U.S. Environmental Protection Agency

Farm, Ranch, and Rural Communities Federal Advisory Committee

Public Meeting Notes

January 30–31, 2024

Location: Santa Fe, New Mexico, and virtual

Respectfully submitted by Venus Welch-White, EPA Designated Federal Officer

Certified as accurate by Beth C. Sauerhaft, Chair, Farm, Ranch, and Rural Communities Federal Advisory Committee

NOTE AND DISCLAIMER: The meeting notes that follow reflect a summary of remarks and conversations during the meeting. Such ideas, suggestions, and deliberations do not necessarily reflect consensus advice from the Committee. Formal advice and recommendations may be found in the final advisory reports or letters prepared and transmitted to the agency following the public meetings. Moreover, the Committee advises that additional information sources be consulted in cases where any concern may exist about statistics or any other information contained within the meeting notes.

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About the Farm, Ranch, and Rural Communities Committee

The Farm, Ranch, and Rural Communities Committee (FRRCC, or Committee) is a policy-oriented committee that provides policy advice, information, and recommendations to the EPA Administrator on a range of environmental issues and policies that are of importance to agricultural and rural communities. The FRRCC addresses specific topics of relevance to agriculture as identified by the Agriculture Advisor to the Administrator and reports its policy advice and recommendations to the EPA Administrator through the Agriculture Advisor.

The meeting was announced in the Federal Register; see https://www.govinfo.gov/content/pkg/FR-2024-01-19/pdf/2024-00960.pdf.

Please see appendix 1 for the agenda. See appendix 2 for FRRCC member names and affiliations.

Day 1

Meeting Opening and Welcome Remarks

Beth Sauerhaft, Chair, FRRCC
Rod Snyder, Agriculture Advisor to the Administrator, EPA
Venus Welch-White, FRRCC DFO, EPA

New Mexico Secretary of Agriculture and FRRCC member Jeff Witte welcomed attendees to Santa Fe. Beth Sauerhaft welcomed participants and thanked EPA and others for meeting logistics. Rod Snyder thanked Jeff Witte for his hospitality and shared greetings from Administrator Regan. Venus Welch-White expressed thanks to everyone, as well, and shared the parameters of the public meeting.

Venus Welch-White shared the FRRCC webpage: https://www.epa.gov/faca/frrcc/. She said written comments from the public can be sent to FRRCC@epa.gov. Comments will be accepted until February 14, 2024.

Roll Call

Beth Sauerhaft conducted the roll call.

Barry Berg, present
Brad Bray, present
Emily M. Broad Leib, not present
Don Brown, present
Phillip H. Chavez, present
John R. H. Collison, present
William (Bill) Couser, present
Eddie Crandell, Sr., not present
Michael Crowder, present
Matthew Freund, present
Sharon Furches, not present
Jeffrey Gore, present
David Graybill, present
Jennifer James, not present
Sarah Lucas, present
Lauren C. Lurkins, not present
Nicholas McCarthy, not present
William Thomas (Tom) McDonald, not present
Jeanne Merrill, not present
Christopher Pettit, present
Clay Pope, present
William R. Pracht, present
James Pritchett, present
Nithya Rajan, present
Graciela I. Ramírez-Toro, not present
Lindsay Reames, not present
Charles R. Santerre, not present
Beth C. Sauerhaft, (Chair) present
Raymon Shange, (Vice Chair) not present
Jennifer Simmelink, present
Chantel Simpson, present
Ryan Smith, not present
Stacy Wayne Smith, not present
Jeff M. Witte, present
Amy Wolfe, not present

Venus Welch-White confirmed a quorum.

New Mexico Tour Highlights and Discussion

Beth Sauerhaft, Chair, FRRCC

Beth Sauerhaft asked members for their thoughts on the morning's field trip to Alcalde Research Center, at which they learned about the Center's research and discussed the use of drones in agriculture. Sarah Lucas said she appreciated learning more about water challenges and considerations, as well as climate-friendly agriculture. Dave Graybill said agriculture has always been climate-smart, knowing that there are changes coming that will require adjustments. Beth Sauerhaft said she enjoyed the drone demonstration. Jeff Gore observed that technology is outstripping state laws.

Update on FRRCC Animal Agriculture Water Quality Subcommittee

Rod Snyder, Agriculture Advisor to the Administrator, EPA
Venus Welch-White, FRRCC DFO, EPA
Mae Wu, Deputy Assistant Administrator, Office of Water, EPA

Rod introduced Mae Wu, who came to Office of Water from USDA. Mae Wu said she's looking forward to working on the subcommittee they are putting together on Animal Agriculture Water Quality. They are working through nominations to put together a diverse group of people and hope to meet in late spring.

Venus Welch-White iterated that they are going through the process and are doing due diligence to make sure they have a diverse group of nominees. She said they expect to name subcommittee members in the spring and to hold a first meeting by May, if possible.

Rod said they are looking at adding 15–20 members, and the subcommittee chair must be a member of the FRRCC. He said they are looking forward to having USDA's perspective as well.

Beth Sauerhaft opened the floor for questions.

Bill Couser asked if Andrew Sawyer (Director, Office of Wastewater Management, EPA Office of Water) would be a part of the group. Mae Wu said his team would be involved.

Climate and Water Quality Co-Benefits

EPA 319 Nonpoint Source Grant Program

Katie Flahive, EPA Office of Water
Cyd Curtis CWA 319 NPS Grant Program lead

Katie Flahive introduced Cyd Curtis, the Clean Water Act Section 319 Nonpoint Source (CWA 319 NPS) Grant Program lead.

Cyd Curtis gave an overview of the CWA 319 NPS grant program. She said the 319 grants are crucial to states implementing their NPS programs and improving the water quality of rivers, streams, lakes, and ponds. She said that, at any given time, there may be a thousand programs across the country that are supported by 319 funds. She said that in 2023, they were awarded $182 million, 100% of which goes to states, territories and tribes. She explained that, once Congress appropriates funds, EPA distributes it to the regions, which in turn distribute it to states, territories, and tribes to address their water quality challenges. She explained the role of EPA staff at the various levels.

Katie Flahive said the 319 grants are never enough to allow programs to operate alone, so they urge collaboration to leverage funds. She said at the federal level, EPA collaborates with USDA's Natural Resources Conservation Service (NRCS) on the National Quality Initiative. She said they also work with FEMA on hazard mitigation activities and collaborate through other EPA programs.

Katie Flahive said there is a lot of interesting work involving State Revolving Funds supporting NPS projects, but she emphasized their partnership with FEMA, particularly integrating water quality planning with FEMA's natural hazard mitigation plans and other local climate adaptation initiatives. She said applications for FEMA-related grants must be consistent with hazard mitigation plans, which are updated every five years.

She also mentioned technical support and training that her team coordinates to support NPS programs nationally. She said they offer a broad range of technical support that includes facilitating meetings, putting together technical discussions, and more, providing $200–$400 in contractor TA annually.

Katie Flahive said that CWA 319 NPS grants frequently fund conservation agriculture practices such as conservation easement and nutrient residue management, as well as the potential co-benefits that may be achieved.

She noted that climate change and natural disasters have public health risks and can exacerbate NPS management challenges. She said that nature-based practices can achieve climate resilience, mitigate climate change, and bring water quality co-benefits. She said that lessons from 20 years of watershed studies show that watershed work should be done at a small scale, implementation should focus on critical source areas where there is a high likelihood of response, include landowners, and conduct water quality monitoring and adaptively manage the projects from that perspective.

Katie Flahive mentioned two projects that the NPS program is supporting to help grantees estimate the benefits of NPS programs beyond water quality: conducting a co-benefits systematic literature review to identify methods to estimate environmental co-benefits from nature-based practices often implemented with 319 grant funds, and developing documentation to help NPS programs estimate climate benefits from conservation and nature-based practices.

USDA-NRCS Climate-Smart Agriculture Funding through IRA

Martin Lowenfish, NRCS Branch Chief for Areawide Planning

Martin Lowenfish gave an overview of the Inflation Reduction Act (IRA) and reminded committee members that all funds ($19.5 billion) must be spent by Sept 30, 2031. He explained that the IRA creates no new programs but expands existing climate efforts. IRA funding is authorized for five years and will scale through 2026.

He said the IRA directs NRCS to focus on climate change mitigation, which means reducing greenhouse gas emissions and improving carbon storage. He said no practice can work by itself, so IRA funding can also be used to facilitate a mitigation practice, such as prescribed grazing, which could require stream crossing, fencing, livestock structure, and so on.

He said that although practices are in place to mitigate climate change, they may have multiple co-benefits, such as reducing vulnerabilities and addressing soil health, water quality, air quality, and other concerns. However, he emphasized that practices without mitigation benefits are not eligible for IRA

funding, unless they are needed to facilitate a mitigation practice. He shared a list of NRCS climate-smart mitigation activities, which can be found at https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/climate/climate-smart-mitigation-activities/.

He said that about 83% of IRA obligations and about 93% of Farm Bill obligations benefit water quality (based on an analysis of Hypoxia Task Force states).

Beth Sauerhaft invited questions from the Committee.

Barry Berg said that, regarding the takeaways mentioned by Katie Flahive, his experience is that there is more money available than there are interested practitioners. At the same time, technology has enabled larger watersheds to be more easily handled. He said that funding small scale projects won't make a noticeable impact. Given that EPA is getting reduced funding for 319 programs which reduces personnel on the ground, he asked if it would be better to use technology to work on a larger scale, which is what is needed to address climate change. Katie Flahive agreed that technologies need to be used, and they hope to be able to do some of that through the TA program. She noted that the 319 grant guidelines are under revision, and they were out for public comment at the end of 2023. Cyd Curtis referred to the discussion in the proposed draft of the guidelines and said that HUC-12 may not always be the appropriate scale. Martin Lowenfish agreed that working with technologies on a broader scale is necessary to address big problems and said that National Water Quality Initiative funding is intended to support small, targeted partnerships.

Bill Couser asked if some of the challenges of signing up for the programs have been fixed. He said farmers and ranchers do not get the message that funding is available. Martin Lowenfish said the agency is taking a couple of approaches to facilitate the delivery of the IRA and Farm Bill programs, such as Act Now, which allows for a quick review and contracting. He said they are also doing a lot of internal hiring and partnering with other organizations to ensure sufficient staffing.

James Pritchett said he and Katie Flahive had had a brief email exchange on assessing ROI regarding climate resilience. He asked if benefits and costs could be used to help prioritize projects and to help make more targeted investments. Katie Flahive said that people on the ground implementing the work are already thinking about it. Cyd Curtis added that the 319 grant comes with the expectation that environmental results will be reported, but collecting data on co-benefits can't be an additional burden for the grantee; she said the issue is complex.

Barry Berg said that Big Sioux River Watershed and South Dakota State University are trying to calculate the ROI on buffers compared to what the typical practice was prior to putting that land into a buffer.

Chantel Simpson asked if there were resources to help underserved communities apply for these funds. Cyd Curtis said that that issue was one of the reasons they began revising their guidelines in 2022. They conducted listening sessions with 319 grantees and sub-recipients and learned about barriers to getting funding and advancing equity in the program. One barrier was needing to plan if you don't have funds to plan with. They issued a memo letting recipients know that if they're working with a historically underserved or disadvantaged communities, planning can be considered on-the-ground work. In addition, water quality issues in these communities can begin to be addressed immediately, while the plan is being developed.

Agriculture and Forestry Greenhouse Gas Mitigation Report

Sara Ohrel, EPA Climate Change Division

Sara Ohrel said EPA's Climate Change Division will release a report in the first quarter of 2024 that estimates the future mitigation potential of the U.S. land sector by 2050, including forestry, agriculture, and livestock. She said estimates are not predictions, but it is a look at the future with the tools of today. She said this report will update EPA's 2005 report. She said that this report highlights competitions between resources: limited lands, water, money, and human capital to invest in mitigation opportunities. This approach provides a more cost-effective evaluation of domestic mitigation opportunities.

Updates include moving from one model used in the 2005 report (the forestry and agriculture sector optimization model of greenhouse gas) to include that model plus the global biosphere management model (FASOMGI-plus) and the Global Timber Model, which are well known in the scientific literature. Sara Ohrel said EPA also expanded the scope and made important data updates. She said that this report also includes more mitigation opportunities and activities than the 2005 report.

Sara Ohrel gave an overview of the study methods. She said the baseline used economic drivers from the Energy Information Administration, providing socioeconomic information about the demand for growth for key commodities, as well as key policies. However, they did not include recent policies such as the IRA, Bilateral Infrastructure Law, and so on, nor did it include any additional climate change effects. The study uses 10 greenhouse gas price scenarios to simulate payments for land-based mitigation activities, with five starting CO_2e prices ($5, $20, $35, $50, $100) at two annual growth rates (1%, 5%). She said the model looks at the delta (that is, differences between the baseline and the growth scenarios). She said the models don't use the same input data for every piece of the model, apart from using the same macroeconomic data domestically and globally.

Regarding mitigation opportunities, she said they list opportunities that they have national data sets for, so they do not include some recent or emerging technologies that are still being tested. She said the model accounts for opportunity costs and trade-offs, so that if a mitigation strategy is chosen in one area, the resource would not be available for another mitigation strategy.

As the report had not yet been officially released, Sara Ohrel could share only selected insights. She said that across the tools the land sector remains a net sink, though emissions increase over time. In addition, emissions from agriculture are projected to increase slightly in the baseline. In the greenhouse gas scenarios, she said that the models indicate there are a lot of mitigation opportunities across the sector, and forestry, agriculture, and livestock have key roles to play.

Beth Sauerhaft asked if the study looked at benefits of agricultural land protections, such as easements and avoided conversion to developed land. Sara Ohrel said they have a basic representation of CRP in the tools, but they did not have any increased adoption of easements or land protections, but it could be something they look at in a later study.

FRRCC Ad Hoc Workgroup Status Reports

Water, Energy & Climate Nexus

Michael Crowder

Michael Crowder thanked Beth for her work, and he introduced workgroup members Matt Freund, Jennifer James, Jennifer Simmelink, Bill Pracht, Graciela Ramírez-Toro, Nithya Rajan, and Chris Pettit.

He said their first discussion was on CWA 319 funds, but most of the time was spent discussing solar siting. He said in January they met with David Widawsky (Greenhouse Gas Reduction Fund), Isaiah Drew (USDA), Ethan Winter and Samantha Levy (both American Farmland Trust), and committee member Jennifer James, who spoke about the hard decision on whether to farm the land or take the funds offered from solar companies. He said they also met in January with Tim Hayes (retired from Duke Energy), who pointed out issues such as transmission infrastructure, land suitability, and zoning and permits. He said that the main message from Tim Hayes is that there will be opposition to every site, and every site has pros and cons. He said questions for landowners include rent prices; a decommissioning plan; if there's tile in the field, who would replace it and at what cost; compaction, managing vegetation under the solar arrays, and the generational costs to the farm.

Michael Crowder said they would like to hear from EPA about what authority EPA has on the siting issue, how incentives could be created to avoid putting solar on prime farmland, and how EPA could enhance discussion with developers and power companies to address siting and environmental concerns.

Michael Crowder said the workgroup should have draft recommendation in another session or two.

Barry Berg iterated the importance of siting and said that his brother is working on a project in which solar panels were installed on wetlands in Minnesota, so wires broke when the ground froze. He said the energy produced is used to protect the system.

Phillip Chavez said that Colorado has sited at decommissioned coal plants because the infrastructure is in place. On pastureland, he said they look for production of about 1200 pounds of forage a year. If it's more than that, they say no to the solar project.

Climate Mitigation, Resilience & Adaptation

James Pritchett

James Pritchett thanked workgroup members Barry Berg, Brad Bray, Don Brown, Bill Couser, Jeff Gore, David Graybill, Nic McCarthy, Clay Pope, Sarah Lucas, Charles Santerre, Stacy Smith, Jeff Witte, and Amy Wolfe.

He said the group focused on how EPA's tools and programs can best advance the U.S. agriculture sector's climate mitigation, resiliency, and adaptation goals. He said the group primarily discussed three subjects: (1) CWA 319 grants; (2) UAVs and drones; and (3) emerging pests, biopesticides, and biotechnology.

Regarding CWA 319 grants, he said the workgroup anchored its discussion on EPA's role and how it fits into climate resilience and agricultural systems. He said Cyd Curtis and Katie Flahive] spoke to the workgroup. He said the workgroup will be submitting recommendations that are focused on integrating agricultural systems in rural communities into the guidance document and to identify opportunities to do so, as well as on policy related to system efficiency and collaboration. He said they discussed how under-resourced populations can apply for grants and implement and measure the work, so they are suggesting investments be made to build capacity. Another recommendation is about communicating

the benefits of CWA 319 funding, as well as connecting regional agriculture advisors to the projects on the ground.

On UAVs and drones, James Pritchett said these technologies have an opportunity to cost-effectively address specific pest problems. He reiterated Jeff Gore's point that technology development and modification moves faster than our ability to regulate it. He said that the FRRCC's knowledge of or experience with drone technology is varied, so a next step will be to level up the knowledge, and he is looking forward to presentations on this issue to follow.

He said the workgroup's third area of focus, biopesticides, centered around conversations on biochemicals (nontoxic, naturally occurring substances that control pests); microbial pesticides (microorganism that are active ingredients in pesticides); and changing the plant itself to be more resistant. He noted that this is another area where more presentations are needed for the Committee.

Don Brown said he had been in a workgroup that was disbanded, and some topics they had been working on were dropped. His group had no notice that they would be disbanded, and six months of work was wasted. Beth said she takes responsibility for the way it was handled, but she doesn't believe topics were taken off the table. Don Brown said dropped topics included adoption of state-of-the art technology by medium and small farmers and ranchers, as well as GMO. He added that he is concerned about adding to the workload, especially given that managing the workload was the reason for consolidating the workgroup.

Venus Welch-White said there will be presentations on the following day to bring the whole committee up to speed on the various topics. Don Brown clarified that his concerns are adding new topics and the way the disbanding was handled.

Climate Finance, Social Inclusion & Technical Assistance

Chantel Simpson

Chantel thanked workgroup members Phillip Chavez, Emily Broad Leib, Tom McDonald, Sarah Lucas, Graciela Ramirez, Chris Petit, and Eddie Crandell. She said their group discussed the following:

- Streamlining grant applications and what that can look like for underserved communities
- Use of inclusive language and assistance for vulnerable populations
- Roles between EPA and FEMA in disaster response
- Improving collaboration between state and federal agencies

She said they will share their recommendations on these issue at tomorrow's meeting.

Chris Pettit noted that discussion of 319 grants came out of both of these groups so they can be streamlined moving forward. Chantel Simpson said that the overlap was likely due to the grant review process opening up.

Bill Couser said that the recommendations on agency collaboration, streamlining the applications process, and accessibility and optimization of resources are the easiest to make but hard to implement. He said they will probably be making these same recommendations for the rest of their lives because it is difficult and adds regulatory burdens that no one likes to deal with. Chantel Simpson said the workgroup discussed ways to make it as easy as possible.

Sarah Lucas said there were challenges finding examples about what works to show agencies they don't have to recreate the wheel.

Jeff Witte said that, finally, this week federal agencies published a one-pager on who does what in an emergency response. He said agencies need to do an after-action analysis to figure out how to work together effectively.

Day 1 Wrap Up

Beth Sauerhaft said she hoped committee members will have read through the meetings documents and noted where there is overlap. She said she has asked Chantel Simpson and James Pritchett to look at the versions tonight and remove duplication. She said she hopes to be able to email the revised draft to committee members later in the evening so that they are familiar with it, and Chantel Simpson will be able to discuss tomorrow how the drafts were integrated.

Beth Sauerhaft said as they prepare for future meetings, they can plan time to develop recommendations in tandem.

Venus Welch-White said the FRRCC charter was renewed for another two years. She gave a preview of the agenda for tomorrow.

Beth Sauerhaft adjourned the meeting.

Day 2

Roll Call

Beth Sauerhaft conducted the roll call.

Barry Berg, present
Brad Bray, present
Emily M. Broad Leib, not present
Don Brown, present
Phillip H. Chavez, present
John R. H. Collison, not present
William (Bill) Couser, present
Eddie Crandell, Sr., present
Michael Crowder, present
Matthew Freund, present
Sharon Furches, not present
Jeffrey Gore, present
David Graybill, present
Jennifer James, not present
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Nithya Rajan, present
Graciela I. Ramírez-Toro, not present
Lindsay Reames, not present
Charles R. Santerre, not present
Beth C. Sauerhaft, (Chair) present
Raymon Shange, (Vice Chair) not present
Jennifer Simmelink, not present
Chantel Simpson, present
Ryan Smith, not present
Stacy Wayne Smith, not present
Jeff M. Witte, present
Amy Wolfe, not present

Venus Welch-White confirmed a quorum.

Role of Innovation in Technology in Climate-Smart Agriculture

Drones/Unmanned Aerial Vehicle (UAV)

Amy Blankinship, EPA Office of Pesticide Programs, Environmental Fate and Effects Division
Katrina White, EPA Office of Pesticide Programs, Environmental Fate and Effects Division

Katrina White shared information on relevant statutes that affect EPA's work. The Federal Insecticide, Fungicide, and Rodenticide Act gives EPA authority to regulate the sale, use and distribution of pesticides. Among other requirements, registrants must show that using the pesticides does not cause unreasonable adverse effects on the environment or is contrary to standards set under section 408 of the Federal Food, Drug, and Cosmetic Act.

The Food Quality Protection Act of 1996 requires EPA to consider aggregate exposure and cumulative risks, consider protection of children. The Pesticide Registration Improvement Act of 2003 created timeframes for completion and registration actions.

Katrina White said that emerging technologies can help reduce exposure, allow for applications in difficult-to-reach areas, and reduce waste. She said EPA is also interested in how emerging technologies can assist compliance with the Endangered Species Act.

Katrina White shared information from the Emerging Technology workgroup of the Pesticide Program Dialogue Committee (PPDC). She said the workgroup identified two main types of emerging technologies: (1) hardware, which includes drones, ground robots, etc.; and (2) and data analytics, which includes maps, AI, GIS technology, and so on. She said that one of the committee's charge questions in 2022 and 2023 focused on evaluating the offsite movement of releases by unmanned aerial systems or drones (including UAV type and spray systems), and best management practices and use conditions. The PPDC's final report was published in 2023.

Katrina White said that EPA seeks to understand the exposure and potential risks for humans and the environment of pesticides applied with emerging technologies. Risk assessments include exposure and transport pathways. EPA also wants to identify parameters that can influence exposure and understand how exposure and risk relate to the current risk assessment methos. EPA can then develop standards for using these technologies and develop a regulatory framework to support their use. She said understanding how to regulate emerging technologies could be fast tracked if EPA could establish that using the emergent technology would result in equivalent or less risk or exposure.

Regarding unmanned aerial systems (UASs) specifically, Katrina White said EPA does not have established policy regarding pesticide applications, data requirements, or implementation on pesticide labels. Nor does EPA have an established risk assessment framework or approved model to evaluate drift from emerging technologies such as UASs. The agency's priority is to understand exposure considerations and how exposure compares to existing application technology.

In the meantime, she said, pesticides can be applied using a drone as long as the following conditions are all met:

- The product label does not prohibit aerial application or limit application to only a specific type of aerial application or to only ground application.
- The drone application rate will be consistent with the application rates provided on the product label.
- The application complies with all other directions for use and safety and precautionary language requirements.

Katrina White said that potential challenges for UASs include working through numerous safety, implementation, and regulatory compliance issues. Potential benefits include better resource managements, targeting pesticide and nutrient applications, reductions in greenhouse gas emissions, and reduced soil compaction/increased soil health.

Katrina White said that the Office of Pesticide Programs continues to work on these issues in coordination with PPDC, the Organisation for Economic Cooperation and Development, and other stakeholders.

Matthew Freund asked why the FRRCC is doing work that appears to be done by the PPDC. Beth Sauerhaft said they needed the presentation to learn about PPDC activities to determine whether there was an overlap. Dave Graybill noted there was some overlap. However, regarding labels, he said that the pesticide has already been vetted by EPA, so he was unclear about why the label was a concern in the application method. Katrina White replied that the application method can change how the pesticide lands on and covers the foliage and comes into contact with the soil, which can impact efficacy—but

that is only one component EPA needs to understand. Amy Blankinship added that drones use smaller tanks, so there is a concern about more concentrated applications.

Don Brown asked if states have been informed of the three conditions (see above) for applying pesticides with drones. Amy Blankinship said it is an interim policy and it has been shared with states; ultimately, she said, states decide for themselves if they want to approve a particular label or application method. She said it is not formal guidance. Some states, such as Kansas, have issued statewide guidance on UAVs.

Beth Sauerhaft asked Climate Mitigation, Resilience & Adaptation workgroup members if they had questions that were not answered by the presentation. Don Brown said his primary concern is that the states needed guidance on this issue. Dave Graybill said another concern of the workgroup was the label itself and the need to make labels available digitally.

Brad Bray asked if the PPDC is working with other agencies, such as FAA, and USDA. Katrina White said that they certainly work with USDA and are in touch with FAA and several other stakeholders on many fronts. Amy Blankinship added that USDA is doing field trials with leading experts, and they are in close contact with them.

Jeff Gore asked if EPA had checked in with registrants to see if they had any concerns about using drones to apply their products. Amy Blankinship said yes, they are a major stakeholder and are doing offsite drift studies in the United States and elsewhere, as there is international interest in the issue. She said they are developing BMPs, as some parts of the world, particularly in Asia, are 15–20 years ahead of the United States in some aspects of using drones in agriculture.

Gene Editing, Biopesticides & Emerging Technologies

Rubella Goswami, USDA NIFA, Director for the Plant Protection Division
Mike Mendelsohn, EPA Office of Pesticide Programs, Biopesticides and Pollution Prevention Division (BPPD) Emerging Technologies Branch

Rubella Goswami gave an overview of the National Institute of Food and Agriculture (NIFA) and how the Institute is addressing climate change. She said climate-smart agriculture is important to the NIFA. She explained that NIFA is the primary extramural funding arm for USDA. They invest in research, education, and extension, and work very closely with the land-grant university system as well as with other federal agencies. NIFA programs cover an array of areas, including advanced technologies, farming and ranching, human sciences, food science, business and economy, and more.

Rubella Goswami said that combating climate change is the institute's first strategic goal, and each agency has a national climate action plan to reach goals, including Climate-Smart practices. NIFA's agency-wide priority team approach seeks to address knowledge gaps and opportunities, spur innovation and accelerating change, empower individuals and communities, and support synergies across priorities and programs. She said that NIFA's climate budget has increased to support the work, from under $40 million in grants in 2020 to nearly $80 million in 2022. She said they have made a huge effort to bring in minority-serving institutions, tribal colleges, HBCUs, and Hispanic-serving institutions.

Rubella Goswami said that NIFA has competitive programs that support climate-smart agriculture and forestry. The four big programs specifically addressing climate change include sustainable agriculture

systems (core research and extension and education), USDA climate hubs partnership, rapid response to extreme weather events, and future-proofing plants to a changing climate (international collaboration; multidisciplinary research program). Future-proofing plants includes a gene editing program conducted in collaboration with partners from Great Britain and Germany. Rubella Goswami emphasized that these four major initiatives do not comprise all of NIFA's climate-related activities. She said they have webinars looking at these various programs and how people can apply for funding, and she could provide the link if the committee is interested. These webinars are available on their YouTube channel, as well.

Rubella Goswami then shared examples of funded projects. There is a data gateway to list of projects. She said gene editing, especially CRISPR/cas9, has been around for about 10 years and it was revolutionary. She said where at first it could replace one gene at a time, now science is at a state in which they can replace a gene and change gene expression. She said one project with the College of Agriculture and Natural Resources, University of Maryland is looking at replacing a gene and upregulating another gene at the same time. She said this combination technology allows the removal of the gene that, say, would make a plant susceptible to blight, and at the same time upregulate a gene to increase seed production. There is supporting work to understand the risk of gene-editing tools, and unintended effects, issues relevant to regulators. A few projects address the molecular aspects that help in climate resilience—gene analysis to look at interactions between plants and pathogens; developing climate-smart crops, nutrient response as we change CO2 levels or increase in temperature. She shared another example involving research that looks at the plant microbiome and interactions with the environment to identify genes that can make drought-tolerant plants.

Another technology involves developing universal intelligence spray decision control systems, using these decision control systems with existing sprayers and making more targeted, less environmentally threatening sprays—laser guided controllers for the field and greenhouse. There is reduction in spray drift. Smart Guided Systems LLC. commercialized the intelligent spray system and released it into the market. She also briefly shared a project to address citrus greening, which has reduced production more than 75% across the country and resulted in an emergency citrus disease research and extension program. The strategies and tools (e.g., symbionts) they are developing can be easily translated to other programs and disease and pest issues.

Mike Mendelsohn said his presentation would focus on emerging technology pesticides. He said these technologies are produced through agricultural biotechnology, which operates under a coordinated framework involving EPA, FDA, and USDA. There is some overlap between 3 agencies for some products, specifically with genetically engineered plants and microbes He said there are a variety of emerging technology pesticides that they oversee:

- Genetically engineered plants (EPA involved in plant incorporated protectant (PIP); pesticide trait and genetic material necessary for its production; proteins and the genes necessary for protein production to control pest insects)
- Genetically engineered microbials (bacteria, viruses); citrus greening can be controlled-- EPA has an experimental use permit for this work—with a genetically engineered natural virus that produces a natural peptide from spinach that kills the bacteria that causes citrus greening
- Microbial pesticides introduced into mosquitoes (e.g., Wolbachia products); sterile insect methodology and release; offspring with native population of mosquitoes don't produce viable offspring
- Genetic modifications in pest animals (e.g., GE mosquitoes) for use as a pesticide

- Externally applied (double stranded) dRNA "sprayable" products; RNA interference mechanism; mode of action is that they silence a gene in the pest
- Certain engineered peptides and proteins to provide protection against plant disease and insect control

Mike Mendelsohn said they recently registered a product to control the Colorado Potato Beetle (CPB) sprayed on potato plants as a regular pesticide would be, but it works via RNA interference, a natural mechanism used by plants and animals to protect against disease (this particular pesticide targets and silences a key Colorado potato beetle house-keeping gene needed to produce the PSMB5 protein for keeping the CPB alive, without resulting in a genetically modified organism). He said such technologies can replace more toxic chemical base pesticides and provide additional tools that target specific genes in pests. In addition, they can be developed more quickly than conventional pesticides. This RNAi-based pesticide is the first sprayable dsRNA pesticide in the world allowed to be used commercially and sprayed on plants.

He said that EPA recently put forward exemptions for certain plant-incorporated protectants (PIPs) derived from genome-edited types of products (CRISPR-based products) that are equivalent to what can be accomplished through conventional breeding. This rule provides exemptions from FIFRA registration and FFDCA tolerance requirements for PIPs in which genetic engineering has been used to insert or modify a gene to match a gene found in a sexually compatible plant or in another cultivar (e.g., fungal resistant gene in barley inserted into commercially available cultivar); and loss-of-function PIPs in which the genetically engineered modification reduces or eliminates the activity of a gene, which helps make the plant resistant to pests (e.g., knockouts). He said that the exemption includes a notification process to increase transparency and public confidence in the products.

Mike Mendelsohn said that they have received four notifications August 2023–January 2024. They were all loss-of-function PIPs, which makes them exempt from needing to register the product and the tolerance requirements. He said that they hope that, as the regulated community becomes more familiar with these exemptions, more products will become eligible, and developers will take advantage of the exemptions.

Mike Mendelsohn concluded by saying that EPA is planning on providing clarity on what constitutes plant growth regulator PIPs, and they're also working on developing additional PIP exemptions. EPA hopes to make more information public this year.

Bill Couser said that tools coming down the pike haven't been cleared yet, and he wondered what is meant by speeding up the timing for that. Mike Mendelsohn replied that he was referring to the RNAi products, but it applies to PIPs as well; the amount of information needed to do risk assessments is considerably less for these types of products, and the review period is shorter. This supports rapid development of these products and making them available to farmers and ranchers. Mike Mendelsohn said that on the exemption side, an electronic submission of a self-determined loss of function exemption helps speeds up the process.

Jeff Witte said that the workgroup initially discussed the prohibitive cost of registering any type of new biotechnology product. Mike Mendelsohn said there are some exemptions from PRIA fees, such as for government and state agencies (California state university system applies as well as others). He emphasized that the amount of data that needs to be generated is significantly less than what would be required for a conventional chemical applied on a food crop.

Dave Graybill asked why the information requirement is lessened and asked if it was related to endangered species. Mike Mendelsohn said yes, and less risk to human health, as well, as many are naturally occurring proteins.

Don Brown mentioned that backlash that occurred with GMO because the community was not kept abreast of developments. He said image is important, and he asked for EPA's approach. Mike Mendelsohn mentioned the FDA's "Feed Your Mind" initiative, which describes biotechnology and food. He said there are focus groups with consumers and other ways to get the work out. He said Congress gave the FDA about $7 million to work on communications about biotechnology and food. He said many NGOs are taking a closer look at the issue instead of simply opposing biotechnology.

Solar Siting Considerations

Ethan Winter, American Farmland Trust, National Smart Solar Director
Samantha Levy, American Farmland Trust, Conservation and Climate Policy Manager
Rusty Rumley, National Agricultural Law Center, Senior Staff Attorney
Aliza Drewes, USDA Rural Utilities Service, Senior Advisor

Samantha Levy said that American Farmland Trust (AFT) studied the quality of farmland across the United States and found that from 2001 to 2016, 11 million acres had been converted to urban, highly development and low-density residential development. She added that the Department of Energy released a study in 2021 that projected that, to decarbonize and electrify the grid by 2050, the United States would need more than 10 million acres put into solar, about 90% of which will be in rural America. She said that AFT models suggest that, without policy intervention, 83% of new solar development will be on farm and ranchland, and nearly half of that on the most productive, versatile and resilient farmland. In addition, she said, solar arrays are increasingly utility scale.

Samantha Levy said benefits include landowner lease payments, as well as tax revenues that can support community roads and schools. Challenges include pulling a lot of prime farmland out of production, developers who can out-compete farmer renters, and the impact of large-scale solar on the overall farm economy and related services. She said there may be some opportunities for agrivoltaic arrays, in which solar and agricultural production share the same land.

Samantha Levy said three issues are halting climate action. First, according to the DOE, about one-third of utility-scale wind and solar siting applications submitted over the last five years were canceled. Second, roughly half of wind and solar projects experienced delays of six months or more, according to the findings published by the Energy Department laboratory. And finally, in a recent study analyzing why proposed utility-scale renewable energy projects were delayed or stopped between 2008 and 2021, land concerns were the most frequently cited reason, with concerns over "non-monetary" impacts, including land use changes from agriculture to industrial use, arising in 82% of cases. She said it's important to address these issues to get these projects built.

She said AFT's approach to doing so is via four Smart Solar principles:

- Siting: Prioritize siting on the built environment, contaminated land, and land not well-suited for farming.
- Soil and Water: Safeguard the ability for land to be used for agricultural production.

- Agrivoltaics: Expand the use of agrivoltaics for agricultural production and solar energy on the same land.
- Shared Benefits: Promote equity and farm viability in siting and permitting decisions.

Samantha Levy said there are roles for federal state, and local actors. Federal roles are primarily to invest in research and provided technical guidance. State roles also include funding research, as well as identifying best practices, providing resources to support local decision making, and passing legislation to advance Smart Solar. Roles at the local level are planning, incorporating Smart Solar into permitting, setting standards, and negotiating community benefit agreements to mitigate impacts.

She shared the following federal-level recommendations:

1. Institute an Inter-Department Smart Solar Working Group
2. Provide Funding and Trusted Technical Information
3. Invest in a Strategic Research Plan to Advance Smart Solar
4. Model Smart Solar Project Awards with Federal Funding
5. Encourage Community Benefit Agreements that Mitigate Farm Impacts
6. Promote Growth of Agrivoltaic Arrays
7. Apply the Farmland Protection Policy Act (FPPA) to Utility-Scale Solar Development
8. Support Low-and Moderate-Income Ratepayers

Next, Rusty Rumley, Senior Staff Attorney for the National Agricultural Law Center (NALC), said that the NALC is federally funded, so they do not lobby or provide advice, but simply provide information.

Rusty Rumley said that feelings about solar development are regional, with many the Midwest and northeast more resistant to industrial scale solar farms than those in the south and the west. The issues impact even those landowners who are not leasing their land. He said in 2022, pasture rental rates in Texas were about $7.70 per acre; in contrast, he had heard from one landowner who was offered $2,500 per acre for 25 years from a solar developer. He said agriculture cannot compete with solar rental rates.

He said solar developers are looking for a lot of sun on flat ground, with well-drained soil, and proximity to high-voltage transmission lines with excess capacity. He said this will likely expand as time goes on.

Rusty Rumley said that early on, statutes focused on capturing tax revenue. Zoning laws are much spottier and are dependent on the state. He said that considerations for zoning for solar could include options such as excluding solar siting on land that has the best soil for agriculture, access to land for new farmers, and decommissioning—that is, what happens to the land when the solar project ends. He said typically landowners are not the ones doing the negotiations; it's left to states to pass laws.

He also mentioned dual use of land, such as grazing sheep under solar panels or growing row crops, which requires planning ahead to incorporate any needed specialized infrastructure. He said there are still a lot of challenges with agrivoltaics, which will take time to work out.

Aliza Drewes, Senior Advisor at USDA Rural Utilities Service (RUS), said that RUS has IRA funds for renewables in rural areas. She said they are very concerned about ensuring farmers have all the economic opportunities possible for them. She said RUS recently held listening sessions for (1) agricultural producers; (2) energy producers;(3) state and local government siting-oriented organizations; and (4) the general public. They are working through the input from those sessions. She

said one recommendation is doing a Community Benefit Plan to help mitigate impacts on farmland. She shared that one theme of the listening sessions was a strong concern about protecting prime farmland and prioritizing nonprime farmland for solar siting. However, there is not clear mechanism for doing that or any direction from Congress. She said they are working with DOE on the issue.

Aliza Drewes also shared that listening session participants also expressed concerns about eminent domain. Although this is a state-level issue, she said, it is affecting the field as a whole. Regarding photovoltaics, she said agricultural and renewable energy producers disagree on whether the technology is viable at this time. She said there is R&D occurring on the possibility of dual use with row crops, but much more needs to be done.

She said other issue that arose during the listening sessions were decommissioning and whether a solar array would change the classification of soil from farmland. Another issue was whether neighbors would be fairly compensated. Finally, she said there have been a lot of requests for USDA to share facts and figures.

Ethan Winter, National Smart Solar Director for American Farmland Trust, added that EPA's Solar for All program is an example of alignment with Smart Solar principles, creating democratic access to solar for low- and moderate-income customers and communities. He said these small projects often fit on a portion of a farm, and AFT is interested in seeing how that can be a way for producers to diversify without allowing solar to take over the landscape.

John Collison said that in the early days of the wind industry, companies failed, and left farms ruined. He asked whether that was occurring again in the solar industry. Rusty Rumley said he hasn't heard near as many of these stories with solar as with wind, but solar has only become competitive in the last 10–15 years, so we may not know yet. John Collison asked how transmission could be sped up through the legislative process once projects are in place. Aliza Drewes replied that without transmission, the project could not be developed. She said that DOE is putting a lot of effort into this, from increasing capacity of current lines to laying new lines. She said there is also attention paid to expediting permitting. Rusty Rumley added that even prior to negotiating a lease, a lot of work has to be done, such as preselling the power, getting environmental permits, figuring out transmission lines, and so on. Ethan Winter added that, where there is transmission capacity, there are a lot of projects springing up. Samantha Levy said that where transmission crosses state lines, it's a decision for the federal government.

Sarah Lucas said that in Michigan, the state pre-empted local approvals on renewable energy, so communities do not have a say on where these projects are implemented. She asked if anyone had advice for those communities. Samantha Levy said that it happened in her state (New York), as well, so they became engaged in writing comments and building relationships. She said that when the law was passed, there was a legal battle, which was decided in favor of the state. Aliza Drewes added that good neighbor agreements and Community Benefit Plans are mechanisms for getting local voices heard.

Bill Pracht said that, in Kansas, a third of the projects get cancelled, but until then, they plug up the process, which takes so long that some projects never get built. Aliza Drewes said that FERC has updated their rules on that, and state that projects with financing in place may jump to the front of the line to reduce backlog.

Brad Bray asked Rusty Rumley why a solar developer wouldn't just purchase land rather than lease it for $2,500/acre. He also asked if solar panels end up in landfill after they are decommissioned. Rusty

Rumley said companies almost never want to buy land because it would entail a large up-front cost and bring responsibilities of dealing with the land. Regarding panels, Rusty Rumley said the panel life is 25–30 years, and they are trying to come up with ways to recycle them. Aliza Drewes said that DOE has found that the overwhelming majority of solar panels could be recycled, but that doesn't mean they are.

Bill Couser said that farmers can't compete with the monies offered by renewable developers, and he asked what happens when the country starts to go hungry. He said in Iowa, farmer is pitted against farmer. Aliza Drewes acknowledged the difficulty and said that if we are to achieve our climate goals, we need significant infrastructure very quickly. At the same time, topsoil is not replaceable, and we need to feed a growing world population. Rusty Rumley said that solar development can be used to preserve farmland if the alternative is to build a subdivision. Samantha Levy noted that New Jersey set caps on how much land could be put into solar.

Status of Biofuels Tax Credits in the Inflation Reduction Act

Benjamin Hengst, EPA Deputy Director, Office of Transportation and Air Quality

Benjamin Hengst explained that sustainable aviation fuel (SAF) is a substitute for petroleum-based jet fuel produced from renewable or waste resources, primarily fats, oils, and greases, vegetable and soybean oils, and so on. He said that these will remain the primary feedstocks up to 2030, after which new technologies will be in place.

He said that numerous federal programs support SAF expansion, including ICAO-CORSIA, RFS, and IRA tax credits. He said the IRA has two provisions directly relevant to the production of sustainable aviation fuel: Section 40B, which is valid 2020–2024, is dedicated to sustainable aviation fuel. The second one, Section 45Z, valid 2025–2027, is a clean fuel production tax credit, which applies to SAF and other clean fuels. He said that 40B offers $1.25–1.75 per gallon tax credits, based on whether the fuel generates a minimum of 50% greenhouse gas emission reductions across its lifecycle compared to conventional petroleum jet fuel. Lifecycle emissions calculated from feedstock production to engine combustion. He said a lot of attention now is focused on how Treasury will calculate emission footprint across the lifecycle of the fuels. He said Treasury put out guidance in December 2023 that explained the two ways that SAF producers could demonstrate eligibility for a tax credit. He said that on March 1, 2024, a new version of the model will be released.

Phil Chavez said that the tax credits end in 2027 and producers want assurances that these will be long-term programs. He said no ethanol plant in the country can make SAF from ethanol because they don't have 50% greenhouse gas emissions reductions on a life cycle basis compared to conventional jet fuel, and they can't get there without carbon sequestration (e.g. class VI well). Benjamin Hengst agreed that the investments were significant and said extending the program is up to Congress.

Bill Couser said that they have 42 community-owned ethanol plants in Iowa, and until the pipeline is in the ground it's going to be difficult for the plant to qualify for the tax credits. He said ethanol imports from Brazil are looming. Benjamin Hengst said the White House is focused on ensuring the domestic industry is built. Rod Snyder added that they are trying to figure out how to build the domestic industry while also maintaining scientific integrity on measuring greenhouse gases. Bill Pracht observed that California won't allow the use of E15 gasoline and won't accept the Argonne GREET (Greenhouse gases, Regulated Emissions, and Energy use in Technologies) model. He added that a Canadian firm invested $900 million in a renewable diesel facility in Kansas that small community plants can't compete with.

Bill Couser asked Benjamin Hengst to take these concerns back to his team. He thanked EPA for the opportunity to be at the table. He said farmers and ranchers helped build the country, and they want to make sure it's there for their children.

Rural Equity and Technical Assistance

Environmental Justice Thriving Communities Technical Assistance Centers

Patricia Sullivan, NMSU Associate Dean for Outreach & Recruitment

Patricia Sullivan said that the Thriving Communities Technical Assistance Centers (TCTACs) were established by executive order to address environmental justice. The centers look at clean energy, affordable sustainable housing, workforce development, remediation in legacy pollution communities, and water infrastructure. She said a lot of what they do is help communities get federal funding.

Patricia Sullivan said that the South-Central Environmental Justice Resource Center is the TCTAC for Region 6, which covers New Mexico, Oklahoma, Arkansas, Louisiana, and Texas. They partner with several non-profit and academic entities in the region to provide services. Their focus areas are grant assistance, building leadership capacity, increasing access to technical assistance, and community engagement. She said they are working to build a partnership network to identify resources available in geographic areas and to identify gaps. They connect communities with technical resources available through the partners, and they also connect communities with eligible Justice40 applicants.

On building leadership capacity, Patricia Sullivan said her TCTAC will be working with business and organizational leaders and community development leaders/elected officials in a year long, virtual program to help them understand the importance of environmental and energy justice and how to build equity in their workplace practices. She said on the business side, 20 organizations or businesses with up to eight individuals each can participate, and applications will be announced soon. On the community development side, the program is a legacy program developed at New Mexico State in partnership with the Attorney General's Office and others and will be focused on ethics in government.

On the work of connecting technical resources to support rural, remote, tribal, and disinvested communities, they have academic partners across the region, as well as Sandia National Laboratories and Los Alamos National Laboratory.

Patricia Sullivan said the TCTAC is also involving the philanthropic community and the national TCTAC program. She said they are working closely with the National Indian Tribal Health Board to coordinate tribal engagement across the five states in terms of the technical assistance they provide.

Patricia Sullivan shared their website (https://scejrc.nmsu.edu/index.html) and said they are accepting TA requests. She said they are still building their staff and have a portfolio of about 15 communities, two of which have already received funding.

A member asked about the biggest challenges they've had getting the word out and letting people know what they're doing. Patricia Sullivan said staffing.

Sarah Lucas said that she has found that, although conversations start off about lack of grant expertise, many communities with these concerns don't have a project that's eligible for a grant they would like to write. She asked how the TCTAC develops a pipeline of projects. Patricia Sullivan said that is a problem they are seeing, as well.

Eddie Crandell said he appreciated seeing the ethics training. He said many NGOs and other entities know the problems that exists in small rural counties and tribes, but they never solve it.

Beth Sauerhaft asked if TCTACs were only to help communities access IRA funds. Patricia Sullivan said they are funded out of a partnership between DOE and EPA, and they have specific parameters they must work in. For example, she said, DOE does not allow them to review or write proposals, whereas EPA allows them to review proposals from a peer perspective. She said they can go after any funding, not just IRA funding.

Phil Chavez asked about the intake form. Patricia Sullivan said that people just send an email.

Rural Partners Network Updates

Michael Rivera, New Mexico USDA Rural Development

Michael Rivera said that Rural Partners Network (RPN) was conceived by President Obama and implemented by President Biden. In New Mexico, RPN has existed since 2022, and they work to create jobs through infrastructure, development, and community improvement. He said they go to communities to identify areas of need, then they identify partners that should be a part of the solution. They bring partners together to identify areas of opportunity to address the community need. He said the objective of the RPN is to create access to economic development resources in small communities. Economic development is a big challenge in rural areas because there is not a lot of infrastructure or large tax revenues. He said RPN is the federal government's "boots on the ground."

Michael Rivera said that through community engagement, RPN helps build trust between the federal government and small communities by helping local leaders navigate government systems. He said that RPN's federal agency partners liaise with RPN through Rural Desk Officers, who share information about funding opportunities and other resources. He said that PRN New Mexico was one of the first RPNs in the country, and it has three networks in the state. He said RPN's community liaisons have 37 projects.

Michael Rivera shared several projects from the three networks. One project of the Northern New Mexico Community Network was a response to the wildfires that devastated northern New Mexico in 2022. Michael Rivera said that the RPN made a response to that fire its signature project because so many people, lands, and watersheds were affected. He said one RPN liaison is Western New Mexico University, with whom they are working to develop a trade center to teach the trades, such as electrical, welding, and plumbing, which the region badly needs.

Michael Rivera said that more information can be found at their website (https://www.rural.gov/), including a quarterly newsletter. He said that in an upcoming forum, they will discuss childcare, transportation, and infrastructure and capacity building, which have been identified in community meetings and focus groups over the years as large challenges related to workforce development.

Sarah Lucas asked about the scale of the community work, such as the visioning and planning process. She also wanted to know if the community liaisons were facilitating these community meetings. Michael Rivera said the RPN national office has contracts with technical assistance providers, who facilitate the community meetings. They also work with other organizations, depending on the area they need to address.

Matthew Freund asked how EPA intersects with RPN. Venus Welch-White said the role of EPA headquarters is to understand what they need and what the Agency can contribute.

Working Lunch: Discussion and Consideration of Workgroup Recommendations

Beth Sauerhaft, Chair, FRRCC
Venus Welch-White, FRRCC DFO, EPA

Stephen Baca from the New Mexico Department of Agriculture spoke briefly about the pesticide compliance program. He said New Mexico agriculture goes back a long time; watering systems built hundreds of years ago are still used. He said that the state is currently putting together changes for a proposed certification and training program, which will include some direction on the use of drones in agriculture. He said drones are used for invasive species surveys, applying fertilizers, precision agriculture, and watering. He said one issue he believes will come up more frequently is drones and right of way. He said as farms are broken up into smaller fields, drones will be ideal.

Beth Sauerhaft explained that James Pritchett and Chantel Simpson will summarize their workgroup's recommendation, and they will look at the changes made to consolidate the recommendations. She said that after they review the documents, they will vote on the recommendations.

James Pritchett went through the workgroup's original six recommendations. Chantel Simpson said that she worked with James Pritchett to consolidate them. She said they found that Workgroup 3 (Climate Finance, Social Inclusion, and Technical Assistance) had two standalone recommendations:

> **Recommendation:** To improve efficiency in funding implementation and to avoid redundancy in project funding, we recommend amending existing funding guidance to provide greater flexibility to states in funding implementation, as well as more clearly delineate the broader federal areas of jurisdictional authority while recognizing the ability for federal regional agency staff and state agencies to retain greater authority over how funding is targeted to local and regional needs, particularly when an equivalent and complementary state program is in place.
>
> **Recommendation:** To best utilize the availability of data collected as part of program implementation, we recommend that EPA utilize existing research agreements with sister federal agencies and increase coordination with state agencies to increase and better target funding for research necessary to demonstrate the effectiveness of existing programs, suggest areas of potential improvement in efficiency or effectiveness, propose combination of programs to better achieve coordinated watershed outcomes, and to integrate emerging artificial intelligence analyses into greater watershed planning and program implementation.

She said the combined recommendations are as follows:

> **Recommendation:** EPA develops and implements a field based, computational method for determining the return on investment (ROI) of CWA §319 funds that includes measures of the long run resiliency of agricultural systems. The effort will include a web-based portal for submitting project data and sharing ROI information. Implement watershed monitoring to collect data for utilization in modeling to consider financial impacts of environmental inputs.

Chantel Simpson said the last sentence to the recommendation above was supplied by workgroup 3.

Recommendation: EPA provide supplemental (plus-up) funds for approved state NPS programs with the following considerations:

- State recipients of supplemental funding substantiate a shortfall in available funds relative to submitted proposals in their jurisdiction,
- State recipients demonstrate how supplemental funding addresses goals for climate resiliency of agricultural systems and rural communities,
- State recipients measure the return on investment (ROI) for plus-up projects with a systematic data gathering and monitoring approach.

Chantel Simpson said there were no changes to the above recommendation.

Recommendation: EPA revise its Section (§) 319 guidelines to create a pre-application process and to offer technical assistance grants that build capacity in disadvantaged communities that lack sufficient funds for proposal development, implementation, data gathering, management, evaluation of effectiveness and reporting.

Chantel Simpson said the above recommendation included the addition of language on the pre-application process as well as on "management, evaluation of effectiveness."

Recommendation: EPA revise guidance for updating state nonpoint source management programs (Chapter 3 and Appendix A of the Draft Guidance Document) to:

- Elevate climate resiliency of agricultural systems in the planning and review process at the state level; to create a holistic approach to watershed restoration and protection
- Include regional agricultural advisers in the review process.
- Engage and incentivize local governments and stakeholders in outcome evaluation and revision of state nonpoint source management programs.
- Encourage the regional administrator and staff to complete on-site review of NPS projects alongside local stakeholders when NPSMPs are updated

Chantel Simpson said the recommendation above had no changes.

Recommendation: EPA allow federal funds from non-EPA sources to be considered as an acceptable source of matching funds that qualify for an exemption to the 50% watershed project funding allocation requirement.

Chantel Simpson said this recommendation also had no changes.

James Pritchett shared recommendations specific to his workgroup, and Chantel Simpson shared recommendations specific to her workgroup.

The workgroup discussed the full draft of the recommendations and voted to accept them, with changes noted.

Public Comments

Bryan Sievers, Sievers Family Farms, and Raceline Alternative Energy said he didn't have any specific comments but thanked the committee for the work they're doing. And said his group is here to support

them. He said to keep their eye on renewable natural gas, and some proposals potentially harmful to on-farm anerobic digestion and renewable gas production.

Wrap up, Closing Remarks, and Adjourn

Beth Sauerhaft, Chair, FRRCC
Rod Snyder, Agriculture Advisor to the Administrator, EPA
Venus Welch-White, FRRCC DFO, EPA

Rod Snyder said that EPA staff appreciates the months the workgroup has spent on these recommendations. He said that they will send the final recommendations to the program offices straight away, even before the official Agency response is drafted. He said their recommendations are helpful and meaningful to the Agency.

Beth Sauerhaft thanked FFRCC members and the regional agricultural advisors for joining the meeting.

Venus Welch-White offered her thanks, as well, and said written comments may be submitted until Feb. 14, 2023. She reiterated that the FFRCC charter was renewed for two years.

Venus Welch-White adjourned the meeting.

Appendix 1. Agenda

U.S. Environmental Protection Agency
Farm, Ranch, and Rural Communities Federal Advisory Committee
Meeting Agenda | January 30-31, 2024
All times listed in Mountain Standard Time

Tuesday, January 30, 2024

Time	Topic
1:30 – 1:40 pm	**Meeting Opening and Welcome Remarks** *Beth Sauerhaft, Chair, FRRCC* *Rod Snyder, Agriculture Advisor to the Administrator, EPA* *Venus Welch-White, FRRCC DFO, EPA*
1:40 – 1:45 pm	**Roll Call** *Beth Sauerhaft, Chair, FRRCC*
1:45 – 2:00 pm	**New Mexico Tour Highlights and Discussion** *Beth Sauerhaft, Chair, FRRCC*
2:00 – 2:15 pm	**Update on FRRCC Animal Agriculture Water Quality (AAWQ) Subcommittee** *Rod Snyder, Agriculture Advisor to the Administrator, EPA* *Venus Welch-White, FRRCC DFO, EPA* *Mae Wu, Deputy Assistant Administrator, Office of Water, EPA*
2:15 – 3:15 pm	**Climate and Water Quality Co-benefits** • **EPA 319 nonpoint source grant program** *Katie Flahive, EPA Office of Water* • **USDA-NRCS climate-smart agriculture funding through IRA** *Martin Lowenfish, NRCS Branch Chief for Areawide Planning*
3:15 – 3:30 pm	**Break**
3:30 – 4:45 pm	**FRRCC Ad Hoc Workgroup Status Reports** • Water, Energy & Climate Nexus – *Michael Crowder* • Climate Mitigation, Resilience & Adaptation – *James Pritchett* • Climate Finance, Social Inclusion & Technical Assistance – *Chantel Simpson*
4:45 – 5:15 pm	**Committee Discussion** *Beth Sauerhaft, Chair, FRRCC*
5:15 – 5:30 pm	**Wrap up and Day One Adjourns** *Venus Welch-White, FRRCC DFO, EPA* *Beth Sauerhaft, Chair, FRRCC*

FRRCC Agriculture Producing Solutions

Wednesday, January 31, 2024

Time	Topic
8:00 – 8:15 am	**Call to Order, Roll Call of Committee Members** *Beth Sauerhaft, Chair, FRRCC* *Venus Welch-White, FRRCC DFO, EPA*
8:15 – 9:30 am	**Role of Innovation in Technology in Climate-Smart Agriculture** • **Drones / UAVs** *Amy Blankinship and Katrina White, EPA Office of Pesticide Programs, Environmental Fate and Effects Division (EFED)* • **Gene Editing, Biopesticides & emerging technologies** *Rubella Goswami, USDA NIFA, Director for the Plant Protection Division* *Mike Mendelsohn, EPA Office of Pesticide Programs, Biopesticides and Pollution Prevention Division (BPPD) Emerging Technologies Branch*
9:30 – 10:15 am	**Solar Siting Considerations** *Ethan Winter, American Farmland Trust, National Smart Solar Director* *Samantha Levy, American Farmland Trust, Conservation and Climate Policy Manager* *Rusty Rumley, National Agricultural Law Center, Senior Staff Attorney* *Aliza Drewes, USDA Rural Utilities Service, Senior Advisor*
10:15 – 10:30 am	**Break**
10:30 – 10:45 am	**Agriculture and Forestry Greenhouse Gas Mitigation Report** *Sara Ohrel, EPA Climate Change Division*
10:45 – 11:15 am	**Status of Biofuels Tax Credits in the Inflation Reduction Act** *Benjamin Hengst, EPA Deputy Director, Office of Transportation and Air Quality*
11:15 – 12:00 pm	**Rural Equity and Technical Assistance** • **Environmental Justice Thriving Communities Technical Assistance Centers** *Patricia Sullivan, NMSU Associate Dean for Outreach & Recruitment* • **Rural Partners Network updates** *Michael Rivera, New Mexico USDA Rural Development*
12:00 – 12:15 pm	**Break**
12:15 - 2:15 pm	**Working Lunch: Discussion and Consideration of Workgroup Recommendations** *Beth Sauerhaft, Chair, FRRCC* *Venus Welch-White, FRRCC DFO, EPA*
2:15 – 2:45 pm	**Public Comment Session**
2:45 – 3:00 pm	**Wrap Up, Closing Remarks and Meeting Adjourns** *Beth Sauerhaft, Chair, FRRCC* *Rod Snyder, Agriculture Advisor to the Administrator, EPA* *Venus Welch-White, FRRCC DFO, EPA*

Appendix 2. FRRCC Members and Affiliations

Beth C. Sauerhaft, Ph.D. (Committee Chair)
Acting President/CEO & Vice President of Programs
American Farmland Trust
Chappaqua, New York

Raymon Shange, Ph. D. (Vice Chair)
1890 Extension Administrator
Associate Dean, College of Agriculture, Environment, and Nutrition Sciences
Tuskegee University
Tuskegee, Alabama

Barry Berg
Watershed Coordinator
East Dakota Water Development District
Brookings, South Dakota

Brad Bray
Chief Operating Officer
Bray Farms, LLC
Cameron, Missouri

Emily M. Broad Leib
Clinical Professor of Law
Faculty Director, Food Law and Policy Clinic
Harvard Law School
Cambridge, Massachusetts

Don Brown
CEO
Anchor Three Farm, Inc.
Colorado Commissioner of Agriculture 2015-2019
Yuma, Colorado

Phillip H. Chavez
Director
Lower Arkansas Valley Water Conservancy District, Catlin Canal Company, and Lower Arkansas Valley Super Ditch
Partner
Diamond A Farms and Mohawk Valley Farms
Rocky Ford, Colorado

John R. H. Collison
Owner
BlackOak Farms
Edmond, Oklahoma

William (Bill) Couser
President/Owner
Couser Cattle Company
Nevada, Iowa

Eddie Crandell, Sr.
Lake County California Supervisor
Lucerne, California

Michael Crowder
President – Elect
National Association of Conservation Districts
General Manager/Shareholder
Barker Ranch
Local Supervisor
Benton Conservation District
West Richland, Washington

Matthew Freund
Owner
Freund's Farm and CowPots LLC
East Canaan, Connecticut

Sharon Furches
Co-owner
Furches Farms Partnership
Second Vice President
Kentucky Farm Bureau
Louisville, Kentucky

Jeffrey Gore, Ph.D.
Research Entomologist
Delta Research and Extension Center
Mississippi State University
Stoneville, Mississippi

David Graybill
Owner
Red Sunset Farm
Executive Committee, State Board of Directors
Pennsylvania Farm Bureau
Mifflintown, Pennsylvania

Jennifer James
Owner
H&J Land Company
Newport, Arkansas

Sarah Lucas
Deputy Director, Office of Rural Development
Michigan Dept. of Agriculture and Rural Development
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