendations and if that is or is not still an active workgroup and kind of what happened with that work that was presented, I think, in May of '22.

ED MESSINA: Yes. And Mily can put her card up because she can answer better than I.

So when the farmworker-clinician workgroup presented to the full PPDC and those recommendations were adopted, the workgroup asked to be sort of disbanded and so they were. I think there was work associated with the NEJAC, too, that continued, and I mentioned some of those other activities. And then we did report out at the last PPDC some of the activities that had occurred based on the recommendations from that workgroup. We're not done, but there is some materials and the transcript I think goes through that.

And then I'll let Michelle or Jeffery -- so we probably need to update the website specifically to remove that particular workgroup and I'll let Mily and others who were on that workgroup chime in and have a discussion around it. Great question.

MILY TREVINO-SAUCEDA: Well, there is still a lot of work to do. I did have a question more on the Paraquat statement that was done. That we're not clear that it does cause -- causes Parkinson's disease. I will always be very apprehended with just the use of pesticides, not just the misuse of pesticides. But my comment here is so many countries have banned Paraquat and we're

always trying to find reasons to continue using Paraquat in the United States. It is very interesting for us that work in the fields. Again, we're more concerned because there is more people getting Parkinson's disease. And so I just want to give that comment.

And for the working group, I'm not necessarily sure if we should just stop the farmworker working group. There was a lot of work done and we really appreciate all the time that was spent. At the same time, we're more worried about how the -- the implementation, the monitoring, everything else. We can have a lot of information written, but the reality of what is going on in the fields sometimes it's kind of different.

And so I hear there's been a lot of work from EPA at this point in time, these last years even more, and I really appreciate that. At the same time, it's -- for us what counts more is what's really happening in the fields. I just wanted to give that comment.

JEFFREY CHANG: Thank you.

Before we continue, if you could just introduce yourself again quickly before you speak, that would be great.

We'll start at the very end with --

DAWN GOUGE: Thank you. Dawn Gouge, University of Arizona.

Ed, thank you very much, first of all. That was just a whirlwind tour and I was scribbling notes and I have a million questions. I'll try to restrict them to a reasonable number.

First of all, as I'm sure everybody is aware, there was an awful lot of confusion and still is an awful lot of confusion around the use of dog collars, which dog collars within -- that fall within the OP active ingredients or OP-containing dog collars versus Seresto, which has a neonicotinoid and a pyrethroid.

Can you help us work through -- navigate where EPA is on both of those things as two separate issues regarding the use of dog collars and what's ongoing? Thank you.

ED MESSINA: So are you interested in our work on Seresto and TCVP separately?

DAWN GOUGE: Yes.

ED MESSINA: Yeah.

DAWN GOUGE: Thank you.

ED MESSINA: So I would point you to the website updates and the OPP updates that talked

about the analysis we did for both of those pet collars and pet products.

In addition, if you haven't seen there, we put out the white paper in working with FDA and we just recently, a couple of days ago, another OPP update, we put out a Q&A document that asks questions about the OPP white paper in relation to FDA and then answers those questions. So I would point you to the OPP update around that. It's called the Q&A document related to EPA's white paper on pet products.

DAWN GOUGE: Thank you. There's a lot of sites that conflate the two together, which -- not EPA sites?

ED MESSINA: Yes.

DAWN GOUGE: Okay. Thank you.

ED MESSINA: Understood. Thanks.

JEFFREY CHANG: Nathan?

NATHAN DONLEY: Hi, Nathan Donley, Center for Biological Diversity. Yeah, thanks for your presentation, Ed. And I really appreciate the transparency about how much money comes from fees and how much comes from appropriations because that information really actually hasn't been made publicly available, at least to the extent that I've

found, and having that here and being transparent about that, I appreciate it.

I also appreciate the transparency with putting pesticide incidents up on a publicly available database. That is just something that's really going to help researchers formulate research questions better and also allow the public to, you know, sort of identify harms associated with pesticides they may have been exposed to.

And I want to touch on Paraquat a little bit and, you know, add some to what Mily said, because as EPA is reassessing Paraquat and its harms to people and the environment, there's a lot of worry from many of us that what's going to come from this ultimately is a few half measures that don't really do a darn thing for communities on the ground.

And I just want to say, you know, of the four largest agricultural economies in the world, the U.S. is the only one that still allows Paraquat to be used. The EU has banned it, China has banned it, Brazil has banned it, and the use has doubled here in the last ten years and it's one of the most widely used pesticides in the U.S. We use 12 million pounds a year. For the most acutely lethal

pesticide in the world to be one of the most widely used pesticides in this country is, quite frankly, a national embarrassment, I feel.

Paraquat kills people every single year in this country and most of those deaths, the majority are accidental, they're not intentional. And I'm glad to hear that deaths are coming down because mitigation is put in place, but, you know, you can't eliminate that risk with something this toxic. And many more people develop neurodegenerative disease, like Parkinson's, based off of their chronic exposures throughout their life. And I know EPA disagrees with me on that, but the scientific literature is very robust here.

And so the European Union, China, and Brazil, they have all maintained high agricultural productivity despite banning Paraquat, and so can we. But it requires that EPA push back on the misinformation that somehow protecting people from Paraquat is some somehow going to destroy agriculture or cause the sky to fall. You know, that same rhetoric was used when EPA banned DDT and Aldrin and Carbofuran and agriculture is still here. The sky hasn't fallen. So, you know, it just goes to show that we can get rid of the worst of the

worst pesticides in this country and still maintain high agricultural productivity and protect people in the process.

So I just ask that as you are going through the process of reevaluating Paraquat, just please prioritize communities and prioritize people and, quite frankly, let's just follow the lead of the rest of the world here and get rid of Paraquat once and for all. That's all.

JEFFREY CHANG: Joe?

JOE GRZYWACZ: I'm not going to be able to be as eloquent as Nate because I don't have all those facts and figures, but I do also want to echo the point that Mily had began about Paraquat, and that is, I totally appreciate the value of following the sciences. I didn't realize that was one of the pillars of EPA's original founding.

But we also have to remember that evidence comes in all sorts of different forms and the world is a fairly complex place where when we limit it to one particular outcome and the very challenging task of being able to actually do good monitoring of actual pesticide exposure day in and day out, that's just a really tough task.

And so I just really echo Mily's comments

and Nathan's comments about, you know, sometimes the evidence comes from not the empirical papers, but what do our peers and our colleagues around the world, what do they have to say about that and what do they know that we don't know or what are they considering that we're not considering in terms of being able to make those important kinds of decisions.

JEFFREY CHANG: And the last comment, Alexis? Last two, sorry.

ALEXIS TEMKIN: Yeah, thank you. Alexis Temkin from the environmental working group.

I wanted to echo all the comments on Paraquat as well, and I also just wanted to bring to the attention of the group -- I know, Ed, in your presentation, you had mentioned the actions on DCPA and the original proposed cancellations in response to a lack of data being submitted by the registrant, which I think was actually a data request for about ten years, that that data was missing, and then the cancellation was suspended because the data was provided.

But, you know, one of those 96 press releases that EPA did was also one that was quite shocking, I think, and quite out of the ordinary,

which was when some of that data came in, particularly data looking at comparative thyroid toxicity in a comparative thyroid assay, it was so alarming and so concerning that EPA actually released the draft risk assessments for the residential and occupational exposure assessment ahead of the schedule to really alert people -- and particularly pregnant people -- farmworkers who might be exposed on the job during work with DCPA, that this is -- it was a really concerning exposure and a really concerning toxic pesticide.

So, I mean, I would love to know -- I know it's not a Q&A, but like the next actions for DCPA from EPA and, I guess, also just to really highlight that ten-year data gap on waiting for data to come in, data showing extreme toxicity and just really sort of the failure of that system or, you know, real risks and protections that were not happening for some of the people using this pesticide. So I just wanted to flag that and comment on it for the group.

JEFFREY CHANG: Mayra?

MAYRA REITER: Mayra Reiter with Farmworker Justice. I would like to echo the comments on DCPA and also what Mily, Nathan, and Joe

have raised regarding Paraquat. And what I'm going to say doesn't apply just to Paraquat, but, you know, go into any field, go any place where you find farmworkers and you ask them, are they getting the PPE that they need, are growers observing reentry intervals, are they complying with all the different mitigation measures that are put in place for pesticides, and the answer is usually not. Like those testimonies are out there.

And we know that the label is the law, but many times that law is not being followed. And we can have the best mitigation measures in the world in writing, and if it is not being applied, it's not going to protect anyone, and that's a real problem. It is something that when looking at these highly toxic pesticides needs to be taken into account.

And I know that EPA is bound by certain policies and procedures, but this is something that really cannot be ignored because what growers are being told to do, a lot of times is not really happening in the fields.

Thank you.

MALE: So over the last several PPDC meetings, this talk has come up, and I'm not arguing that it is happening, but I would like to provide

some guidance, particularly regarding reentry intervals. The EPA makes the rules, and in most states, the state lead agency enforces them. And I have yet to work in a state where the state lead agency isn't highly motivated to punish violators of the law.

So I really think that a lot of these rules are in place and when they're not being followed, they need to be enforced. So I just wanted to add that.

ED MESSINA: Anybody else?

(No response.)

ED MESSINA: Okay. Well, thanks for the lively discussion and for listening to our presentation. We'll move to the next items on the agenda.

JEFFREY CHANG: Thank you. We'll take a quick break for five minutes and return for EDSP.

(Brief break taken.)

(Section appears to be missing for the beginning of Endocrine Disruptor Screening Program Update. Section below is from CART provider.)

If we can get back to our seats for the next session.

Hi, everyone, please come back to your

seats so we can start the next session. Thank you.

Welcome back and we'll updates from Pesticide Programs Director on the endocrine Disruptor.

ENDOCRINE DISRUPTOR SCREENING PROGRAM UPDATE

JAKE LI: Thank you and good morning check the mic is working and turned on. I'm excited to give you an update. It is something that our team across multiple offices at EPA that's within OPP that's within our general council office in the front office have been working really hard on over the last year and we think we've been making a lot of progress in light of where we've stood for the last one to two decades, and there are really challenges how we implement it and we look forward to talking about in new data and adopting new strategies and we're doing a lot in today's briefing on the announcements from October and a few weeks ago about new strategies, and what I want to do today is provide some preview background to what it is and our obligations and provide overview of the announcement itself.

So I think one question for those who may not be familiar with the topic why did we issue this big press release and driver for all that and it

comes down to a --

(Recording starts again.)

JAKE LI: -- combination of external requests, as well as internal program needs, and four of them are actually up on the slide.

Many of you know that, in 2021, we received this Office of Inspector General report that concluded we had been making limited progress in assessing pesticides under the EDSP. And then last December, we also received a lawsuit from environmental public health groups relating to the EDSP.

There's also been a number of longstanding questions both from outside stakeholders, as well as internally, about the implementation of the EDSP, so we thought it was important to clarify at least some of those questions. And then, finally, it's been our longstanding policy to address EDSP for human health as part of registration review final actions.

So we've got multiple drivers for why we wanted to clarify and develop a path forward on implementation of the EDSP.

Now, in terms of some background -- let me actually start with what the FFDCA, the Food, Drug, and Cosmetic Act, actually requires of EPA. The law

actually has multiple requirements, but there are four that are relevant to today's presentation. The first one is actually to create a screening program. We did that by creating the EDSP in the late '90s.

The second is for us at EPA to provide for the testing of all pesticides and to issue test orders. All pesticides actually include active ingredients, as well as inert ingredients. So there are actually a large universe or chemicals that are covered by the EDSP.

A third really important requirement is that we are required to protect public health against endocrine effects, and this is under a provision, 408(p)(6). I'm mentioning this because I'm going to return several times to this (p)(6) requirement. It's actually really important step of how we want to provide transparency and clarity moving forward.

And then a fourth relevant part is we can actually exempt chemicals from the EDSP. We've done that over the years and that's something that the FFDCA sort of allows us to do.

Okay. So that was the legal foundation in a nutshell. Let me provide the main scientific foundation that we created in the late '90s for the

EDSP. And basically, it's a two-tier framework for testing under the EDSP.

The first here, which was actually what we call screening, focuses on this question of is this a potential -- and potential is the operative word, right -- for a chemical to interact with the estrogen, androgen, and thyroid systems. And as part of that, we had actually developed and identified 11 assays, 6 of which are in vivo, meaning in living, and 5 of which are in vitro, meaning outside of living organisms. We also called these new approach methods. So they could be computational methods and so forth.

And it was really exciting that earlier this year, some of you might remember, we released a draft white paper for public comment that identified alternatives to four of these traditional assays using new approach methods. So that's Tier 1 screening.

Again, the question is, is there a potential to interact with the E, A, or T system. If the answer is yes, then we move to Tier 2 testing, which is to identify, characterize, and then to quantify what are those adverse effects for the risk assessment, right.

So this is how the two-tier structure was set up. And there have been a number of questions, both internally and externally, about how we implement this two-tier structure, about how we implement those legal obligations I showed in a prior slide. For example, what if we have adequate Tier 2 data, are we going back and ask for Tier 1 data, and if so, what is the point of getting that Tier 1 data, right?

Another question is, well, what are the FIFRA data we get that could satisfy EDSP requirements? There's actually quite a bit of overlap between what we get under FIFRA and this two-tier framework. What is that overlap?

A third question could be how and when would we actually issue test orders for any outstanding endocrine data?

A fourth question could be, well, when are we going to make this 408(p)(6) decision to protect public health that I showed in the last slide?

And then a fifth question could be, well, what is the priority of human health versus wildlife, right?

So these are just -- again, it's not a comprehensive list of questions, but these are some

questions that we've heard from stakeholders, we've heard internally, and that we thought were important to begin clarifying as part of these announcements, or the announcement rather from a few weeks ago.

So now, I'm moving on to the scope of these new strategies. I think a really important thing is that we can tackle all of it at once, right. There are a large number of chemicals under the EDSP and it's a lot like how we think about our Endangered Species Act work. This is, under the ESA, decades and decades of challenges that we're trying to solve really quickly. We can't solve all of it at once. So we have to prioritize what are the actions, what are the chemicals that we think deliver the greatest return on investment, deliver the greatest impact.

So we did something very similar for EDSP basically meeting every single week this year before the roll-out of this announcement. And so what you see up on the screen here would be the scope of these initial strategies. The one thing I want to say is that this strategy is not the end-all/be-all for the EDSP. This is really just our starting point for what we think we can realistically accomplish over the next few years, given our

current budget, given our current processes, and other factors.

So the scope here is that for these new strategies, we're going to focus on new active ingredient registrations, as well as registration review of conventional active ingredients. So we're not addressing the nonconventionals yet. And we're going to prioritize the human health components while we continue doing what we've been doing on wildlife.

One reason for the focus on human health is that that's really the focus of the FFDCA when it references public health. So we really want to focus on that legal obligation first.

So what we released four weeks ago are four documents. They are quite lengthy if you add them all together. So what I want to do in the next few minutes is to provide a really quick overview of what are in those documents.

You can think of the overarching document as the Federal Register Notice. Those are the near-term strategies. And in that document we describe the three strategies, we provide background on the EDSP, and we started a 60-day public comment period for data for certain groups of chemicals that I'll

talk about later.

And then to support that Federal Register Notice, we also issued three documents. The science paper is actually really, really important. It's a technical read, but it's an incredibly important one because that is the document where we explain when and how we would use FIFRA data to address some of the EDSP data. In other words, when I said earlier about what is that overlap between the FIFRA data that we get and then the EDSP Tier 1 and Tier 2 data, that's what the science paper begins to address, in particular, for the estrogen and androgen systems.

The second document -- supplemental document is a list of the conventional active ingredients that we have in registration review, and the point of this document is to identify really quickly what are the types of endocrine data we have for those 400-plus chemicals and what are additional data that we may need in light of what we have and what we don't have. So that document lists the individual active ingredients for these registration review chemicals.

And then, finally, we describe the EDSP status of all 50 List 1 active ingredients. I'll

get to that in a little bit, but that's also an important milestone for the program.

So our overall approach to these new strategies is that we want to address the EDSP, both the data as well as the 408(p)(6) decision needs through the FIFRA process as much as possible. And the reason is that our FIFRA process is one that is well established. We have timelines. It's just a good way for us to pull in the EDSP component so that EDSP isn't hanging out there, but rather incorporated into the FIFRA process.

So how do we do that? Well, one important thing is to determine what are the endocrine data we already have. In particular, what did we already get through the FIFRA that helps meet some of these EDSP data needs. And, again, that's what the white paper really dives into, the science paper. And then after that, we want to determine what are additional endocrine data that we might need for new active ingredient registrations or registration review. And then when we determine we have enough data for the human estrogen, androgen, and thyroid systems, then we are also committing, as part of this Federal Register Notice, to make a 408(p)(6) decision on protecting public health.

So we have not done that really consistently at all in the past and that's left open a lot of questions around, well, again, when is EPA going to make these 408(p)(6) decisions, when does it provide closure under the FFDCA for each of these pesticide active ingredients. So we're committing to doing that as a matter of policy so that it's clear when do we have enough data and we can actually make those decisions.

So let me quickly go over the three strategies. The first one is actually fairly straightforward. For now, it's to prioritize the human endocrine effect assessments as part of our FIFRA process. We're not really changing anything about wildlife. We're not walking back on wildlife. We're simply maintaining our current approach for wildlife while we invest and focus on getting the human health component really up to speed.

And, again, one reason is what I mentioned earlier. The FFDCA really focuses on the human health.

A second part is that we're doing a lot of work under the ESA that addressed and reduces exposure to wildlife. So we think, in the meantime, that can help reduce some of the potential effects

on wildlife.

The second strategy is really focused on using the existing endocrine data to determine whether more endocrine data are needed for both the FIFRA and the FFDCA decisions. So that's really important. It's not just about using the EDSP data to make the FIFRA unreasonable adverse effect determination, but also to make that FFDCA 408(p)(6) decision, which we are legally required to do and that we really haven't been doing consistently in the past.

So the way to think about the endocrine data is we actually break it into two categories. The first one would be estrogen and androgen. They typically travel together. And without getting into the technical details, the key part is that if we can get an updated rodent reproductive study, that basically is going to be dispositive or extremely informative for the human estrogen and androgen endpoints. We realize those studies can be very expensive. They're very animal-intensive and they can take quite a while to perform.

So in the science paper, we also explained what may be some other data that we can use in the meantime that might allow us to make the estrogen

and androgen findings even if we don't have these updated rodent reproductive studies. So that's, in a nutshell, the estrogen and androgen sort of system.

For thyroid, basically, we said in the Federal Register Notice, we're maintaining our current approach, but that we are expected to convene a FIFRA SAP in 2025, to review our current approach for thyroid. And after the SAP, we may adjust or update our current approach.

The reason is that the science on thyroid is moving a lot faster and there's just more going on there than for estrogen and androgen, and so we thought it was important to basically do peer review of the thyroid approach.

And then the third strategy here is that we want to integrate the data requirements for the endocrine system into the registration review process, starting with the highest priority chemicals that we identified using this framework here. I don't have time to go through every part of the framework, but this is in the science document and I think the gist here is that it focuses on the estrogen and androgen system because, again, that's what we're really trying to make as much progress on

right away. And it really starts with this question of, do we have this updated rodent reproductive study. If not, then we go through different parts of this flowchart on what are the implications of not having that study and what are other data that we have or may not have.

Okay. So I already talked a bit about the science paper. Again, for those who are interested in the technical components of this, I highly recommend reading this document because it describes how we crosswalked the FIFRA data we get with the EDSP Tier 1 and 2 data.

In other words, when would FIFRA data be equivalent to or identical to the EDSP data? We just haven't been clear on these questions in the past, and our science team spent a lot of time writing this paper to provide everyone with that clarity.

The second document would be this list of conventional active ingredients. This is what I talked about earlier. The main takeaway here is that when we request data on what are the 30 high-priority chemicals that I'll talk about later, those 30 chemicals are actually identified in this document and only this document.

And then this document also identifies which are the conventional registration review active ingredients for which we actually have adequate estrogen and androgen data. The sort of punch line is that's for about 20 percent of the 400, you know, chemicals. And then for the other 80 percent, for which we don't have the updated rodent reproductive study, we describe, well, what information do we have and how did we prioritize those chemicals for getting potential additional endocrine data, and we divide it into three groups.

Most important, is for group one. Those are 30 chemicals for which existing data show some activity in either estrogen receptor or the androgen receptor pathway models, and as a result, we are going to issue FIFRA data call-ins in the spring of 2024 to get those data.

And then, finally, the third supplemental document is something called List 1. We established List 1, I think, around 2009, and at the time, it was basically a list of high-priority active ingredients and inert ingredients for which we wanted to do testing. This one has been sort of hanging out there for a number of years and the OIG report basically said we needed to explain what is

the status of List 1.

So we spent some time going through all of the remaining 52 List 1 chemicals and basically we concluded that we have enough information to review potential human endocrine effects for all of those chemicals and then we also determined what are the status of the wildlife data for those 52 chemicals.

So that's also worth a quick read if you want to know how everything shook out.

And with that, I think I'm probably a little over time and I'll stop. So thank you

ED MESSINA: Thanks, Jake.

Discussion?

JEFFREY CHANG: We will move on to discussion. Please turn your tent card if you have any comments.

FEMALE: Thank you, Jake. And I think we're really happy to see that EPA is moving forward with the EDSP. You know, we gave comments on the science white paper. I think these strategies offer a really important way to use the data that you already have and identify the chemicals moving forward. I think where we have some questions is around these some of these dual use and what does that mean for the dual use chemistries and kind of

what -- with the data call-ins, how is that going to work with kind of the way those registration review decisions are done separately for the conventional and the antimicrobial pesticides. So would it be one determination or are you making it under the conventional that would apply to the antimicrobial.

So, you know, you don't have to answer. I know it's not a Q&A, but there are just some of the things that we're thinking about as we're looking at both the scientific approaches and the practical approaches.

JAKE LI: Great, thank you. I'll just say real quickly, as we dive into the 30, we will provide clarity on those exact questions.

MALE: I know -- well, first of all, thanks, Jake. I really appreciate all the information. I know it's not supposed to be Q&A, so I won't form it as a question, I'll form it as a suggestion. If you're not already, when you're doing your evaluations of endocrine disrupting properties, at least I would encourage you to consider the synergistic effect of multiple compounds rather than just looking at an individual AI's endocrine disrupting potential, what impact would it -- exposure to multiple sources, if you

understand what I'm saying.

JEFFREY CHANG: Charlotte?

CHARLOTTE SANSON: So, yeah, thanks, Jake. And I know it's not Q&A, but just a comment. You know, I think as registrants we are committed to advocating for resources where OPP needs to work on the science. So I think it's just a concern on our end on how this will be resourced knowing, you know, with ESA and then EDSP and additional work that has to be done to complete registration reviews, that this is going to be folded into registration review, we understand that, but we just have a concern on the resource side.

ALEXIS TEMKIN: Yeah, Alexis Temkin with the Environmental Working Group. I just wanted to say thank you for this update. Truly, like it has been a long time coming. I know I think I've asked about EDSP at the other PPDC meetings. So it is really great to see and exciting to see the notice in the Federal Register in October.

I haven't read the documents yet. I'm looking forward to it, but I guess perhaps similar to Keith's suggestion -- just making suggestions that I know that a lot of -- also when this recommendations for EDSP I think you mentioned were

started in the ‘90s. There also has been a lot of development and evolution in our understanding of endocrine disrupting properties over the last -- I don’t know -- 20 years or so, right.

With the key characteristics of endocrine disrupting chemicals, there are also NAMs that are potentially available to look at those and not just focus maybe on the EAT pathways, but a lot of data has been generated. To your point, there is a lot of data out there. So I would also encourage, yeah, I think using the existing FIFRA data is worthwhile, but the peer review. There’s a lot of people working on new approach methodologies on these high throughput screening. There’s just a lot of data out there.

So I would just encourage while maintaining and understanding that there’s obviously a lot of work to do and resources, just to be as thorough as possible with data collections and, you know, where you’re sourcing information and things like that. And I’m excited to comment. So thank you.

MALE: I think this is a really exciting use of data that’s coming in to be helpful, so I really am enthusiastic about the work that you’re

doing. The concern that I have that's already been mentioned in different ways -- I'm going to contextualize it a little bit, and we might all remember that little thing we called the OxyContin epidemic that was perpetuated by a paper that was directed toward something entirely different to answer a very different question. But, yet, people were able to get a hold of it and create what we now know as one of the worst pandemics in history.

I just think it's really important, picking up on the last comment, about making sure that whatever results you put out from this are clear that these are the boundaries of this science. Just because it doesn't -- you know, we're not seeing anything here does not mean that there is no other potential consequences because it seems to me that the science in the depths at least that I've been reading is sometimes it doesn't show up for two or three generations of offspring before it starts creating difficulties.

And so I just fear that people can seize on some perhaps crude or early results and say, see, we've got no problem, but, in fact, you just simply didn't have the chance to go deep enough. So I just think there needs to be some care in the handling of

that.

JEFFREY CHANG: Great. Thank you.

That concludes our first morning session. We are going to break for an hour and 15-minute lunch, but before we do, I need to give you some Zoom instructions.

During lunch, please mute your mic. Do not click the leave meeting button. In other words, stay in the Zoom session on mute. This will ensure that everyone gets back into the meeting easily after lunch. For those in person, please plan to be back at the east entrance security between 1:00 and 1:15 to get through security.

With that, let’s break for lunch and come back a few minutes before 1:15 so that we can start promptly at 1:30.

(Break for lunch.)

Press is here -- Paraquat discussion

We’re in a public meeting so they can film you. If you talk to them nicely may be -- they will -- (laughing).

PESTICIDE LABEL REFORM WORKGROUP UPDATE

LISA DREILINGER: -- tough, so I appreciate the attempt and -- so welcome, everybody, post-lunch. We will try to keep it lively so

everybody stays awake and doesn't go into their food coma.

Thank you to the workgroup. There are a lot of members that are in the room, so I just want to say I appreciate the support and -- we can go to the next slide where everybody who is in the workgroup is listed on this slide. It is the most engaged, passionate group that I have worked with on the PPDC so far and that is saying a lot because I am also a member of the EPIC and that is an incredibly engaged group of people.

So I just want to say thank you to my co-chairs, Mano, who is not able to be here today, and to Michelle, thank goodness for her.

So the group is really well rounded. This is just a summary of -- you know, visualized all the different places and all the different backgrounds that the group of people come from.

I don't know if you noticed on the last slide, but there are almost 40 people in this group and to have it be so well-rounded has been key to the successes so far. So you can see it's a mixed group of industry from trade groups, government, state, NGOs and, of course, consultants. So it is a well-rounded group of individuals.

So we just wanted to share the charge questions, and to do that, obviously, there are a lot of words on this slide. But, overall, the goal is to develop recommendations to support the improvement and efficiency of the submission review and approval process of EPA.

The goal is to help everybody. So the EPA to work more efficiently, the industry to deliver innovation, and to support the end user who actually gets to use this product and make sure it is done in the safest, most effective way.

We want to ensure that there is quality and consistency of the reviews and the labeling and, of course, if it doesn't get adopted by industry then we weren't successful in our plight.

So the group definitely has two charge questions, and we've kind of gone in circles. So bear with me. I'm going to talk about the how in a second, but I'm going to start with the what. We broke into two groups, submission and approval and technology and then content.

So the first is the technology. I will just share that a lot of the goals for technology, while the long-term right now is a little bit challenging, but the short term to use the tools

that we already have for more maximizing efficiency of label submissions, including comparison tools in the e-CSF portal and that is really going to be focused on Salesforce. The long-term might also be focused on Salesforce, but the goal of the long-term is to be able to take all of the data that is digitized and for it to go together, meaning there's already an e-CSF portal and we're hoping to get labels -- structured labeling and to have the label be electronic.

So how do we get the label to communicate with the e-CSF that also will communicate with risk assessment so that there is one source of truth that everybody is working off of? So the charge question is really about an idealistic view of what electronic data looks like.

Charge question number 2 is about content and accessibility. We wanted to make sure that we took into account diversity, equity inclusion, and accessibility for all. The principles in mind are, of course, about the end user and how we can ensure human health and the environmental safety of the use of products.

So the EPA review manual and the PR notices and, obviously, the regulations are a source

of the content. But how do we ensure systematic reviews by the agency on an equitable basis that might -- it will help, obviously, if the label that is submitted is structured in the same way. So in the short term, we're talking about structured label; in the long term, we're, obviously, going to combine charge questions 1 and 2 to have structured labeling that, of course, would be submitted electronically and then a single source of truth.

I'm sorry, I forgot to mention what we have in the parking lot. So, obviously, there is a lot of -- the label includes a lot of information. So we had to define what we were going to attempt to comment on and what we were going to agree to hold in the parking lot until a later time. Understanding that we only have a year for right now under these charge questions and that we wanted to make as much progress as possible, we agreed that we were not to discuss display issues, the end user experience, or accessibility.

And for the time being, in the structured labeling content, we were not going to discuss directions for use. The reason being for the directions for use is that each product really is unique on an individual basis. And we were afraid

if we attempted the directions for use right now, that we would end up down a rabbit hole and not making progress anywhere else. So the goal is, of course, to come back to directions for use, but for right now it is in the parking lot.

So the what is just as important as the how. How do you operate? So like I started, this group is one of the most engaged passionate groups I have ever worked with. They are completely committed. We have been meeting once a week for an hour where we also have a team's site. So I wanted to just share that the commitment of this group is why we have made the progress we have made in six months and there is a lot of time going into this issue. So I just wanted to share.

What everyone has been waiting for, the recommendations that we have as of today, we are six months in to the one-year, for now, assignment. So big picture, everybody agrees that electronic labeling is necessary to optimize the label process. In order for us to effectively share information, make submissions, allow the agency to review and get approvals, we need electronic labeling.

Very interesting enough, we found out that, although we all agree on the big picture and

what is necessary, it turns out we were using different words, but meaning the same thing. So we did have to spend time in the beginning level-setting on the words that we were going to use because we did go in circles for a little, but it was with the best of intentions. Everybody was speaking in agreement, but not using the same words. So there are certain words that we agreed to use like data elements for how we would be addressing the content of the label.

We then optimized this process into short-term goals and long-term goals. So the first goal was to create a voluntary template. With a voluntary template, we could create a structure that would provide the EPA a similar label every time a submission was made.

So I just want to give a shout-out to Hannah and Anastasia from the CDC because we had a starting point with their voluntary label template and that really helped establish the momentum that we had in order to go forward and create the structured labeling.

So the first step was to establish what the data elements were, where the data element might go on the label, the reference point for where it

came from, and then whether or not it was required on every label or only some labels.

The next thing we did was confirm that ideally we would have one single template. The reason being is that, of course, once we create this template, we have to support the template. And if you are supporting and updating five templates as opposed to one template, obviously, it's most efficient if we could just update one template. So that was the next step.

Mano is not here, but he has taken a lead with the Conventional and Registration Division in identifying the label data elements that were missing from the original template. So a special shout-out to Mano as well.

The next was once we, like I said, created the template, we confirmed what source information, we confirmed which of the data elements would be perfect for a pick list. And what we mean by pick list is that a user and a registrant would always have the opportunity to add in free text. We're not looking to eliminate the ability for a user to do that. What we are looking to do is if a user would prefer to take language that the EPA, under the right circumstances, with the right data to support

the registration, would be supported and already sort of pre-aligned and pre-approved. So the pick list would be a pre-accepted language that if we chose to use would speed up the process.

So we've gone through and identified the data elements and then whether or not a pick list would be appropriate. So while we're not showing the structured template today -- and it's something we can do at the next meeting -- we have a really good start at a structured label.

So, of course, the idea is to maximize resources and maximize EPA's resources. As shared this morning, there is a lot of work that is flowing through the EPA and we want to make sure that with the resources that we have, we get the most out of them.

So I think there are some places where placeholders might be appropriate, so websites, QR codes, which are not necessarily enforceable, but are causing a lot of submissions over and over and over and over again that are not always adding value when the EPA is reviewing them. Because in reality, a website and a QR code behind it can change and, unfortunately, that really becomes -- it becomes important for what goes on the final product label

and then it becomes an enforcement issue.

So we're trying to identify places where the agency is spending time and resources that are not actually adding value and protecting public health.

The next is recommending, obviously, a compare tool, and if the EPA is using the compare tool and can confirm that only very specific changes were made, can we eliminate the de novo reviews on registrations that have recently gone through the process. And what that means is that you could spend less time on a review by not needing to review -- most master labels are not less than 12 pages, some are more than 100. So when a de novo review happens, you're spending so much time and resource on that review, right?

So if you can confirm that only a very small change was made, use the compare tool only that change was made and that using the compare tool, you know, trust but verify, only that change was made, then it would save a lot of time and resource.

So that pretty much sums up the short-term structured label, but, of course, we're looking at the long-term and what digitalization looks like.

So we don't know what system the EPA is going to potentially use. We think it is going to be Salesforce. And we have been working with the EPA, but to date the technology has been mostly in the parking lot, because we don't want to spend -- we wanted to come out with a win so we focused on a place where we could deliver. I think when we get to the next steps, you'll see where our focus is going to be moving forward on the technology.

Of course, there is already an e-CSF tool. So how do we use the e-CSF tool to help populate a label that will help lead to a risk assessment and have a single source of truth?

So what we really want to do is line up all of the digitalization that is happening at the EPA to be the most efficient and then, of course, you know, big picture could even be how do you take the information that is going from the e-CSF that's populating a label, that's populating a risk assessment, that's helping the EPA to make a determination, that's helping to deliver innovation, and take it one step further and help make the end user's life even easier, you know, potentially autoprogramming a tractor or something to that effect. So there is a lot of benefit to every

person in this room and at this table to the work that is happening.

Of course, we did have at least a day with the white page and Michelle is -- I'm going to pass it to Michelle to talk about all the places where there is a lot of communication and overlap.

MICHELLE ARLING: Thanks, Lisa.

So as Ed mentioned during his opening, we did publish in the Federal Register a white paper on structural digital labeling. The link is in Ed's PowerPoint and we'll send it out after today's meeting.

This white paper is basically kind of like the start of a discussion where we describe EPA's vision for structured labeling and structured digital labeling. So again, that template and then how the data from the template can be tagged and used in different ways.

This would be voluntary. And the paper walks through what it looks like or -- in EPA's mind right now -- and lays out potential steps to adoption. And we're also asking for public comment for 120 days so we can get a lot -- as much feedback as possible from stakeholders on the potential benefits, any roadblocks or other things that we

should consider, and then also on the kinds of data elements that should be captured in whatever system or template we end up with.

So the white paper -- I'm going to give just a really quick overview -- goes through the benefits of structured labels and structured digital labels. And we talked about some of this in what the workgroup is doing, too, in terms of consistency, streamlining reviews and submission, making it easier for end users to find information if it is tagged and more sortable on the label and then promoting efficiency and reviews in EPA's work and also label updates out into the field.

In terms of timing and why we're doing it now, the paper talks a little about the digital transformation that's underway, the lessons we learned from previous efforts and then the pretty quickly developing technology in this area.

The phases outlined in the paper are testing digital submission tools that are currently out there. And then we want to talk about proposing a standardized format for public comments, work on voluntary submissions to kind of test the system before it's launched and then refine and continue to build on it.

So going back to workgroups' recommendations, this is the same slide Lisa presented, but I just wanted to highlight the areas of overlap, where this Label Reform Workgroup and EPA are working hand in hand and kind of the workgroup is focusing on elements that will really inform our thinking about structured labeling and they're kind of in the process of developing some information that will really be instrumental as we move forward.

LISA DREILINGER: So now just to focus on the next steps, that was a sort of recap of the last six months and what are we going to focus on in the next six months. What we hope to be able to share at our spring PPDC meeting is, obviously, the integration of the EPA's white paper on label reform, actually creating the data that is going to go into the pick list. So having a structured label, having that template, and then creating the pick list for the data elements.

Of course, it has proven a little bit more difficult using the technology that currently exists to have that compare tool because as soon as you add something and if one word goes on to another page, it turns out everything after what you added will

trigger as a change. So we're trying to work together -- a shout-out to Dan -- I don't know where he is -- a shout-out to Dan in the back. We've been working together on trying to figure out how to create a master label that will not have the compare tool fail when a new page is created.

And then, of course, trying to consider what technology might be available and then what the ideal process looks like to be utilized that would really optimize all of the work that everybody is putting in to creating the protection of public health and the environment.

ED MESSINA: Thanks for that great presentation. Now we're ready for discussion.

JEFFREY CHANG: Thank you. Now, I want to open it up for discussion with members of the PPDC. If you have a question and would like to be recognized, please use the raised hand function and Zoom, and I will call you in the order that you raise your hand. And for people in the room, we'll do the tent cards again.

And if you can use your mic and speak into it, that would be greatly appreciated.

FEMALE: I know everyone else around this table has views on this, but I really want to thank

Lisa and Michelle for their leadership.

I think one of the challenges that we came to when we were first starting to look at this even from an antimicrobial perspective or from the workgroup perspective, was a difference in understanding about what we're talking about here with a master label and what's similar to EPA and then what ultimately goes on to an actual product. And I think once we got through kind of that understanding and a real description of what are the key elements for that master label and what does EPA need to see, I think we were able to progress a lot more and get into the meat of those issue.

You know, I haven't had a chance to review the paper yet, but I do think it's a really interesting concept and I'm just curious, you know, thinking through the process, that this is a one-year mandate. So, you know, the public comment on this goes until March. Is the idea to incorporate some of those comments into the workgroup discussion and are these kinds of two separate tracks from EPA's perspective? Because, you know, we're kind of working this outside of EPA with the PPDC, but then this is something that really came from EPA and so I just want to understand kind of how are these things

working together.

LISA DREILINGER: That's a great question. I can't speak for the EPA, but I can speak for this group. We know from other groups, the goal is, obviously, to have the same goals and to be able to incorporate those goals in and to have a positive work product at the end. And I think right now we have a one-year mandate and the comment period will be over in March. But that does not preclude this PPDC group from changing the remit a little bit, staying on the same topic and refocusing the group for the next year.

So, I mean, we've seen it happen before. If we choose to continue the work on the electronic labeling, then I expect the comments that come from the white paper to factor into the charge questions for the following year.

I don't know if you have anything to add.

MICHELE ARLING: I think Lisa did a great job.

FEMALE: Thanks, Lisa. That was a great overview and I really appreciate the collaboration by so many stakeholder groups.

So there's been some questions -- I'm allowed to ask questions, right?

Okay, all right, good.

ED MESSINA: This session -- yes, this is free and open and the chairs -- because you have a PPDC member who is one of the chairs --

FEMALE: Oh, perfect. Oh, good, all right.

ED MESSINA: Yes, this is part of that discussion.

FEMALE: All right. Just clarifying.

So as far as the benefits to the stakeholders that have been discussed, I'm just curious about the benefits analysis, you know, going all the way through the process. So discussions even like with individual states, you know, with -- some of the states that we know get more deeply interested and involved in labels, like California, for example, and how that's -- kind of conversations there have gone there and whether they participate with the benefits they see and even the benefits going all the way down to the user community at the end. So that's one question I have, so I'll let you answer that one first.

LISA DREILINGER: So we do have some state representatives that are in the room, which I'll just say thank you again. California is not one of

them, but -- and we have not specifically on label reform, through the PPDC, had a discussion with California yet, although that is a good suggestion and one that Michelle and I can take as an action.

Based on other work with California, I think the label needs and how their process works is different than the Federal EPA and we were really focused on a win for Federal EPA first, being that the PPDC is for Federal EPA. And then the question will be, how do we take the learnings that we have here and apply them to other places.

And we have -- Eric is in the room, not to put him on the spot, but so we have a view from Canada and from other places. So it is not just that we're looking at Federal EPA, we are taking other places and insight from other places, but we have not yet had a conversation with California.

MICHELLE ARLING: I just want to add that, obviously, whatever system is developed has to work when things come into EPA and how things get out into the field. And so this workgroup is starting with the input and then we're going to use that to develop tools that can make it out into the field.

And then Gretchen is on the line and she raised her hand, so I'm just going to acknowledge

her now because she is our state representative on the Label Reform Workgroup and she might have some more feedback. So, Gretchen, if you want to jump in.

GRETCHEN PALUCH: Sure. Thank you. I did want to offer that I've been participating as part of the workgroup and I do think that the overall effort is really a great first step at looking at taking on this very large scope challenge of moving toward a structured digital label, and that overall effort really does have a lot of merit with it and a lot of potential for benefits.

I did want to also say that I really appreciate the comments that were made about the importance of including end user and state input in that process because it's a long process to really gain all of that input and the more opportunities there are for all of the different groups that interact with this structured digital label, because it's going to be at different points of the process, the better it's going to be and the more workable it is. And the more it delivers for end users, for state agencies that work with the labels, for handlers that access that label for different types of information, farmworkers, even going all the way

back up to EPA and the registrants as well, the better product it's going to be. So it's a long process, but I see it as one that having a phased-in approach is going to be telling if it will be successful throughout the duration.

Thank you.

JEFFREY CHANG: Becca?

BECCA BERKEY: Thank you. Becca Berkey from Northeastern. I'm not sure if we're still reintroducing ourselves, but I'll do it this time.

Okay. So I have not read the paper fully. I do have it. I have it open. I'm glancing through it as you all are talking. I think one thing I am curious about is -- and I think it's building on what Gretchen was just saying to a certain extent or kind of honing in a certain part of that with the end user group of people that are handling pesticides in the fields. How does what this group is doing in the electronic labeling efforts, how does that intersect with what's happening around bilingual labeling and is there -- I guess, they are both labeling-related issues. I guess I just want to know where are the synergies between those. Are these like completely separate processes?

MICHELLE ARLING: Do you want to answer,

Ed, or do you want me to try?

ED MESSINA: Sure.

MICHELLE ARLING: Okay. So I think they're all labeling issues. This is going to look at how we get the labeling in. And I think once there is standardization, once there is a format, once there is like a common vocabulary, then those translations become easier. So they are not together right now, but I think they are going to really support each other in facilitating getting those labels translated out into the field more quickly.

ED MESSINA: What she said.

MICHELLE ARLING: David?

DAVID SHAW: So I want to echo what a lot of others have said. It's obvious that there's an incredible amount of work that has already gone in and there is a lot more work yet to be done.

The Pesticide Resistance Workgroup last year, one of the recommendations was movement towards an electronic label. And using that just really as a narrow example for a much bigger issue and really capitalizing on the two last comments with the end user in mind, I was just wondering if the workgroup has been able to get far enough along

to begin to project out what kind of a time frame that we might be able to see some of the elements of this come forward so that the end user input can be in the process instead of something that is completed and then getting that input?

MICHELLE ARLING: When you say end user input, are you talking about into the data elements of labeling or the structure overall or how labeling is delivered in the field?

DAVID SHAW: So, yes, to all three, obviously.

MICHELLE ARLING: Okay.

DAVID SHAW: But I guess part of where I'm coming from is -- and I'm in 100 percent agreement with the approach that you are taking. So is this not trying to argue something different than, but I think it's incredibly important to be sure that you're getting that end user input in the design up-front, so the usability on the back end is not an afterthought but rather something that's baked into the system.

MICHELLE ARLING: That is a great point. I think Joe has his tent card up. Were you going to comment on this?

Okay. So I think you're right. We are

realizing that at this stage we do need to know what data the users need to have tagged so that when labels are getting reconfigured and all this data movement, they're getting the information they need in the ways that they need it.

So I think part of what we're hoping for during this comment period is that we are going to get more engagement at the user level because that's the kind of feedback -- like you said, if we get it now, we can design the system with them in mind.

Joe?

JOE GRZYWACZ: I'm so glad that you went first, because I really want to put a call out especially to all the end user kinds of people because, quite honestly, it was not until yesterday -- you know, after meeting for six months, it wasn't until yesterday that I was like, oh, we're organizing data, we're not worrying about words just yet. And so to all of the end users, Amy and my farmworker colleagues, please take advantage of the public comment period because it is only going to be as good as the data going in.

So therefore, having a good sense of what are the data elements and what should be in those data elements in order to yield valuable resources

on the other end, like perhaps some day the ability to distribute things via the website in different languages, perhaps even spoken language using AI and that kind of thing as opposed to requiring things like a cell phone or a projector or something along that line.

But in order to get it right, we need to make sure that the data elements are correct and then we can be worrying about populating the data elements once we know where and what we want. So I just wanted to make really the public call to all my folks who are out there in the various user groups to make sure that your comments are made during that public comment period.

JEFFREY CHANG: Mily?

MILY TREVINO-SAUCEDA: Well, my comment -- well, there's different comments that I have, but at this point in time, what triggered me was when you are going to interpret the information. My question is will farmworkers be invited to join and give feedback. And I'm not just talking about -- I mean, there is different levels of education that farmworkers have. But what we have seen a lot more is that there are people that are guided by someone, maybe a supervisor, to provide the application to

the applicator that they have. Now, that doesn't mean that the applicator is certified or anything like that.

But what I'm getting at is in the past -- hopefully it is less -- companies have used minors and hopefully they are not using minors as much. At the same time, what we know lately is that workers are not allowed, also, to take their phones to work. There is a lot of restrictions in terms of many different things. Maybe it's going to be different with applicators, but the interpretation is going to be very key because it's not just a translation, it's going to be an interpretation. And then it is not just going to be a good interpretation to Spanish -- in this case if it's Spanish -- it's the terminology that will make sense to the worker, because if you don't write the information within the cultural context, it will not make sense.

JEFFREY CHANG: Dawn?

DAWN GOUGE: Thank you. Just two comments. Regarding data elements, the pesticide use reporting systems that do exist in Arizona and California, those elements -- having those particularly would be enormously helpful for people with reporting responsibilities. And then any

opportunity to mesh with ESA systems that's already on system, that's a developing platform, but where it can be meshed, that's a great opportunity.

Thank you.

FEMALE: So one more. I want to give other people an opportunity.

So with regard to resources -- and I know that you've already mentioned that considering whether this will be Salesforce or what the tool will be or whatever. I'm just wondering about, on the EPA side again, knowing resources issues and constraints, if resources have already been dedicated to that -- to this or if this is going to be a need going down the road.

ED MESSINA: Michelle, do you want to answer that?

So yes. Each year, when we get our budget, we'll be able to chip away at this. And part of the money that we'll get each year is going to be devoted towards IT. In fact, by going to a better IT system -- there are some older IT systems that we're carrying that when we get rid of them, it will actually be cheaper for us. So we'll have a cost savings and a return on investment and we'll be able to take the money that we've saved by getting

rid of those old legacy systems and apply them towards continuously developing the new system.

The other part I'll add to the conversation is -- in terms of consulting with people and getting their feedback -- the reason that this digital transformation for OPP is so different from the other ones is we're using what's called agile development. And what agile development does is you put out a minimal viable product, you then have somebody use it, you get feedback very quickly on it, and then you rapidly prototype new versions of that as you're building it.

So version one of the Salesforce iteration that we launched in BPPD looked very different six months later when we did nine new releases of that software, and we had done 26 what are called springs. So as part of this agile process, we will be able to consult with folks. And you've seen a little bit of that when Dan reached out to some of the industry folks to talk about dashboards. Right now, we're in a similar place. This is sort of the discovery phase of what is the road we want to build. And we need to do that up-front work.

And the other part is called human-centered design as you're doing that work. So how

is this end user -- and the end user can be located in many different places. The end user could be somebody in EFED who's looking at this label. The end user could be the farmer out in the field. So how is this tool helping that end user using human-centered design through agile development?

And in terms of the money, the other long way of answering this is, we have a priorities document that Dan and I have worked on. We've socialized it with the division directors. There is seven or eight large pieces that need to come into play to make everything that we want to happen happen.

Just to give you a sense of those large pieces I mentioned this morning, getting off of that old server, getting into a better server and doing the cloud. Right now, 70 percent of OPP's workflows are in the CRM. We want to get 100 percent of those workflows in the CRM, because there are other workflows, like 24Cs and Section 18s and a whole bunch of other things that currently aren't in the workflow. So we've got to sort of stepwise it.

And then we have on this sort of -- what is the short-term fix, you know, that's going to really get us -- you know, pay off, to use Lisa's

words, and then what is our lighthouse vision for where, as we're chipping away on this, we want to be able to head towards. And that's, you know, to Mily's point about making sure that not only is the data there, but it's sort of contextualized and people can understand it.

So in some ways, we're pretty close, but in some ways we're pretty far off and it depends on budget. But it is certainly part of our plan and our desire and how soon we get there is how soon we can get some of these other pieces in place, which so far the progress has been good, but you never know as you -- you know, the other thing I'll talk about is the current custom-built system that we have is the software, which is the front end is breaking. In addition to that old server, it is written in a language that nobody codes in anymore.

The developers who developed that are long gone. And it is like having this new contractor trying to understand how this thing was built in a language that they don't understand so that they can then take it out of old system and move it into the new system. Those are some of the challenges that we face by moving forward. So I'm optimistic, but at the same time I know and Dan knows that at any

step along the way, there is some land mine that comes up and says, oh, by the way, this entire part of the thing failed and we need to spend three months trying to fix it. So I'm optimistic, but I'm also going to be a realist about how soon we can get this done.

Did that answer your question? All right. Joe?

JOE GRZYWACZ: We're good.

ED MESSINA: Okay. All right. Good.

Jeffrey just whispered to me that our next session is 2:45. So we have plenty of time for discussion or we can take a break. What do folks want to do?

Oh, card, thank you. Amy?

JEFFREY CHANG: Name and affiliation, please.

AMY ASMUS: Amy Asmus for the Weed Science Society. I was going to be quiet, but you know me.

So the first thing I want to say is thank you, thank you, thank you very much. We have been asking for clear and concise labels for over ten years, OPPEL and SmartLabel and whatever it was called before then has been working on it for almost as long. I sit in on the workgroup meetings when I

can. They're every week. So they're very difficult to get to every time, but I have seen more go into this in the last six months than I've seen in my lifetime.

But the one thing I do want to say is, you know, I understand the process. But we have to think about the end users and really, like Joe said, encourage them to comment on the open comment period of the white paper, because I would hate to get down the road five years by the time you get your tech stuff in and not have something in place for that end user. We need -- when it gets rolled out, we need it to be rolled out and not changed for the next five years after we roll it out.

We all, sitting around this table, I think we can agree we want a safe and secure food system. We all have different ideas of how to get there. We all have different ideas of the tools that need to be used. But the thing that I can see for us is clear and concise labels to ensure that the person directing the farmworkers understands how to use it safely. So that anybody applying it understands how to use it safely. And I think this is one step towards that. And I just -- although I'm disappointed at the timeline and probably won't see

them in my career, but I think it is a great first step and thank you for all the work that the group has put in.

JEFFREY CHANG: Name and affiliation, please.

ANASTASIA SWEARINGEN: It's Anastasia again from the Center for Biocide Chemistries at ACC.

So one thing, too, to think about -- and I just would encourage user groups to -- outside of just the agricultural users, to really comment on this because as we look at labels -- and we've had a lot of conversations -- it makes a lot of sense to put a use rate when you're applying an agricultural pesticide, but how often are you using a disinfectant wipe, you know. Those types of use rates and those questions I think we need to think about. We're really trying to get to that one template, but we need to make sure that we're really hearing the perspective of all those who are going to use and the types of products, because it might be that we can't fit everything into a box, but we want to know that so that we can make more boxes.

And so I think it's really important to hear a diversity of perspectives on this. So I just

would encourage others to take a look at this and not just the agriculture community but all users.

DAWN GOUGE: Yes, Dawn Gouge, University of Arizona.

I just wanted to say I'm going to respectfully disagree with your idea that nothing will change in five years. With the way technology is changing and the way systems are changing, I can guarantee that there will be a need to change things within five years.

And with the iterative process that you described, I understand that there is these agile sprint sessions where you get to an endpoint. But I like the way the Bulletins Two were coming out to where you can see some information right now. Is it all up there? No. I would encourage the group where it is sensible to do so to start getting stuff out as soon as it's practical to do so.

Thank you.

JEFFREY CHANG: Going once?

(No response.)

JEFFREY CHANG: Thank you, everyone. That concludes the Pesticide Label Reform Update. Our next session starts at 2:45, so we can a 20-minute break.

Before you break, if you wanted to make a public comment, for those in the public who wanted to make a public comment, please sign the sheet here. It will be up at the desk. And we have another clipboard going around, if you can sign that, too, as a sign-in. Thank you.

ED MESSINA: We will see you at 2:45.

(Brief break taken.)

JEFFREY CHANG: All right. Welcome back. We're going to get started in a minute or two.

Thank you, everyone, for returning.

Let's now turn to a discussion on the Endangered Species Act and Stakeholder Perspectives. We will hear from Jake Li, Deputy Assistant Administrator for Pesticide Programs and Jan Matuszko, Director of the Environmental Fate and Effects Division, as well as stakeholder perspectives from Nathan Donley and Ed Ruckert.

Welcome, everyone.

JAKE LI: Great. Well, good afternoon, everyone. I'm really thankful to actually tag team this with Jan, who has been leading so much of this ESA work in EFED and many of the other OPP divisions, too, have been leaning in a lot over the last two years to get to where we are today.

I'm going to set the backdrop a little bit for why this is such a crucial issue. What we're trying to be -- to be responsive to all the public input that we've been getting, and then Jan is going to provide an update on some of the most current activities in terms of bringing us towards full compliance with the Endangered Species Act.

Okay. So many of you have seen some version of this slide before. This just sets the context for why we are where we are right now on ESA. It's been three to four decades of neglect and very limited implementation and the Federal Circuit Courts are absolutely out of patience with us in terms of our need to comply with the ESA. The fact that we don't have enough people, the fact that we're too busy is not an excuse according to the Ninth Circuit.

So the pressure is on and we have, as a result, been trying to move very expeditiously to, at a minimum, have some mitigation measures to being protecting endangered species and to start some of this endangered species assessment work, even though we recognize that under our current process, it's still a very lengthy, multi-year effort to fully comply with the Endangered Species Act if a chemical

needs to go through the full Endangered Species Act review possess.

And the outcome we are trying to strive for here is to still provide farmers and other pesticide users with a suite of pesticide tools that we know they need for food, fiber, and fuel production and, of course, protect endangered species. So one of the big challenges is that if we don't provide some of these early measures, we believe there is a real risk of a decision being vacated by a court on ESA grounds and that is a very significant outcome for the grower and pesticide user community.

So we're doing all of this, again, to provide tools for growers to have a legally defensible and implementable ESA program and to give endangered species the protections that we know they need. So those are very difficult things to try to balance. There's tradeoffs, as many of you know, to doing all of that, but we think we're trying to strike some reasonable outcomes here.

And what we're really focusing on right now big picture are protections to minimize pesticide exposure to endangered species from two routes. One is spray drift and the other is runoff

or erosion. Spray drift, I think many are much more familiar with. Historically, we have adopted spray different mitigation for human health. And what we're moving towards in the endangered species context is to try to provide flexibility to farmers and other pesticide users, as opposed to being very prescriptive to say, you must do X, Y and Z and you can only do X, Y and Z to meet the ESA and FIFRA requirements.

What we're moving towards is the use of a menu that allows growers to pick and choose from mitigation options based on what works best for their circumstance. We recognize there are so many circumstances around the nation. We think about all the crops that are grown, all of the active ingredients that are used, changes year to year.

So we are trying to build a system where we can have an online mitigation menu that can be adapted over time so that we can add or modify mitigation measures to that menu. That's very much in direct response to feedback that we have received from the pesticide user community and as well as registrants on the need for flexibility. So that's one thing we're trying to incorporate as part of these spray drift and runoff measures.

This is a slide -- let's try this again. Maybe if you can advance that for me, Michelle?

Oh, no, I think we went one too far. If we go back one more.

Okay. It might have been that slide somehow got inadvertently deleted. That's fine. Not a big deal. You can keep it on this slide.

So we are also going to talk about runoff mitigation measures as well, so measures such as retention ponds, grassy strips and other techniques to try to slow down and reduce pesticide runoff into sensitive species' habitat. That's newer for us. It is not something we have as much experience with compared to spray drift, and we've gotten a lot of feedback on the various techniques to reduce runoff.

I know Jan and her team are very actively looking through all of the public comments on that, and please expect that we will be considering all of those comments and thinking about how we can adapt these online menus in the future based on what people are telling us work and doesn't work for them in the real work, in terms of applying these measures.

The other thing is that we really need to make sure that these measures are effective at

actually reducing runoff. So data that people have around efficacy of these measures are really important.

So if you want us to consider or add a measure to these menus, please, if you have it, provide data on efficacy because we can't just add a measure without being able to cite its effectiveness. So that's sort of big picture what we're trying to do in terms of these early protections.

Last April, we released a work plan. It is the first comprehensive work plan by our agency on what we think success looks like, what we think the light at the end of the tunnel looks like on ESA, and we've basically been implementing this work plan. We've been trying to do so diligently. And in November of last year, we also issued an update to the work plan that described some of the initiatives that Jan is going to talk about and describe what we call interim ecological mitigation measures, which are basically FIFRA mitigation measures that we think can reduce exposure to both federally endangered species and nonendangered species. So you can think about this as general measures to protect wildlife and the environment

from pesticide drifts and runoff.

Okay. And in September of this year, we were very pleased to announce the resolution of a longstanding lawsuit against the agency related to ESA. I think the importance takeaway here is that as part of this settlement agreement, we agreed with timelines to implement a number of the strategies in the work plan. So that's really important because it provides some certainty and clarity to the public around, well, which of these work plan measures are we actually going to do by what time.

Now, we have a court-enforceable settlement agreement that puts us on a time frame, albeit an aggressive time frame, but, I mean, that's one of the major themes of this ESA work. We have to move fast in light of where the courts are and in light of where the agency has been for the last 30 to 40 years.

So this settlement agreement puts us on a time frame to reach milestones for a number of the most important initiatives described in the work plan.

And with that, let me turn it over to Jan.

JAN MATUSZKO: Thank you, Jake.

So I spoke to this group, I guess it was

May now, and I gave you all some general ideas of some of the strategies that we were thinking about doing at the time based on the work plan update that Jake talked about. So I'm going to talk about a few of them in a little bit more detail than others. I'm going to first talk about ones that we released in June and July and then I'll also give you a heads-up on some other strategies we're working on.

So the first one I want to talk about is our Vulnerable Species Pilot Project, and that's one that in June of this past year, we released a white paper on that pilot. And in the draft white paper, we identified 27 species that EPA had identified as vulnerable particularly to pesticides. We proposed mitigations to protect them by minimizing or avoiding pesticide exposure, and we also described an approach to implement the mitigations in certain future pesticide decisions.

And our goal with the Vulnerable Species Pilot was to reduce the likelihood of population impacts to these listed species and their critical habitats. And for each of these species, as part of the white paper, we proposed geographically specific mitigations using our pesticide use limitation areas, or PULAs, that we put in our BLT2 system to

indicate where the proposed mitigations would apply, including for most outdoor uses of conventional pesticides.

(Pause.)

JAN MATUSZKO: So EPA recognizes that the vulnerable species proposal, and actually all the strategies I'm going to talk to you about today, represent a very new approach for protecting listed species that are vulnerable to pesticide use. We did receive more than 10,000 on our Vulnerable Species Project. Most of them were from a letter writing campaign that was in support of the Vulnerable Species Project. We also received 200 unique comments from a wide variety of stakeholders. You name it, we received them from the registrants, we received them from the growers, the ENGOs. We received them from our co-partners, the states, federal agencies, grower groups, academics -- what didn't I say -- and individuals.

While some of the comments were generally supportive of the vulnerable species proposal, others like this one, like this article right here, were critical of our proposal and requested us to revise it.

Next slide, please.

So after reviewing the comments, we did identify the following overarching areas that commenters asked us to reconsider.

The first one is the PULAs, or the pesticide use limitation areas. I think you all know that the goal of the pesticide use limitation areas is to define those areas where we really need the mitigations to apply to protect those vulnerable species or the critical habitat. And for the most part, we based them on the ranges that the Fish and Wildlife Service has identified.

People asked to us relook at that. They commented that those ranges, for purposes of the PULAs, are overly broad and would apply mitigation where they're not needed and they talked about the impacts associated with that.

The other thing that we proposed was we proposed that the mitigations -- people would have to identify the critical -- the habitat. Let me back up. Some of the mitigations where you couldn't do certain things within a certain distance of a habitat, and we described what that habitat was. People were very concerned about that and their ability to identify those habitats. So they also asked us to explicitly map the habitats rather than

provide descriptions so that states and pesticide users actually were clear as to where those limitations would apply.

And I will say that we recognize -- we agree with the comments, particularly that we were overly broad on the PULAs and we are collaborating with the USDA and the Fish and Wildlife Service and are working with the University of Georgia on refining the maps for the PULAs for these 27 species. And part of the goal with this effort is for us to come out with a standard operating procedure that folks can use going forward, to the extent that we do want to refine the pesticide use limitation areas for not just these species, but all of Fish's listed species.

The other area, we proposed exemptions to the draft mitigations for some application methods, such as spot treatments or when pesticide users are enrolled in conservation programs, and commenters asked us it clarify those exemptions and also whether additional exemptions are needed, and they are also very interested in better understanding what types of programs would qualify for those conservation programs.

For example, everybody is aware of the

NRCS programs, but what we're hearing in the comments is that most people, particularly specialty groups and minor crops, really aren't able to take advantage of those programs, but are taking advantage of state and local programs and they want more information on whether those programs would count for those exemptions.

Obviously, in mitigations, folks asked us to revise some of the proposed mitigations and to include additional options. In particular, they asked us to include additional options for non-ag uses and also specialty crops and minor crops. They commented that most of the mitigations that we proposed were really applicable to ag users and largely for the major crops.

They also asked us to -- you know, Jake talked about the mitigation menu and I'm going to talk about that more when I talk about the herbicide strategy. We didn't have a mitigation -- the same kind of mitigation menu in our proposal and they have asked us to develop a single approach, a single mitigation menu that can be used, irrespective of the strategy that we're working on, so that is clearer to our pesticide users what they need to do to comply.

They also asked us to revisit the selection of the pilot vulnerable species and wanted to better understand how we selected them. And, finally, when we proposed the vulnerable species white paper, we proposed to apply it, I mentioned it earlier, to most outdoor use of conventional pesticides and they requested that we reconsider that approach to account for different impacts of pesticides.

Next slide.

So we have been doing a lot of thinking about those comments and we're continuing to think about those comments, but in the meantime, by December 2023 -- no, by the end of December 2023, we're going to provide an update to the public on our current thinking, particularly on those themes that I identified, and we also, in September '24, will provide additional updates on the VSP more generally and also any plan for potential expansions to other species.

So next slide, please.

Okay. The next effort I want to talk about is our draft herbicide strategy, which we released for comment in July. And for perspective, I want you all to understand the comment period on

that one closed October 22nd. So I'm not going to be able to go through and list the types of themes, but I can talk about them generally.

We're about halfway through those comments. We did receive about 20,000 comments on that one, and I'm also hearing about 200 unique comments on that, too. So we're working through that. But let me give you kind of a big picture overview of what the draft herbicide strategy is as proposed.

Through the strategy, we are developing a broad approach to reduce spray drift and runoff transport to over 900 federally threatened and endangered species from agricultural fields treated with conventional herbicides. Our focus -- because the vast majority of species that are impacted or potentially impacted by herbicides are under the jurisdiction of the Fish and Wildlife Service, our focus is the Fish and Wildlife Service.

This is one of the areas I think folks are confused about. The draft herbicide strategy does not put any requirements on any users or any growers. It is not a proposed rulemaking. Instead, it's a proposed framework that we expect would inform the existing mechanisms we already use to

register and reregister pesticides.

Like the vulnerable species effort, it is one of our first attempts -- it is our first attempt across pesticides to work differently and address potential impacts to listed species earlier in the process and in a more efficient manner. It is intended to provide certainty to our growers and increase the efficiency of the entire ESA process, from the work that we do to the consultation with the Fish and Wildlife Service.

This framework that we describe in the draft herbicide strategy would be applicable to agricultural uses of conventional herbicides in the lower 48 states. And the species that it focuses on are plants and resulting impacts to animals that depend on plants. Then we would identify any needed mitigations and the extent -- the geographic extent of those mitigations.

I think you all know this, but the reason we focused on plants is because typically plants are the most sensitive group to herbicides. So while it wouldn't address all our ESA obligations to all species, it would get us really, you know, to a large amount of those species.

Like a lot of our other efforts, the goal

of the proposed mitigations is to minimize exposure and thereby reduce population level effects, which you've heard us talk about means the likelihood of future jeopardy or adverse modification determinations by the Fish and Wildlife Service from the ongoing use of conventional agricultural herbicides.

The draft strategy describes our current thinking. It is a proposal; it is a draft. You know, in developing that strategy, we have been coordinating with USDA's Office of Pest Management Policy. They have been contributing to potential mitigations, as well as some of the potential exemptions. And as I mentioned, as the species are covered by the Fish and Wildlife Service, we've also been working with them and coordinating with them regularly during the development of the strategy and we will continue to.

Next slide.

Okay. So how much mitigation? I wanted to -- if you haven't seen it, I wanted to show you an example of how we're thinking of trying to display in a simple manner how much mitigation is needed for each chemical. Basically, the draft strategy is designed such that the level of

mitigation relates to the magnitude of the protected population level impacts. So what we mean there is low, medium, and high.

So herbicides with higher levels of protected population level impacts would need more points. And that's basically what you're seeing on this table right here. An herbicide with lower projected population level impacts wouldn't require as much mitigation as one of those herbicides with higher level impacts.

In terms of the proposed mitigations -- and Jake kind of alluded to this earlier at the beginning of his talk, the herbicide strategy reflects mitigation measures that are often already implemented by growers and identified by pesticide applicators.

The other thing that I'll add after working in the Office of Water for decades is that the runoff mitigations are very consistent with the types of mitigation that the Office of Water has been using for years to reduce runoff from other types of activities as well.

The strategy is also designed to provide flexibilities to growers so they can choose the mitigations that work best for their situation.

Next slide.

So this is an example or this probably is the mitigation menu that we proposed in the herbicide strategy to reduce runoff and erosion. Before I talk about this, though, I should mention spray drift. Spray drift, the draft strategy also provides some flexibility, but it's not quite this level of a mitigation menu. The mitigations that we propose should be familiar to all of you because of the types of mitigations we've been putting on pesticides under FIFRA for years now.

Moreover, the proposed approach for identifying the level of mitigation for spray drift is built on existing analysis that we have typically done under FIFRA.

For runoff here, obviously, we proposed a mitigation menu. Like I showed you earlier, we assigned each mitigation a number of points. So some of these mitigations will get more points than others and we're trying to provide flexibility for the growers to use whatever practices that are applicable to them and particularly to use the ones that have higher efficacy where they can.

The strategy also describes our current thinking on some exemptions or alternatives, such as

when pesticide users are enrolled in conservation programs.

Next slide, please.

So where would mitigation apply? Herbicide strategy, we're taking -- we proposed a different approach than we've done in the past. I think you all know that when we establish PULAs, sometimes we establish them for groups of species and sometimes we establish them for individual species. But, historically, what we've done is do those on a pesticide-by-pesticide basis.

Obviously, that's not an approach we can use for an herbicide strategy that applies to about 1,000 species and most conventional pesticides and uses of conventional pesticides, I mean in agriculture. So for the herbicide strategy, we proposed to group plants based on their sensitivity to pesticides rather than attempting to develop individual bulletins for hundreds of species.

Next slide.

So where are we and what are the next steps? So what I want to reiterate -- it's just like the vulnerable species -- this is what we proposed. As I mentioned, we're working through a lot of comments and we can adjust before finalizing

the strategy and also as we implement it.

I can tell you that a lot of the comments that we have been seeing so far are similar to the ones that we received on Vulnerable Species Pilot. People are looking for more options for specialty and minor crops. People are looking for more information on the conservation plans and exemptions. People are looking for more credit or a different kind of credit, whether you're on the west portion of the United States or the eastern portion of the United States. So those are the types of things that we are working through right now. And I think you all know that we have a final herbicide strategy that's targeted for May of 2024.

So next slide, please.

So I just want to give a quick overview of some other strategies that we are working on. In May, I provided an overview of a regional strategy for Hawaii that is a joint effort between EPA and the Fish and Wildlife Service. And the goal of that effort is for the two agencies, with the input of select stakeholders, to agree on how our pesticide decisions can efficiently comply with ESA for the Hawaii species. As an update, we're making really good progress and are now planning to have our

workshop with key stakeholders in March.

We are also actively working on developing an insecticide strategy, like the herbicide strategy. That strategy is a broad approach to reduce spray draft and runoff transport to listed species from agricultural fields treated with conventional insecticides. It is going to focus on addressing impacts to exposure from invertebrates and the resulting impacts to species that rely on insects, say, as, you know, for food and/or for pollination. And, again, we're going to identify any needed mitigations and the extent of those mitigations. We're focusing on invertebrates because they're the most sensitive group to insecticides.

Jake mentioned the "megasuit" settlement. The "megasuit" settlement has a date that we need to complete a draft strategy by July and a final strategy no later than March 2025. We are currently working on developing the draft and we are striving to get that proposal out a little bit earlier, probably June is what we're striving for. We'll see if we can get there.

The next one I want to mention is our rodenticide strategy. I think most of you are aware

that we've been working on a BE as a single BE for 11 rodenticides. Again, this is another efficiency that we're implementing. It's the first time we've tried to do a bunch of chemicals in a single BE.

It also is going to include our proposed rodenticide. Unlike the herbicide strategy, this strategy is designed to prevent the potential likelihood of future jeopardy findings for the species that we're predicting might be in that category in the draft BE and also for the critical habitat. So that one addresses -- will address all the species. And we are targeting a final BE and strategy in November of 2024, and rodenticide draft BE and strategy, we'll be releasing that within the next month.

And last, but not least, one other one I want you all to be aware that we will be working on in the future is a similar strategy for fungicides, and we do not have a date for that as of yet.

And that's it for EPA. Thank you.

FEMALE: Ed, can you turn on your microphone, please?

ED RUCKERT: That's all right. Usually my voice is enough that it doesn't need a microphone. My apologies.

In any event, U.S. farmers grow more than 500 types of fruit, vegetable, tree nut, flower, ornamental, nursery, and turf grass crops in addition to the major bulk commodity crops. Specialty crop production accounts for more than 60 billion dollars or approximately 40 percent of total U.S. crop receipts.

So what I will discuss with you today reflects some overall reactions to and concerns with ESA implementation efforts that MCFA members have expressed. That's not to suggest that MCFA concerns are isolated from the rest of the agricultural community. Similar or related concerns have been expressed by representatives of the major commodities as well.

From the outset, I want to be clear that MCFA supports the agency's commitment to meeting its ESA obligations for all its pesticide registration and reregistration review actions. The sticking point is discerning what those obligations are and how best way to address them. MCFA's members understand the litigation dynamic that's been

driving this issue for years.

They recognize the agency's strong desire to develop an ESA program which demonstrates, I think particularly to the various NGOs that have been plaintiffs in that litigation, that the agency is serious about fulfilling its ESA responsibilities, showing enough commitment that the NGOs refrained from using the courts to challenge the program.

Additionally, MCFA's members understand the current resource constraints confronting EPA, as well as the services. Our members have been saying for years that part of the solution to the ESA pesticide issue has to include additional resources. The absence of those resources can affect the agency's ability to refine issues and approaches. Admittedly, the prospect for additional resources looks rather bleak at the moment.

Now, with that as a background, I intend to briefly touch on the following five areas: Concerns with the time allotted for commenting on proposals; concerns with the apparent precautionary approach reflected in the proposals; the need for the agency to refine its risk assessment methodologies, as well as the geographical areas

where mitigations may be required; the need to further refine or clarify the mitigation exemption process; and the need to reconsider and expand the mitigation measures menu.

Now, regarding the commenting process, MCFA members have expressed strong concerns regarding the relatively short time frames allotted by the agency to review, digest, discuss internally, and prepare comments on the agency's proposals. The proposals and their support information are voluminous and very technical. For MCFA, assembling meaningful comments requires the input of various growers throughout the nation.

Agriculture is not monolithic. Production practices can vary among commodities, as well as within the same commodity grown in different geographical regions. The fact that a substantial number of farmers are farming on rented land is also an additional complexity. It also needs to be remembered that responding to EPA proposals dealing with significant issues that could affect future farm practices is layered on top of what a farmer normally deals, i.e., the daily typical problems in producing and marketing their crops.

Growers appreciate that the agency has

provided some brief extensions of the comment periods. However, the extensions are simply not long enough. There's a general feeling among MCFA members that they are getting squeezed by the relatively short agency comment periods. And while they're not walking away from the process, they are frustrated.

Just to bring this back, this morning Ed went through and listed just for 2023 the variety of measures that the agency has been involved in and issuing this past year. It is overwhelming. And this is their day job. I mean, this really -- this is what they are about. Right? That is part of their business.

But for the people that are impacted, they have their own day jobs. So again, growers want to be part of the process. We intend to be part of the process, but it takes time and time is probably, for all of us, the biggest problem.

Before moving on, there's one other additional point. Many growers have expressed frustration that taking the time to provide substantive comments, the agency response to those comments is not readily forthcoming.

Ed, my understanding is that EPA is

looking at the issue.

Apparently, EPA intends, at some point, to make a catalog of its responses to submitted comments, such that there will be greater clarity and transparency. That's a worthwhile aspirational goal from MCFA's perspective.

Now, regarding the agency's screening level approach, there is a general feeling that the draft Vulnerable Species Pilot Program and the draft herbicide strategy framework reflect an overly precautionary approach. The potential risk or harm to listed species at the population level, in the opinion of a number of people, has not been sufficiently identified or substantiated by the agency. Its approach essentially presumes that the pesticide products, when applied in accordance with current labeling, are likely to harm listed species or adversely modify their designated critical habitat.

Among other things, it's believed that the agency is overestimating the potential pesticide residue exposure to listed species. Again, MCFA understands why the agency is using this precautionary approach. It reflects a strong, if not overriding, interest in reducing litigation

risk, as well as potentially awarding the need for formal consultation with the services when that issue comes up.

However, the proposed approaches in the draft VSPP and the draft framework -- herbicide strategy framework, if finalized, may have significant impacts on farm production practices. Growers may have to implement various mitigation measures -- Jan showed them -- thereby affecting their agricultural operations and practices, their profitability, as well as potential land values. Consequently, before such measures are imposed, the agency should determine that they are necessary and appropriate.

In short, the program approach focused on identifying reasonably likely population-based impacts for pesticide use and then developing appropriate responses to obviate those impacts. As such, it's believed the EPA's underlying ESA assessments need to be substantially refined. The agency needs to analyze beyond the screening level that's correctly reflected, for example, in the draft HSF.

When higher tiered data are available for a pesticide, those data should be evaluated and

fully integrated as part of the assessment. Evaluations beyond the screening level should include using probabilistic and spatial analysis that have been demonstrated to be applicable to ESA assessments.

By the way, everything I'm talking about here has been reflected in comments not just by MCFA, but by a lot of people, and it's recognized that the agency is going through those. So that's appreciated.

It appears that the current agency approach does assume the worst case scenario occurs everywhere, all the time, whereas it is generally accepted that in reality there are ranges of exposures and diversity in habitats across the landscape. The agency has indicated it strives to use the best available data in its assessments. However, it's believed there are higher tiered data available for many herbicides and other pesticides that can be used to refine assessments to better inform and avoid overly restrictive proposed mitigations.

Another challenge that needs to be addressed by the agency is the complexity of assessing risks for listed species at the population

level. It's understood that there are multiple tools and approaches, such as population modeling, that already exist that can be used to assess effects at the population level.

Population modeling was recommended by the National Academy of Sciences for listed species risk assessments and several population models for terrestrial plants, including listed plants, which integrate species-specific life history traits and their ecological interaction and realistic exposure profiles are believed available for risk assessment purposes. And we're sure the agency is going to be looking at that.

Now, in addition, to refining the underlying risk assessment, EPA needs to substantially refine the PULAs and the reliance on species range maps in general, and specifically the four geographically designed PULAs reflected in the draft HSF. They are substantially overbroad, thereby potentially sweeping into the regulatory restrictions growers whose farm organizations are not reasonably likely to affect species or their designated critical habitat.

There is little environmental benefit from overreach, at least to the listed species, but at

the same time we know it's going to have an impact -- a direct impact on agriculture production areas, notwithstanding a number of these decisions will be down the road, but the framework which will be applied to those decisions is being set now.

Now, even the environmental NGOs have publicly recognized the need for refinement regarding these potential areas. From our standpoint, the NGOs are trying to assist in the process as well, the environmental NGOs. They have an interest. Their interest is protecting species. We share that interest. It's, again, the approach that should be used. We want to use a scalpel to take care of the issue rather than a sledgehammer. And we think more work can be done by the agency to use a scalpel approach. (Inaudible) that's our help.

And as Jan just indicated, the real good news out of today is that the agency has indicated they're working with the services on refining the PULAs and applicable maps. So we're hopeful that when those refinements take place, they will be in place in time for when label mitigations have to be followed by the growers.

Now, regarding exemptions and the

exemption process, MCFA members see great potential value in the mitigation exemption process. The mitigation exemption process related to runoff and/or erosion mitigation plan implemented according to the recommendations of a recognized conservation or expert -- that's the touchstone -- need to be practical and as expansive as possible. However, EPA's acceptable parameters of such a program for such exemption, what constitutes a recognized conservation program, it just isn't clear. Additional guidance is needed from the agency.

A number of specialty crop growers are following conservation plans which result in limiting the ability of a pesticide residue from moving offsite through runoff or erosion to nontarget areas. For example, in California, there's the California Irrigated Lands Regulatory Program, the ILRP. All commercial growers in California are required to conduct a farm assessment and, if necessary, develop an erosion management plan that is overseen by the California State Water Resources Board. The erosion management plan is certified by eligible experts that have been trained to conduct erosion management plans. It's believed that the ILRP program is the type of program that

should meet EPA's objective of preventing runoff and exposure to listed species.

Similarly, in Florida, the Florida Department of Food and Agriculture Consumer Services, Office of Agricultural Water Policy, has a decades' long collaboration in place with Florida's agricultural landowners and producers to implement BMPs for limiting runoff of pesticides, nutrients, and sediment while protecting water resources. Such runoff elimination practices should be considered applicable for protecting threatened and endangered species.

By way of example, the State of California documented that in 2022, nearly 425,000 acres of citrus crops were enrolled in and following the runoff prevention BMPs as were more than a million acres of row, field, and vegetable crops. We ought to take advantage of that. We ought to build on that.

It's believed that similar programs exist in other states. The agency should review each of those programs and hopefully concur that if growers are following the mandates of those programs, they should qualify for the exemption. A viable exemption process can serve as a significant

mechanism for reducing the potential burdens on the affected grower stakeholders. MCFA encourages EPA to increase its dialogue on this process with affected stakeholders and also with USDA's Office of Pest Management Policy, as well as the National Association of State Departments of Agriculture.

As an aside, I want to state that the representatives in OPP that are dealing with this issue, from Jake on down, have had a very open-door willingness to meet with stakeholders on this, and we really do appreciate that. And you're not going to like it, but we need more dialogue. This issue is going to be solved by dialogue among people to share ideas, share approaches. Again, we all want to get to that endpoint. We don't want the program shut down for failure to comply with ESA. We want to comply with ESA. Again, it's how you get there.

Now, regarding the mitigation menu, MCFA applauds the agency's offering a series of mitigation options rather than a one-size-fits-all approach. However, for many specialty crop growers, the current menu of mitigations doesn't present practical or economically feasible choices. That's understandable since the acknowledged source of many of these proposed mitigation measures is the USDA

Natural Resources Conservation Service, NRCS.

And while historically NRCS has been substantially involved with the major groups, it has little or no involvement with specialty crop growers. The agency should reconsider some of the parameters of the existing potential mitigation measures, as well as increasing the menu of potential mitigation options. In the case of the VSPP, many growers have advised they would be unable to feasibly implemented four mitigation measures. They can't do it.

Similarly for the draft HSF, there are a large number of growers who simply will not be able to meet the nine points that would be required -- that may be required to use some herbicides. We understand that's yet to be determined, but nine points is out there. A grower is going to conform their operation to the chemical that they need which has the highest number of points. And when you say to somebody we'll just switch out the chemical and stop using it, there are consequences to that. It changes their production pattern and, in some cases, may result in more chemical being applied. So that just needs to be kept in mind.

This whole effort will likely result in

growers having to consider significant changes to their crop protection weed management programs. Such changes may result in unintended consequences, such as an increase in weed resistance. If you cut back on the rates, the opportunity for weed resistance skyrockets. Or potentially, even ultimately, existing farming forever. They will just sell out to a commercial developer.

No offense to any commercial developers in here, I don't see moving from a farm operation to a commercial development as really furthering the purposes of the Endangered Species act. It seems to me that commercial development is one of the biggest stressors on endangered and threatened species. So that's not a good development. We don't want to have that happen.

Now, again, we just believe that there needs to be additional dialogue with EPA on potential mitigation options and we've offered to partner with EPA on a workshop, a mitigation workshop, that would be a good place to bring people together and share ideas, including the services so they could hear this.

And with that, I'll end my comments, but thank you for the time.

ED MESSINA: Thanks for those great comments.

FEMALE: Nathan?

ED MESSINA: Nathan is up. We'll throw your presentation up and we'll take questions. Nathan is going to talk next.

NATHAN DONLEY: All right. Well, thanks for the opportunity to speak here about our perspective.

My name is Nathan Donley. I am a scientist at the Center for Biological Diversity. We've been involved in this issue for a long time, as many of you probably know. So I'm going to give our perspective on this issue.

I want to start by taking kind of a 10,000-foot view here, because when we talk about the details and the impacts and stuff like that, we kind of miss the big picture of why we're here, and I think it is good to remind ourselves of that every once in a while. So you can go next.

Why are we here? So believe it or not, this might actually be summed up best in the immortal words of Richard Nixon, which admittedly sounds kind of like the setup to a bad joke, but, you know, he said nothing is -- upon signing the

Endangered Species Act, nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed.

And not many realize this, but the Endangered Species Act was bipartisan. I think out of 460 or so votes in the House and Senate, there were only four votes in opposition and it was signed into law by a Republican president. So I mention this because, you know, there was a time in this country where we came together collectively and said, we need to go to any length to save wildlife from extinction. You know, it was us taking ownership of what we are capable of when we're at our worst. And I would argue that it's really our moral responsibility to these species. They are on the brink because of us and the least we can do is try and prevent their total loss and extinction.

And, you know, the Endangered Species Act has been very successful. We're talking about 99 percent of the species listed have been saved. It's estimated that about 300 species that exist right now today would be extinct if it wasn't for the passage of this law. Three hundred species, that's heavy. It is just such an important piece of

legislation. And many more species have seen their declines plateau. Some have even seen them reversed to the point where they no longer need federal protections. And that's what we want to see. That's a mark of a successful piece of legislation right there.

And I will concede that there is one serious design flaw with the Endangered Species Act and that is it has been implemented. You know, you got to follow the law. You got to do the steps to save the species. And that's ultimately why we're here, is EPA on the precipice of starting to do that and that's a really good thing.

You can go next.

So next month will be 50 years that the Endangered Species Act has been federal law in this land. And, you know, EPA has not been compliant with that law for the past 50 years. And I want to mention that this is a law, the Endangered Species Act, that nearly every other industry complies with in this country, the mining industry, the timber industry, developers. You know, everyone is compliant with this law. So nothing novel is happening here. No one is singling out the pesticide industry. This is just normal for other

industries in this country and it is important that every industry is held to the same standard.

And that's to say pesticides are an outsize threat to species. Species face many threats. There are some species out there that face -- you know, that have absolutely no risk from pesticides whatsoever, species that live in caves or they're at high elevations where there's no pesticide use. So you don't -- there's just, you know, species out there that the risk is negligible from pesticides. And on the other hand, you've got species where pesticides are a primary threat, like the Poweshiek skipperling there, the Dakota skipper. You know, these species -- pesticides are really hitting them hard.

And then most species fall somewhere in between where pesticides are one of probably five or six threats. But as, you know, other industries have been compliant with the ESA, some of those threats have been minimized to some extent, and that hasn't happened with the pesticide industry right now and that's what needs to be addressed here.

And I want to acknowledge two equally valid, equally important perspective here. And one of those you just heard, from pesticide users. I

just heard there is a lot of frustration on the part of pesticide users. There is a sense that this is going way too fast, a sense that this is really complicated, you know, and, quite frankly, a lot of fear, what does this mean for my business, what does this mean for my livelihood. I personally think a lot of those fears are misplaced and I don't think the impacts are going to be as high as many people have said here today. But at the same point, I understand that perspective. It's a valid perspective. If I was a pesticide user, I would probably be feeling the same way.

But I want to give another perspective that doesn't get discussed very often that's equally important and equally valid, and that is of these listed species and those of us who try to speak on their behalf as best we can and those of us who value a biodiverse planet. You know, some of these species have been waiting for these protections for 50 years. I mean, you know, that's longer than I've been alive. It's been an entire human lifetime that some of these species having been waiting for these protections that they are legally entitled to under our laws. And I just want to acknowledge that.

You know, it's easy to say that this is

tough, and it is. No one particularly one wants to be here. You know, I would say that no one is really happy in the place we're in. One perspective thinks this is happening way too fast. Another perspective thinks this is happening at a snail's pace. But what needs to happen is this has to go -- you know, we need to put these protections in place. There is no other option here.

The longer we put this off, the longer you can say the oil and gas industry is doing more to comply with the ESA than this industry. And let me tell you, that's not a good look.

I hear from farmers a lot that farmers are the original environmentalists and farmers are good stewards of their land and good stewards of the environment. Don't just say it, show us, prove it. Because if someone tells me that -- you know, if a farmer comes up to me and tells me they are a good steward of the environment, the whole industry is not in compliance with one of our bedrock environmental laws. You know, those words ring hollow to me.

So let's roll up our shirt sleeves, let's get this done as quick as possible. The sooner we get through this, the sooner species will be

protected, the better the image of the industry and EPA can use its resources on other pressing issues.

Next.

So we know why we're here, but what's the goal. What are we trying to achieve? And the goal really is to make endangered species not endangered anymore. We need to prevent extinction and give these species the breathing room they need to stop treading water and, you know, get out of the pool and start recovery. Get delisted. Ultimately, that's the goal.

And the Endangered Species Act has been really successful. We know how to do that. We need strong, targeted mitigations. That's how we save species.

Admittedly, how best to do that is a work in progress. EPA is embarking on a process here that hasn't happened anywhere else in the world. There is no play book on how to do this. The scope here is immense. And I think they've got a really good start on some programmatic strategies to move forward here. Particularly, I think they've identified a menu of options -- of mitigation options that when combined can, you know, put in place some good mitigations. But what's clear to us

is that, right now, EPA's having trouble targeting those mitigations and that's something that really needs to be addressed moving forward.

And when I say EPA is having trouble targeting those mitigations, what I mean is the maps they're using are just -- they're not ready for primetime. They're not ready to be used to develop PULAs with, pesticide use limitation areas. They are subpar. They're -- you know, they're just -- they're not there. They're not targeted. They're not precise enough. And what I mean by that is most of them are overly broad.

And you may be asking yourself, why on earth is the Center for Biological Diversity up here saying that these maps are overly broad? Isn't that what they want? Don't they want more land to be subject to all these mitigations? And the answer is absolutely not.

In the context of FIFRA, let me be clear, I think pesticide use needs to come down considerably. I think the societal benefits would be huge and it would help protect communities in the broader environment. But, you know, I'll continue to fight for that in the context of FIFRA, in the context of registration and registration review.

But in the context of ESA, that's not the goal. The goal is to protect species. And when you have range maps that are overly broad, it can actually cut against your conservation goals.

I'll give you an example. If you've got a species that exists just in a few pockets throughout a state and the Fish and Wildlife Service range map says that that species exists in half of that state, you know, let's be honest, EPA is not going to put in place strong mitigation measures across half of a state. It's just not going to happen. So what we're going to be left with is weak mitigation measures across half a state when what we really need is strong mitigation measures in those small pockets that those species are in. That's how we save species. We know how to do it. So we just need better maps right now.

And I am going to go through a really short exercise with you on how we envision EPA could develop some sort of like interim process to develop PULAs that are justified and pass the smell test, you know, because ultimately this is the job of the Fish and Wildlife Service and they need to do this, but it's going to take them awhile. So EPA has to develop its own PULAs in the interim. I mean, from

our perspective, it just has to happen.

So we've kind of gone through an exercise and a case study -- we can change the slide -- on how we envision some sort of interim process could work to tighten up these PULAs and make them more precise and targeted.

So, the example I'll use here is the Valley Elderberry Longhorn Beetle. This little guy exists in the Central Valley of California. And I'm just going to go through kind of like a -- I don't know -- work plan or something like that that we have sort of conceptualized on how EPA, maybe in conjunction with the services, could go about tightening up some of these PULAs.

Next.

So the sort of blueish map on -- what is that -- yeah, your left is the pre-2017 range map from Fish and Wildlife Service. These maps aren't on the same scale, so sorry about that. The one on the left is a much larger area of land. So that like covers a fifth of the State of California. This is not the range of the Valley Elderberry Longhorn Beetle. And so Fish and Wildlife Service has refined that range just this year, but it still says the range of this beetle is like the entire

Central Valley of California.

And this beetle is primary riparian obligate, so that means whenever you see it, nine times out of ten, it's going to be on an elderberry bush on the side of a riverbank. It wants to be where the land meets the water.

As much as I would love for the Central Valley of California to be this vast riparian oasis that has, you know, wonderful species in it, it's just not that. So to say this beetle exists in the entirety of California's Central Valley, you know, it's just not -- it's not justified. So this is kind of step one in our process of updating a PULA here for this species.

So, you know, EPA, if they developed a PULA now, it would be that right-hand green polygon here. That's a lot of area for a species that exists just on a single plant in a riparian area.

Next, we can go to critical habitats. Some species have it designated; some species don't. Unfortunately for the Valley Elderberry Longhorn Beetle, the critical habitat sucks. It doesn't encompass any of the known areas that we know this beetle to exist. It was developed like 40 years ago, so it's way outdated and it's not useful for a

PULA. But for a lot of species, critical habitat can be a really good start to develop a PULA from.

So the next step in this process is to basically just pour through Fish and Wildlife Service documents. Fish and Wildlife Service does a ton of analysis when species are listed and throughout -- over time as that species is still listed on the Act. They do five-year reviews, recovery plans, SSAs. So all these documents have really good data in them that can be mined to develop a PULA.

And we did this -- the most recent five-year review includes this map. These are, you know, known extant occurrences of the beetle. You can see, again, it just exists along rivers. That's the habitat it likes. And the Fish and Wildlife Service documentation has sort of a list of where these occurrences are and priority river systems there. And then they -- you know, they have some methodology where they look at, sort of, local -- what are called exit holes.

So it's rare to actually see an adult beetle in the wild because it spends most of its life cycle burrowed into the wood of the elderberry plant, and then when it -- after it pupates and

becomes an adult, it chews through the wood and forms what's called an exit hole. So when you do surveys for this species, you're just looking for exit holes, not adult beetles. And when you have, sort of, local clumps of exist holes, you can kind of just draw a polygon around that and that is -- part of it is extant range.

You can go next. Next slide.

So we did this. And for most species, that's enough. That would be enough to develop a good PULA from. For this, the Fish and Wildlife Service cited the California Natural Diversity Database in its documentation, which is updated kind of regularly. So this database could be mined over time to update a PULA if EPA were to develop something like this in an interim process.

So here you go. I mean, you know, the PULA originally would probably have been this green polygon. Now, it's these tiny red dots in California. We believe this PULA is more targeted and still protective of the beetle. We've got like a 99 percent reduction in this PULA just by saying, okay, the range map, it just ain't up to snuff. Let's go through these documents, see where this habitat is, where we know this beetle is and protect

those areas. So I imagine this probably looks quite a bit -- much more nice to growers to see a lot less impactful.

But I want to be clear, there's got to be a tradeoff here because while that green polygon there is potential beetle habitat in some bizarro world that doesn't exist, now we're looking at species are there in those red dots. There's no uncertainty. So that just requires a different calculus on how we need to implement protections in these areas. So whereas there would probably be relatively weak mitigations in that green polygon, with an updated PULA like this, now we need to be talking about much, much stronger mitigations being put in place.

For some really sensitive species, that can mean things like pesticide use restriction areas in these tiny red dots in California. For other species, again, you know, a lot of runoff points. Maybe no spray buffers in the hundreds of feet. I think that's what we need to be talking about here. We can tighten up these PULAs considerably, but when we do that, now we know species are in these areas and we need to be talking about very difficult types of mitigations there.

You can go to the next slide.

So that's kind of an overly simplistic view of the process we went through to update this PULA and it took two of our staff about three hours to do this from start to, you know, lines on a map. So this is scalable. I think this is probably doable. It's not going to be much fun, let me tell you. But I think it's something that EPA should seriously consider to make these maps more trustworthy, let's just say.

And the nice thing is when new service documents come out, when databases get updated, PULAs can get updated, too, and we can keep, you know, adding dots to this map and taking them away as, you know, the science says.

Yeah. So next slide.

So let's figure something out here. I think, right now, our focus is coming to the table with other stakeholders with ideas to make this process work better. Like I said, I think EPA has a really good start, but this can be made to work better for both species and growers. I have no doubt in my mind that that is possible.

I want to highlight this bold area here. Changes and ideas still have to be adequately

protective of species in a manner consistent with the conservatism built into the ESA. I know there's a lot of frustration out there that the ESA is a precautionary document. It just is. It's a strong environmental law. It's not FIFRA, let me tell you that. So we need to be adequately protective of these species. If we're not, you know, again, the threats to them -- this isn't just generic impacts or, you know, anything else. We're talking about their entire existence that's on the line. And that's the greatest threat you could have as a species.

So I think, moving forward, this could work better if stakeholders get together and start discussing serious ideas. How do we make this process work better for growers and for species? Because I think it can. It requires some trust on the part of stakeholders to come together and talk about these things. It requires transparency and I think a genuine desire to see this work, which I think that everyone has.

So I would love to sit down and talk to people. We'd love to get together. Not that you need our approval or endorsement for anything you propose to EPA, but, you know, here's my pitch. If

a bunch of diverse stakeholders can get together and, you know, hash some things out, we can go to EPA and say, listen, we disagree on like 80 percent of things, but we've got 20 percent here where we found common ground where this could work better for growers and species, do this, I mean, EPA would be hard-pressed not to seriously consider that proposal.

So there you go. For what it's worth, reach out if you'd like. We're happy to be a party of any conversations, give our thoughts on any proposals you all have and just generally talk this over. I think there is common ground absolutely. Like I said, with the maps, developing an interim process to update PULAs, I think there's common ground there absolutely.

I think there's common ground on maybe trying to figure out some ways to make these labels a little more simple. From our perspective, a complex label equals decreased compliance and decreased compliance equals we're not meeting our conservation goals. So, you know, we have an interest in seeing these labels, you know, become as simple as possible. They're never going to be simple, unfortunately, anymore. That's just not --

that's a tough one. But, you know, I think there are ways to make some of the mitigation menus and maybe the point system a little more user-friendly.

Okay. Next slide. I think this is my last slide. I'm sure I'm a little bit over time here.

But I just want to end on implementation because none of this is worth a hill of beans until labels are changed, quite frankly. So labels need to be changed and they need to be changed quickly and equitably. And what I mean by equitably is they have to be changed within a short period of time of one another or else you're setting up a stage for one product to have its label changed and its competitor project not getting changed until five years later. You're just setting up a competitive advantage for another product and that's nothing that EPA should get into at all.

And the way we think this can work best is for EPA to use its Label Improvement Program. It has the authority to do this. It's done it before. Right now, EPA wants to do this in registration review, which, fine, okay, but registration review is a mess. I mean, it's not just the ESA, it's the EDSP, too. I mean, it's been delayed already. Who

knows? It might get delayed again. Let's just avoid the messiness and push this through in the Label Improvement Program when we're ready. I think it's a much better mechanism to do that.

And then, you know, I just want to end by saying implementation is not going to affect all pesticide users. I really truly believe that a lot of users will have little to no impact at all from this. But there are going to be some growers that are in these lines. There just are. There's no way around it. It's going to be a small minority of growers, but that small minority of growers, I think, are going to have pretty big impacts. They may, in some cases, have to change the way they farm and I know that can be scary.

And I really hope that USDA can play a key role in giving these growers the support and the help they need and I have no doubt that they're probably going to need some help from Congress to do this, either in the form of a mandate or resources, and we're fully committed to supporting anything like that and even working behind the scenes to get it passed. But just like we have a moral obligation to species, we have a moral obligation to help out growers who are impacted by this. We really do.

And it should be something that we all work towards, you know, regardless of our perspective here.

So I'm hoping that we can set up these growers who are going to be impacted, set them up for success and not failure. And that's all from us.

ED MESSINA: Thanks for great presentations today, really, truly moving and informative.

So we have about a half an hour for questions. Yep, so with that, tent cards up or raise your hand online.

JEFFREY CHANG: Thank you, everyone. And we can move to discussion. Just please remember to state your name and affiliation before you speak.

We can go with you, Gary.

MALE: I believe that John Wise had his hand up.

JEFFREY CHANG: Yeah, sure.

ED MESSINA: Yeah, even before Nathan started talking.

JEFFREY CHANG: Yes, John. John Wise.

JOHN WISE: Does this mic work okay?

ED MESSINA: Yes.

JOHN WISE: Hi, I'm John Wise, Professor

of Entomology at Michigan State University, also involved for 30 years with the IR-4 Project. My comments will be through the lens of an entomologist, so I'm thinking more about the upcoming insecticide plan, but I think there are some broad implications.

First of all, I want to thank Jake and Jan for their presentation. Actually, I've had the opportunity here, Jake, maybe three or four times in the last month, so I've been --

JAKE LI: Sorry about that.

JOHN WISE: Yeah, sorry about that. No, the only thing I'm sorry about is you are so popular at the entomology meeting last week that you couldn't stay through the entire symposiums and kind of get some other ideas. So I have the opportunity to share a couple of them with you now.

So I think many of the elements of the plans that I'm seeing in the work plan, in the guidance documents, are science-based, they're logical, the target objective is correct, but there's a couple pieces that are troubling and I want to maybe just pick one primarily out here and place it out and see how much you already recognize it or maybe you'd like to hear what I have to say.

So you described, in one of the presentations last week and I heard a hint of it today, that one of the difficulties is that even though using the normal review process is the most efficient, that timeline is not going to work for the agreement that you have with the settlement and, therefore, you're looking for a way to get to impact more quickly. If I understand it right, one of the ways to get to that finish line more quickly to make broader assumptions about -- I'm going to use the term "insecticide toxicity."

And the reason that is troubling to me is that when I think about 20th Century insecticides, modern insecticides, which in many cases we call them reduced risk pesticides, biopesticides, the attributes of those three groups are quite different where if you're thinking about a risk assessment, the attributes of organophosphates, pyrethroids, and carbamates, they are generally broad spectrum, meaning that they would be toxic to a wide range of arthropods.

That broad spectrum also applies to life stage toxicity, so it might affect adults and larvae and eggs. And they also, in terms of environmental fate, they tend to be primarily surface residue

compounds. So the residues are retained on the surface of the plant, which makes sense for a contact poison if that's your intent.

Those attributes are very different than the ten-plus classes of insecticides that have come in the 21st Century. And so there must be a way to take into account some of the selectivity. So in some cases, we've got new insecticides that are only active on one group of arthropods. Maybe it's aphids and scale insects. And they would have no activity -- toxic activity at all on beetles. Well, why would you restrict that compound in the same ways you would a carbamate when there's really no gain? Nothing positive would come out of restricting the use of that compound.

There's other new insecticides that they may be toxic to the species or the family of insects that an endangered species falls within, but only on one particular life stage, maybe only on the larvae. I'm thinking about mathoxyfenozide and the Karner blue butterfly. So if that Karner blue butterfly, for example, is a larva for about three weeks in the end of June, why would you restrict the entire growing season from use?

Growers, at least specialty crop growers

that I work with in Michigan, they are very astute at being able to read a label and know what timing, according to growing degree days or other kinds of verbiage on a label. A mitigation could also include that type of language where it would be mitigated on at the time in which that susceptible life stage is present.

So those are pieces that, from my lens, from a specialty crop perspective, would be worthwhile considering as your kind of -- both at the risk assessment stage and potentially at a mitigation stage.

The last piece I wanted to add is that many of the newer compounds have plant penetrative attributes that change the biological risks after an application. Where we said earlier, many of the conventional products are sprayed to the surface, that's where they are. Many of the newer chemistries of reduced risk insecticides, they are moving into plant tissue. And after a short period of time, unless the plant tissue is consumed, it is no longer a lethal exposure.

So those are the pieces that because of my background and my research and my working with specialty crop growers, I feel like it would be much

more useful to think about those elements at the risk assessment and at the mitigation.

And I also -- I'd just add one last thing, and that is, I think most of the growers that I know in Michigan, if they thought that their pesticide use was going to threaten the survival of an endangered species, they would want to know what they can do to not have that negative impact. On the other hand, if they find out that a mitigation, a sacrifice that they've made in avoiding a tool in their tool box, actually, in the end, had no positive effect because the policy was too broad and sweeping, that would be a losing faith experience.

And my son, he's 25 years old, he says, Dad, that's what they call virtual signaling. You put something out there that sounds great, but it has no real impact. Growers, I think can get behind mitigations that have real impact and truly assure the survival of the population.

So those are my thoughts. I'm glad to put some things on paper if that's more helpful, but thank you again for all that you do.

JAN MATUSZKO: Thank you for those comments. I do want to clarify a couple of things in your understanding of what we are doing and what

we're not doing in light of what you said.

The vast majority of insecticides that we're seeing on the conventional side don't necessarily fit in -- maybe we're seeing on the BPPD side, but we're not seeing those on the conventional side, because it's my folks that are doing the risk assessment for these.

We do take those types of things into consideration. We're not shortchanging the FIFRA assessment. All those things that you're talking about are things that we would look at as part of the FIFRA assessment. We're not changing that. And that FIFRA assessment starts as our screening level assessment, whether we're doing a strategy or not for our ESA assessments. So if we identity that something is not a problem in the FIFRA assessment, it doesn't move forward into the ESA assessment. So I want to make that clear.

Where we're trying to do things faster is the second part. We're trying -- right now, the process that we use to predict the likelihood of jeopardy and adverse mod, which is based on what the Fish and Wildlife Service has done, right, it takes them years to do it. It's taking us -- I can't tell you how many people and months to do it. And as

we're doing these and we're doing more and more of them, we're seeing connections that when you have this or you have this kind of situation, that that's what's leading to jeopardy. And that's the part that we're really trying to speed up here and focus on. So I really wanted to make that clear.

And the other thing is we totally agree with you that sometimes it's about life stage, sometimes it's about life stage of the chemical and sometimes it's very much about the life stage of the species. And so where we are aware of that information, then that's where it's really helpful to have really good information from the Fish and Wildlife Service. When we build those bulletins, we can say -- and we have done -- okay, this only applies -- you know, you can't use it for these three weeks or whatever what you're saying.

So we are going down that path and I have some folks at my division that might be interested in talking to you. So thank you.

ED MESSINA: Humans are outliving the batteries here.

JEFFREY CHANG: We can go with Gary next.

GARY PRESCHER: Okay. Some really good discussion and I'm going to be just speaking for the

Corn Growers Organization, which comments that we've talked about, a lot of them parallel what we've heard. The NCGA, we realize that there is a need for the EPA to comply without unnecessary delay. We do. I think we can all kind of see the writing on the wall here in terms of what's happening.

I think we all understand there can be -- there will be some monumental shifts that take place out there in terms of, where I can inform the end user if I happen to be in an area that -- one of those dots on the map, perhaps, for some more focused mitigation practices or in a broad area.

I understand and like what I heard about discussion, you know, to narrow things down as much as possible instead of the broad sweeping efforts and the scalpel. I kind of like that. In terms of growers, I really do -- at least the folks I live with in my part of the world, we care about what we're doing because we have to live there, too, number one, and we have families. But that's not everybody, we realize that.

One of the challenges that I see as I move towards retirement, as farms scale up and get bigger, it becomes more generic and it's tougher to implement -- to see conservation practices

implemented in terms of scale of economy and those types of things. So there's that challenge, too, that social changing challenge out there in terms of larger farms, more efficiency in terms of other things. But then we have the precision ag and the robotics, you know, and the tools coming forward to help us with some of that, too.

So the big thing we want to emphasize here, from our perspective as corn growers, is the timeline, hasty implementation, and we know that there is a timeline, because it will force noncompliance or a change to less conservation sustainable practices when it comes to tillage, weed control, disease control, those types of issues out there, the unintended consequences. If we take a tool away, we'll figure out how to get it done, but it might not be the way we look at in terms of sustainability metrics and the conversation efforts that the industry is moving to now when it comes to less soil erosion, runoff prevention, and those types of things.

Last, I would like to just reinforce that I think when you --

(Break in recording.)

-- an option of something out there either

new or controversial, the more collaboration that we have with partners in the industry, I think that just brings more people to the table faster in terms of scaling things up.

We look at our -- I worked with industry for 35 years, but I farmed, but also have a high regard for our extension research folks in Minnesota, for example. And so I look at when we can bring extension folks together with industry folks and folks in terms of the regulatory agencies, be it in Minnesota regulatory folks or federal, I think that's something we just want you to encourage to do is work with everybody that's involved and continue to take feedback, stakeholder feedback from a lot of different areas.

And we really would like to continue to work towards workable procedures for exemption and more feasible mitigation measures, more flexibility there. So I think that will just be ongoing as we continue to move through this. So I appreciate that and the conversation here.

JEFFREY CHANG: Thank you. Who's down there? Walter? Okay. Mark. Sorry, it's hard for me to see.

MARC LAME: But you can call me Walter.

ED MESSINA: I'm not sure Walter is going to like that. He's sitting right next to you.

MARC LAME: He publishes a lot more than I do. I'm Marc Lame and I'm a professor at Indiana University's School of Public and Environmental Affairs. I'm also an entomologist and I also spent 11 years as an IPM extension specialist working on cotton in Arizona. So I come at this from more of an environmental management viewpoint right now.

My concern is the idea of implementation and enforcement with regard to what you guys have come up with, which, by the way, I see as a very elegant way to address your problem and you guys are doing a great job. And I appreciate the office's equitable offering of time to both sides. That's a very good way to do things.

So we know that growers and pesticide users, you know, they know, in some ways, best how to protect species and what Professor Wise was talking about as well. On the other hand, you also have some other resources who know how to protect species. States and municipalities where those species are and where those institutions, in my case, universities that are actually studying those species in terms of right where they are and what

they are as opposed to from way back looking at maps.

And so these municipalities and states are -- should be considered resources. And, again, species -- like farming is not monolithic; species are not monolithic. It depends, as we already talked about, their stage- and where --

(Audio lost.)

MARC LAME: All right. Thank you.

It's that, well, even the different strains of species are going to have different ways of acting and reacting. So, you know, there's lots of variables out there, and I know you know that and I know you're trying to incorporate that, but don't lose sight of the resources in the states and with the municipals that are out there.

And the reason I bring that up is the idea of federalism, which I am not going to give a lecture on. But just in general what that means is power sharing. And sometimes, you know, states and municipalities know better and they'll actually go above and beyond regulations that the Feds put on them and, you know, in federalism, you can't go less strict than, but you can go more strict than.

So yet, there appears to be a movement

right now in Congress to preempt states and municipalities from becoming really good resources in their ability to help implement good practices and your practices, maybe even a little stronger, at the state and municipal level. And so the reason I bring that up is, is I hope and this -- I don't want this to get into a political conversation, but I hope that you are aware of what is going on with regard to that preemption and what it's going to mean to you when it comes to implementation and enforcement.

And so that is something to think forward on. I think it is just really important that we deal with that, which, of course, I consider that preemption is a violation of federalism, but regardless.

The final thing that I will say when it comes to a lot of the scientific stuff here we talked about today and Professor Wise talked about and we'll talk about tomorrow, and what EPA, particularly this office, is against a rock and a hard place, and science changes always. And so these things that we come up with now, it's going to change and we have to make sure that people -- you know, the mission is to protect human health and the

environment rather than to, you know, delay recognition of changes so we can really accomplish the mission.

So those are my comments.

JEFFREY CHANG: Thank you. Damon?

DAMON REABE: Yeah, Damon Reabe with the National Ag Aviation Association. If my battery goes dead, you don't have to come running with it, I'll talk loud.

I guess I want to start off by thanking the EPA for their presentation, the two presenters, and particularly Nathan. That was an excellent presentation, a great example of working together, collaborating. I'm not saying that we collaborated. The idea of what you're expressing is excellent. As a pesticide applicator and somebody who's, you know, deeply involved in agriculture, yeah, the size of the maps is where -- I would say probably the biggest hurdle.

We saw maps in the EPA's presentation that showed PULAs to protect a certain type of plant that is over Lake Michigan and Lake Superior, right? So it's widely recognized that this is a problem. And if part of the solution is getting from point A to point B with extraordinarily targeted use sites --

or, I'm sorry, sites of the endangered species, obviously, that makes this process dramatically easier to implement and adopt.

I want to bring to the attention -- to the committee and also continue to encourage the EPA to do what they've been doing in regards to aerial application. Our association has asked for more complicated labels. We are actually, in fact, asking for restrictions on pesticide labels. These things that we're asking for are, in fact, very enforceable. Oftentimes, it's simple equipment installations that state-lead agencies can come and look at to see that they are installed and, again, I want to commend the EPA on working with us. We're asking for more publicly.

We recently sent a letter to the EPA since our last PPDC meeting outlining additional equipment changes in the form of nozzles, effective boom lengths, positioning of the spray boom relative to the wing, rotor blades, et cetera, where we can show that the drift coming from a crude aerial application piece of equipment was one magnitude less than the current Tier 1 ground application risk assessment.

Now, I want to point out using Tier 1 for

ground risk assessments is dramatically overestimating drift for what ground equipment is doing. But the point is is that we're now measuring the difference in how the risk assessment is performed and the results of the risk assessment versus what we're able to do by several magnitudes. And it's really important in this particular subject when we're talking about Endangered Species Act compliance, we're asking that those inputs be utilized in these assessments and the associated label language is written. We are already doing many of these things, and for those who aren't, we want them to and we want to make it the law. And it is -- this is all enforceable things.

The last thing I'll comment on is the NAAA is working with a lot of stakeholders and has presented the concept to the EPA on recoding the ag drift model into a more current model, with the long-term goal of actually doing site-specific risk assessment that takes place and label language actually becomes situational based on what's around the actual treatment site itself, what the weather conditions are at the time of application, what rate was used, and then the post-application information gets entered into current software that's used to

dispatch aircraft to then turn around and do a subsequent risk assessment with new restrictions for a subsequent application.

We understand this is a big list. We understand it's many steps beyond what the EPA is working on now, but I think the committee needs to be aware of the concept and aware of the first steps to adopting that type of practice, and that is to update this ag drift model into -- it's like your server, right -- into something that we can then turn into a useable in real-time tool.

So thank you.

JEFFREY CHANG: Okay. Next person, Dawn?

DAWN GOUGE: Dawn Gouge, University of Arizona. Thank you.

John, love it. Totally. I love it. Thank you so much for all of that hard work that the team put in.

I've got a few points. And what you've outlined achieves what EPA has to do to do under ESA. I want to say that first and foremost right after thank you. You know, it certainly forces a more thoughtful, strategic, judicious approach to pesticide application in general.

I was in a meeting when Dr. Al Fournier

from the University of Arizona presented on the Bulletins Two and the information that was shared and it was largely horticulturalists in the audience and the overall feedback that he solicited was, wow, they wanted to know. They wanted to know. They were thrilled to be able to find out and the fact that there was such utility built into the system and it was so easily accessed was remarkably encouraging for me.

I'm an entomologist, I should have also added that at the beginning. I think I did. So keep that in mind.

In many ways, this may alleviate, in some instances, some pesticide resistance issues, in some instances, I understand, and may be supportive of work protection, may be supportive of sustainable practices in general. I think certainly range maps can be finessed and refined over time. In fact, I would just like to say that both the PULAs and the species lists are going to be inherently dynamic over time anyway. And I am absolutely certain that you already have built in some flexibility to account for those changes over time.

So I just think it's a fantastic effort that meets what you're required to do as an agency.

Thank you very much.

JEFFREY CHANG: Before we move on, we'll hear from the rest of the speakers in the room and one person online and wrap it up.

So who was next?

FEMALE: So I'll do this really quicky. I agree with most of the comments and thank you for all the work that's gone in here.

I wanted to add two things. One, Bulletins Live! Two, we have to check that within a six-month period of time, and I just want to point out in Northern Iowa, Southern Minnesota, we don't think in terms of months, we think in terms of growing seasons. So right now, we're checking Bulletins Live! Two. We're making seed decisions. We're working over the winter for our pesticide programs to make sure they're complete and we have products on hand and now extra products in the field, and that gets us to April, which gets the seed in the ground.

And if we would have to check Bulletins Live! Two again and there are changes, that would change our pest program that we've had set out for six months. That causes all kinds of problems. We're in a panic mode. We are trying to get

products in the field that aren't staged, that leaves extra inventory in the field that we want to avoid. So please in Bulletins Live! Two, when you think of the time period to check, think of that in terms of growing seasons and how long that needs to be so we're not making a (inaudible) moment decisions in the middle of our season when we're halfway through.

The other thing I wanted to point out is USDA has recognized certified crop advisors, the NIACC, which are certifications. There's also the licensure in California for PCAs. USDA and RMA and through their technical service provider has already recognized them as experts in the field and just think about what their role is in ESA as far as education, implementation, and consultation in the field for that, because I think they would play an important role in this.

JEFFREY CHANG: Thank you.

Bob Mann?

BOB MANN: Bob Mann with the National Association of Landscape Professionals. I thought I was going to get away with not speaking today, but that didn't happen. Thank you, first of all, for all the presenters today and, you know, the ongoing

dialogue is wonderful to hear.

I have to speak up because -- in response to what Dr. Lame presented at the end of his comments about the subject of preemption. There is media out there that mischaracterizes what our association, in conjunction with several other associations, are trying to accomplish.

And it comes down to very basically this that there was an error or a flaw or an oversight back in 1972 when FIFRA was passed into law. And what we're looking to do is simply to align current policy with what both the House and Senate Agriculture Committees wanted to do as far as who was capable or allowed to regulate pesticides. And in this case, it would be the Federal Government, in cooperation with the state governments. And if you look at it this way, there are some very smart people from many different disciplines working on this problem, not just the ESA, but just pesticides in general.

And we're having a hard time with it. We're making a lot of progress, but this is a very deeply scientific topic. And if we -- our experience -- and this is something that the green industry is very much aware of, is that when you get

down to the lower levels of government, at the local level, the science goes away and people make decisions based upon emotion. And if that is allowed to happen, then progress on something like what Nathan pointed out in his presentation, where you take half a state, a third of a state, and are able to scientifically narrow that down to very discrete areas, all of that progress goes away, because people don't make decisions like that emotionally.

So I just want to make sure that -- Professor Lame, I'm more than happy to go into this much deeper with you if you want to have a side conversation, but I thought that that would be -- I really needed to make sure that I voiced that before we wrapped up for the afternoon.

Appreciate it.

JEFFREY CHANG: Thank you.

Joe?

JOE GRZYWACZ: We're probably going long -- I'm sorry, my name is Joe Grzywacz. I'm at San Jose State University, and as a scientist, I'm about to commit heresy, and that heresy is that EPA apparently was founded on follow the law, follow the science, and be transparent. There's something

missing in that equation because a fundamental part of what we're talking about here is also the issue of will.

As much as I respect -- I come from a farm family, right. So I respect agriculture and agricultural operators, but at the end of the day, it comes down to individual people making individual decisions. And I know that more often than not, at least in some farmworker communities, farmworkers go and not have their required worker protection standard training because there's a quick need to get things out into the field.

And I can't help but wonder whether or not the same thing is going to happen with the Environmental Species Act if we don't recognize that this is a balance of science and human will. And there needs to be those features built into the balancing act of science and human will, and I do think it starts at the level the conversation and discussion and open doors and the opportunity to meet, but we cannot remove the human element because at the end of the day, as was just mentioned excellently -- sorry, my old eyes, I can't see -- Bob.

At the end of the day, decisions are made

by human beings and those humans being are governed by sometimes emotion, sometimes personal need, sometimes personal desires and that's part of the equation that can't be factored out of any given algorithm.

So I just throw that out there because it's the one piece that I haven't heard said yet, but it balances the very conversations of this morning between work protections and those kinds of things with protecting human -- with protecting endangered species. We protect endangered species as a level of risk, but then when it comes to the human health things, then it's more about, well, we're willing to put up with some deaths in that particular case because here it's all about driving the economy.

So I just think it's really important to not negate the importance of human decision-making in how all of this unfolds.

ED MESSINA: And we're good on time, by the way. We have one person who is going to do the public comment period.

JEFFREY CHANG: Jasmine Brown, you're welcome to speak.

JASMINE BROWN: Thank you. Jasmine Brown,

I'm with the Confederated Salish & Kootenai Tribes in Region 8. I'm also the Tribal Pesticide Program Council Chairperson.

And I just wanted to point out when we're reviewing permits and applications, if people aren't putting down a specific time frame of their pesticide use, for endangered species reviews, we have to assume that they are going to use that pesticide in the area all year round and that triggers it to be adversely likely to affect, whereas if -- and I don't know if registrants or anyone wants to consider this on the Bulletins Live! or whatever mechanism they're using. But if they can narrow a time down to three months or two months, then we don't have to view it as they're using all year round.

So that's a way less impact to a species for one month versus 12 months. So I just wanted to throw that out there.

Labels currently, there's very few that have a specified time frame of use on them.

And then the other issue that TVPC was beginning to discuss is all of the AI and farmer apps. Most farms are now using apps for their spraying and record-keeping and even supervision.

They might have a farm in Arizona and various places. They are not being directly supervised within 100 miles because they're being supervised through a phone, which is very limited in supervision of use.

And those are the only two comments I wanted to share with the group. Thanks.

JEFFREY CHANG: Mark Johnson, you're welcome to speak.

MARK JOHNSON: Yes, thank you. I wanted to, first of all, say thank you to the OPP staff on their openness with stakeholder groups, like the turf grass industry. From the beginning, we've said, you know, we're not row crops, the equipment and technology is considerably different and I think you're headed in a direction of collaboration with everything we've done with you these past few months.

For Jan, I guess, at least, one of the things on the public comment slide that I don't think you've listed was the impact to consultations in the areas where, you know, we've already stated growing degree days, growing season, those kind of issues. Would you restate what you are doing, at least in light of any public comments, on those

consultations that would have to take place in order to use products?

And, number two, would you refresh my memory on the herbicide strategy? Is that ag only?

And, again, thank you for working with stakeholder groups as you have. We appreciate it.

JAN MATUSZKO: I'm trying. We're trying to get the microphones to work.

So let me answer your last question first. Yes, the herbicide strategy is for agricultural uses in the lower 48 states only. That's the scope of that one.

The other issue that you raised, I went through those themes very quickly. You're right. We did receive a lot of comments when we proposed -- we proposed that in certain areas, pesticide -- pesticide avoidance as part of the Vulnerable Species, right. And as an alternative to pesticide avoidance, we said folks could have conversations with their local Fish and Wildlife Service as an alternative.

And what we heard back was, well, avoidance really isn't an option for us, so you're basically requiring us to have conversations with the Fish and Wildlife Service and there were

concerns about the resources of the Fish and Wildlife Service to do that and there were also concerns about how that process would work.

So that is a theme that I should have mentioned. So thank you for raising it. It is one that we have been looking at and it is one that we will be discussing in the upcoming -- the Vulnerable Species update we're going to do shortly.

JEFFREY CHANG: Thank you.

We will move towards public comments. We have one person signed up today.

Virna, we will give you the mic and you can speak for three minutes.

VIRNA: Good afternoon. My name is Virna. I am the Vice President for Scientific Affairs at the Northwest Horticultural Council. The NHC represents growers, packers, and shippers of apples, pears, and cherries in Washington, Oregon, and Idaho. Together, our growers produce 70 percent of the apples, supplying 80 percent of the U.S. fresh market, 84 percent of the fresh pears and 74 percent of the fresh sweet cherries grown in the United States. Washington State produces 90 percent of the Nation's organic apples.

These fruit growers in the Pacific

Northwest grow their crops using science and research-based best practices. They perform integrated pest management practices, including scouting crops for pests to determine economic injury levels and economic thresholds.

Before applying pesticides, they follow insecticide resistance management programs by rotating pesticide active ingredients and use precision equipment to allow targeted and reduced pesticide applications. Perennial tree fruit growers also employ various conservation practices, including growing cover crops, using drip irrigation systems, practicing reduced or no tillage in an effort to prevent runoff and erosion of pesticides. Many have created pollinators gardens to support pollinators and other beneficial arthropods in their orchards.

The NHC is very concerned with the recent EPA endangered species pilot project, including the vulnerable species, the herbicide strategy framework projects, and pending future pilot projects that may limit the use and availability of rodenticides and fungicides that may cause growers to abandon production altogether.

We support the continued use of science

and risk assessment regulatory policies, such as those required under FIFRA. Pesticides are important tools for fruit production and are needed in the growers' toolkit against pests and diseases.

Tree fruit growers in the Pacific Northwest want to continue to produce quality and healthy crops, but need to be able to outcompete insects, disease, and weed pests to obtain good crop yields that result in an abundant and affordable food supply forward, while at the same time protecting threatened and endangered species.

We welcome the opportunity for continued engagement with EPA toward that end. Thank you.

JEFFREY CHANG: Would anyone else like to make a public comment in the room? Anyone online would like to make a public comment?

(No response.)

JEFFREY CHANG: Great. A sincere thank you to our workgroup chairs who presented today, to our PPDC members, members of the public who listened in and shared their views, and to all of the support staff that made today's session possible.

We will reconvene at 9:00 a.m. tomorrow using the same Zoom for Government link as today.

That's it for me. Thank you for your

participation today, and I will hand it over to Ed Messina to offer final words and adjourn the meeting.

ED MESSINA: Thanks, Jeffrey.

Just, again, echoing my thanks to the presenters and to our PPDC members for the just lively and informative conversations. I think this is really what makes this meeting so great is the varying stakeholder views that are shared and collaboratively working together and providing feedback to the agency.

So have a good night. Be safe. Have fun, but not too much fun. We start tomorrow morning.

(Day 1 adjourned.)