

**FARM, RANCH AND RURAL COMMUNITIES ADVISORY COMMITTEE
RECOMMENDATIONS TO
U.S. ENVIRONMENTAL PROTECTION AGENCY ADMINISTRATOR MICHAEL S. REGAN
FEBRUARY 2024**

Background

EPA established the Farm, Ranch, and Rural Communities Committee (FRRCC) in 2007 to provide independent policy advice, information, and recommendations to the Administrator on a range of environmental issues and policies that are of importance to agricultural and rural communities. Committee members include representatives from academia, industry (e.g., agriculture and allied industries), non-governmental organizations, and state, local, and tribal governments.

The current FRRCC held public hybrid (remote/in-person) meetings in January 2023 at EPA's Washington, DC headquarters building and in July 2023 at Colorado State University in Ft. Collins, CO, and held a virtual meeting on September 28, 2023, and then another in person meeting in Santa Fe, NM in January 2024. Following the first meeting in January where the committee received their charge, numerous informative presentations from EPA staff and commenced discussion of the charge topic, Chair Beth Sauerhaft, PhD, established four ad hoc work groups: a) climate finance, social inclusion, and technical assistance; b) climate adaptation and resilience; c) climate, energy, water nexus; and d) biotech and ag inputs. Sauerhaft appointed leads/co-leads for each work group. In July following consultation with Co-Chair Raymon Shange, PhD and DFO Venus Welch-White, PhD, Sauerhaft consolidated these into three ad hoc work groups for greater ease of administration by all three and because it was determined there was sufficient overlap in discussion topics to warrant this change. The biotech and ag inputs work group was merged with the climate adaptation and resilience work group and renamed as the ad hoc work group on climate mitigation, resilience and adaptation. These ad hoc work groups have met (and continue to meet) virtually on a regular basis between full committee meetings to carry out and develop the work of the committee. During the virtual September 2023 meeting, recommendations were presented to the full committee, discussed and voted upon. During the January 2024 in-person meeting, additional recommendations were presented to the full committee, discussed and voted upon. The recommendations further down in this letter represent those that the committee voted to move on to share with you, the EPA Administrator.

Charge (as issued by the US EPA Administrator and delivered during the committee's first meeting in January 2023)

Advancing Climate Mitigation and Adaptation Strategies for U.S. Agriculture America's farmers and ranchers find themselves on the front lines of the climate crisis. Severe storms, widespread flooding, prolonged drought, and more frequent wildfires are creating unprecedented risks to our food system. These extreme weather events threaten to erode agricultural productivity even while global population surges toward 10 billion people by mid-century.

The FRRCC is charged with considering how EPA's tools and programs can best support and advance the U.S. agriculture sector's climate mitigation and adaptation goals. By identifying voluntary, incentive-based opportunities; public-private partnerships; and market-based approaches, EPA can support farmers and ranchers in their efforts to reduce emissions, sequester carbon, and accelerate a more resilient food and agriculture system.

The FRRCC should evaluate the Agency's policies and programs at the nexus of agriculture and climate change. Specific topics may include:

- Alternative manure management systems and other methane reduction practices
- Improved quantification of greenhouse gas emissions reductions from low-carbon biofuels
- Climate and water quality co-benefits from nutrient management practices
- Strategies to achieve EPA and USDA's goal of halving food loss and waste by 2030
- Research and regulatory responses to evolving pest pressures due to climate change
- Water management and reuse strategies to address water scarcity

The FRRCC's recommendations should be rooted in EPA's foundational value of scientific integrity with a commitment to ensuring environmental justice for all communities.

FRRCC RECOMMENDATIONS TO ADMINISTRATOR REGAN

The FRRCC officially presents these recommendations to Administrator Regan for his consideration and adoption. Please note that full documents are attached as *Exhibit 1* with additional information as determined helpful by the ad hoc work groups and the full committee. FRRCC leadership welcomes the opportunity to discuss the details of these recommendations with Administrator Regan.

I. Recommendation Preamble:

The Farm, Ranch and Rural Community Committee (FRRCC) members endeavor to serve our nation and citizens across its vast landscape. We recognize that with diverse backgrounds and experiences, many of us have experienced a legacy of injustice and the marginalization of others in our society.

The FRRCC recognizes that EPA is committed to continue to improve access to outreach, training, funding, and support for underserved and disadvantaged populations, rural communities and those defined by EO 13985 Advancing Racial Equity and Support for Underserved Communities Through the Federal Government ("populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life...).

Today, many opportunities, programs and benefits afforded to our citizens:

- Are not well-known or publicized to the desired beneficiaries,

- Are inequitably distributed, particularly to underserved and disadvantaged agricultural operations, tribes, and rural communities and
- Do not receive the resources or support needed for implementation, long term viability and management.

Organizations that have larger resource pools (ex: lawyers, grant writers, and engineers) are more often able to obtain grants and benefits from government efforts. Smaller rural communities and marginalized groups often don't have the same staffing and capacity. With these factors in mind, it is imperative to provide intentional outreach, resources and technical assistance to create a more equitable process.

To address these historic inequities, our committee has proposed a variety of approaches that will result in added resources, data, research, and technical assistance to these disadvantaged and underserved communities. Addressing these systemic barriers to equity will meet this committee's charge to improve the climate for current and future generations, as well as advance our hope to create a better nation for all.

A. Climate Mitigation, Resilience and Adaptation Recommendations

The FRRCC recommends the EPA act on the following items:

Recommendation A1: The EPA should assess the current scope of activities and mission of Regional Agricultural Advisers as it relates to climate mitigation, adaptation, and resilience. Where appropriate, duties, responsibilities and resources may be adjusted to position the advisers to better support agency goals.

With mission adjustment, the Regional Agricultural Advisers can create collaborative networks for agricultural climate adaptation and mitigation by serving as a liaison across various levels of government (local, state, regional and national). These advisers may play a pivotal role in ensuring two-way communication among clientele and fostering best practice adoption.

Recommendation A2: The EPA develops a strategic plan that allows for two-way communication elevating awareness and improving design of climate mitigation, adaptation, and resilience initiatives in agriculture. The outreach plan needs to include multiple agencies, be championed nationally, and have regional relevance.

Recommendation A3: The EPA organizes quarterly webinars specific to agricultural climate mitigation, resilience, and adaptation to generate awareness of guidance, new initiatives, process improvements and coordination among groups. These sessions are meant to be region specific and best organized through the Deputy Regional

Administrator's office with the expertise of Regional Agricultural Advisers. Impacts are elevated when other agencies (e.g., Natural Resources Conservation Service) are represented. Two-way communication is an essential element of these webinars.

The FRRCC believes that many climate resilience and adaptation initiatives exist outside of public awareness, and the same may be true within the EPA. Webinars allow for critical information to be transmitted succinctly with appropriate context. Relevant information presented in the webinar includes ongoing efforts and initiatives that will be launched soon. USDA agencies (NRCS, Rural Development) may be important partners with EPA for organizing and presenting materials.

***Recommendation A4:* The EPA organizes webinars to inform and describe opportunities for agriculture to be integrated into the Climate Pollution Reduction Plans.**

***Recommendation A5:* EPA accelerate co-benefits for agriculture and rural communities by:**

- a. reviewing policies, guidance, and funding processes to see the extent to which co-benefits in climate adaptation, mitigation and resilience investments are considered,**
- b. developing a list of important co-benefits for climate resilience for agriculture through a review of literature and expert advice,**
- c. disseminating information describing co-benefits, providing examples of co-benefits generated by climate resilient practices, and offering tools that assess co-benefits of projects and programs,**
- d. incentivizing projects that generate multiple co-benefits that are clearly articulated in proposals and outcomes measured in project reporting,**
- e. creating regional and agency wide co-benefit metric(s) that benchmark the share of EPA funding that supports multiple benefit outcomes, and**
- f. communicating the increasing share of EPA funding directed to co-benefits with examples shared across agencies and to the public.**

***Recommendation A6:* EPA's LGAC and FRRCC collaborate on a joint guidance document for improving local government participation and local-state-federal coordination of climate resilience and adaptation initiatives.**

This recommendation allows local governments better access to funding opportunities, ensuring local knowledge is integrated into program design and guidance, and benefits to rural communities and agriculture are maximized.

Recommendation A7: EPA and partners should develop informational resources and events to share innovative approaches for planning, funding, monitoring, and measuring the success of NPS management programs.

The FRRCC notes the benefits of sharing innovative approaches in NPS project design, and that the practices and tools used in these novel approaches may not be readily available due to capacity constraints. A regional toolkit, or collection of these approaches, will increase the impact of federal funds made available through state NPSMPs.

B. Water, Energy and Climate Nexus

The FRRCC recommends EPA act on the following items regarding anaerobic digesters and alternative manure management practices:

Recommendation B1: Increase investment in the AgSTAR program

- Continue to enhance and implement the AgSTAR outreach/communications plan.

Recommendation B2: Increase AgSTAR staffing

- Provide technical assistance and conduct feasibility studies for individual farmers considering methane digesters.
- Make regional staff available to provide farmers with information and resources relevant to their state/region.
- Coordinate directly with existing NRCS and state programs and staff regarding the implementation of climate resilience programs and projects, including digester development and the implementation of alternative manure management programs and practices.

Recommendation B3: Utilize and Promote AgSTAR as an incubator and resource for technological innovation, pilot project implementation, and research.

- Explore alternative uses for generated biogas as well as the digestate.
- Implement a farmer grant program to incentivize innovations.

- Build and share a portfolio of innovations with farmers, government and private businesses.
- Incorporate continued monitoring and data collection for atmospheric methane around dairy digester facilities before and after digester construction to assess their efficacy in meeting mitigation objectives while helping operators avoid unintentional biogas product loss.

Recommendation B4: Ensuring solutions are available to serve a larger breadth of issues/challenges

- Provide resources on broader solutions for methane reduction, including not only digesters but also alternative manure management and other technologies that may work more effectively for certain producers.
- Research opportunities to incentivize digesters to be built such that they can also accept food waste, so they are more of a useful community facility (and can raise additional funds for farmers from increased feedstock).
- Provide focused resources on opportunities to support technology for community digesters that can support a group of smaller farms.
- At the programmatic level, and not the individual project level, conduct a lifecycle analysis of digester biogas, and related co-products including digestate. As part of the analysis, include air and water quality issues in addition to GHG emissions profile of digester gas and its products.

C. Climate Finance, Social Inclusion and Technical Assistance

The FRRCC recommends EPA act on the following items:

Recommendation C1: 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 C2: 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 technologies into greater watershed planning and program implementation.

The FRRCC recommends that EPA act on the following items regarding the Clean Water Act §319 Program:

Recommendation D1: EPA develop and implement 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 should include a web-based portal for submitting project data and sharing ROI information. Utilize existing data in modeling to consider financial impacts of environmental inputs.

Recommendation D2: EPA provide supplemental (plus-up) funds for approved state NPS programs with the following considerations:

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

Recommendation D3: EPA revise its Section (§) 319 guidelines to create a pre-application process and supports, to offer assistance that builds capacity in disadvantaged communities lacking sufficient funds for proposal development, implementation, data gathering, management, evaluation of effectiveness and reporting.

Recommendation D4: EPA revise guidance for updating state nonpoint source management programs (Chapter 3 and Appendix A of the Draft Guidance Document) to:

- (i) 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**
- (ii) Include regional agricultural advisers in the review process;**
- (iii) Engage and incentivize local governments and stakeholders in outcome evaluation and revision of state nonpoint source management programs;**

- (iv) Encourage the regional administrator and staff to complete on-site review of NPS projects alongside local stakeholders when NPSMPs are updated**

Recommendation D5: 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.

II. Summary

The FRRCC appreciates the opportunity to provide input and recommendations to EPA leadership and could not have done this without the unending support of Venus Welch-White, Linda Brown and Rod Snyder. In addition, we had numerous EPA and other speakers both at our in person full committee meetings as well as during our individual ad hoc work group meetings. Your staff were ready to speak with us, respond to questions and follow up with information when needed. Thank you. Thank you for accepting these recommendations that were developed and refined with significant discussion and then accepted with consensus by the full FRRCC. Raymon and I look forward to hearing how EPA acts on them so we can report back to the full committee. In addition, our work continues and thus we look forward to sharing additional recommendations with you in the near future.

Exhibit 1

EPA Farm, Ranch and Rural Communities Advisory Committee

Ad hoc Work Group Recommendations

A) Ad Hoc Work Group #2 - Climate Mitigation, Resilience and Adaptation

Introduction

In 2022, the EPA administrator charged the Farm, Ranch, and Rural Communities Committee (FRRCC) with **advancing climate mitigation and adaptation strategies for U.S. agriculture.**

Under this charge, the FRRCC is considering how EPA's tools and programs can best advance the U.S. agriculture sector's climate mitigation, resilience, and adaptation goals. The EPA's foundational values of scientific integrity and commitment to environmental justice are an anchor point for recommendations.

In 2023, an ad hoc work group (work group #2) was formed to consider the FRRCC charge in the context of climate resilience, adaptation, and mitigation. Work group #2 is discussing a wide range of topics, and emerging considerations include:

- **America's farmers, ranchers, and local governments feel the immediate impacts of a changing climate.** These stakeholders seek technical assistance, resources, and innovative approaches for the mitigation, adaptation, and resilience of their agricultural production systems and their communities. The EPA can play a catalyzing role in this effort.
- **Agricultural climate goals and related initiatives are infrequently integrated or considered by state and regional governments when creating climate plans.** EPA can play a collaborative and coordinating role in elevating agriculture's relevance in climate planning and implementation.
- **Understanding and accessing climate adaptation, mitigation and resilience funding is complex, and the complexity limits awareness and reduces accessibility.** Stakeholders must navigate multiple agencies and levels of government to make meaningful investments in climate adaptation, mitigation, and resilience efforts. Multiple agencies and governments are working across jurisdictions and in their climate planning. Climate planning for agriculture is seldom coordinated across these agencies and levels of government. The burden of coordination rests on the stakeholders seeking funds. EPA should consider mechanisms to reduce the burden on stakeholders.

- **EPA’s historical funding guidance is centered on creating a singular benefit. When co-benefits are incentivized, then climate adaptation, mitigation and resilience will be more successful.** EPA should incentivize opportunities for providing multiple co-benefits directed at climate resilience.
- **EPA needs immediate action to realize the greatest potential benefits from new, time-limited funding sources.** As an example, programs funded by the Inflation Reduction Act (5-year funding authorization) and their guidance are being mobilized now. These initiatives may benefit from greater engagement with agricultural stakeholders and agricultural expertise within the EPA. This is especially true of the Climate Pollution Reduction Grants program.

Opportunities to address these considerations are organized into a set of four themes, with recommendations made at the end of this document.

Theme 1: Regional Agricultural Advisers can be used more fully to catalyze outreach to stakeholders, coordinate opportunities and raise the awareness of agriculture in climate planning for mitigation, adaptation, and resilience.

In the last ten years, EPA recognized the benefit of having trusted, local individuals with scientific technical training, agricultural knowledge and excellent communication skills to effectively inform stakeholders, serve as an agency liaison, coordinate opportunities, and co-create knowledge with constituents. The Regional Ag Advisers often have a broad-based knowledge of collaborating agencies (e.g., USDA-NRCS), local governments, and EPA’s internal scope of work. This knowledge is of increasing value in the context of climate adaptation in agriculture.

Theme 2: Strategic outreach planning and implementation will enhance the effectiveness of EPA’s climate adaptation, mitigation, and resilience initiatives.

Increasing awareness of EPA funding and guidance amplifies success and increases collaboration. Interested parties include stakeholders, local governments, state governments, federal agencies, and agency personnel. A strategic, two-way communication plan is needed.

Work group #2 recognizes climate adaptation and resilience to be a complex, difficult challenge involving interrelated biological, economic, political, and social systems. In these circumstances, frequent, targeted communication from EPA can be helpful in improving outcomes and participation. Systematic, two-way communication will ensure the benefits of diverse perspectives and improve opportunities for constituents and communities with limited resources when pursuing agency funding and support.

Theme 3: Evaluating the extent to which EPA climate policies, guidance, and incentives promote co-benefits for agriculture resilience.

Financial, technical, and human resources are scarce. Strategic use of resources is critical in meeting EPA's goals for climate resilience. The work group endorses approaches that create multiple co-benefits for enhancing climate resilience and adaptation. Prioritizing projects with co-benefits will accelerate adaptation, mitigation, and resilience in agricultural systems, and increases the return on investment of these initiatives. Some evidence exists that prioritizing co-benefits will alter decision making.

It is unclear if current EPA policies and tools promote projects and programs with significant co-benefits, or if EPA has a set of metrics that track co-benefits. A guest speaker suggested that this may be occurring in the Section 319 grants programs.

Historical approaches to projects and programs typically identify a singular outcome that improves environmental conditions. A singular approach is often repeated, so much so that opportunities are missed to improve agricultural and rural community resilience. Initiatives may become anchored around a few practices to the exclusion of others, which in turn slows innovation.

As an example, programs encouraging carbon sequestration may also improve soil health and generate many co-benefits including:

- Environmental benefits: soil conservation, improved soil structure and stability, nutrient availability, water infiltration, and moisture retention
- Water quality benefits: preventing nutrient runoff, irrigation efficiency
- Ecological benefits: increasing ecosystem service provision, reduced susceptibility to pests
- Social benefits: skills and knowledge development, knowledge community building, employment
- Economic benefits: agricultural production risk management (drought tolerance, flood mitigation), long-run cost savings, alternative revenues streams

If these multiple benefits are not identified and measured, then the long-run return on investment for carbon sequestration projects will solely be limited to stored carbon. Encouraging assessment of multiple benefits will better target investment opportunities for EPA programs. The assessment is a platform for sharing with the public the return on investment for climate programs.

Theme 4: Coordination with the Local Government Advisory Committee (LGAC) when examining opportunities to enhance climate mitigation, adaptation, and resilience for communities.

EPA's Local Government Advisory Committee (LGAC) is an independent, policy-oriented advisory committee that provides advice and recommendations to the EPA Administrator on critical environmental issues impacting local governments. Chartered under the Federal Advisory Committee Act in 1993, the Committee is composed of elected and appointed officials from local, state, tribal and territorial governments across the United States. Recent meeting agendas and recommendations can be found at: <https://www.epa.gov/ocir/local-government-advisory-committee-lgac>

The LGAC maintains a climate mitigation working group and has [submitted recommendations](#) for improving climate resilience of local communities. Review of materials suggests that the LGAC and the FRRCC may benefit through dialogue and sharing of materials.

A) Ad Hoc Work group #2 - Climate Mitigation, Resilience and Adaptation Recommendations

Recommendation A1: The EPA should assess the current scope of activities and mission of Regional Agricultural Advisers as it relates to climate mitigation, adaptation, and resilience. Where appropriate, duties, responsibilities and resources may be adjusted to position the advisers to better support agency goals.

With mission adjustment, the Regional Agricultural Advisers can create collaborative networks for agricultural climate adaptation and mitigation by serving as a liaison across various levels of government (local, state, regional and national). These advisers may play a pivotal role in ensuring two-way communication among clientele and fostering best practice adoption.

Recommendation A2: The EPA develops a strategic plan that allows for two-way communication elevating awareness and improving design of climate mitigation, adaptation, and resilience initiatives in agriculture. The outreach plan needs to include multiple agencies, be championed nationally, and have regional relevance.

Recommendation A3: The EPA organizes quarterly webinars specific to agricultural climate mitigation, resilience, and adaptation to generate awareness of guidance, new initiatives, process improvements and coordination among groups. These sessions are meant to be region specific and best organized through the Deputy Regional Administrator's office with the expertise of Regional Agricultural Advisers. Impacts are elevated when other agencies (e.g., Natural Resources Conservation Service) are represented. Two-way communication is an essential element of these webinars.

Work group #2 believes that many climate resilience and adaptation initiatives exist outside of public awareness, and the same may be true within the EPA. Webinars allow for critical information to be transmitted succinctly with appropriate context. Relevant information presented in the webinar includes ongoing efforts and initiatives that will be launched soon. USDA agencies (NRCS, Rural Development) may be important partners with EPA for organizing and presenting materials.

Recommendation A4: The EPA organizes to inform and describe opportunities for agriculture to be integrated into the Climate Pollution Reduction Plans.

Recommendation A5: EPA accelerate co-benefits for agriculture and rural communities by:

- g. reviewing policies, guidance, and funding processes to see the extent to which co-benefits in climate adaptation, mitigation and resilience investments are considered,**
- h. developing a list of important co-benefits for climate resilience for agriculture through a review of literature and expert advice,**
- i. disseminating information describing co-benefits, providing examples of co-benefits generated by climate resilient practices, and offering tools that assess co-benefits of projects and programs,**
- j. incentivizing projects that generate multiple co-benefits that are clearly articulated in proposals and outcomes measured in project reporting,**
- k. creating regional and agency wide co-benefit metric(s) that benchmark the share of EPA funding that supports multiple benefit outcomes, and**
- l. communicating the increasing share of EPA funding directed to co-benefits with examples shared across agencies and to the public.**

Recommendation A6: EPA's LGAC and FRRCC collaborate on a joint guidance document for improving local government participation and local-state-federal coordination of climate resilience and adaptation initiatives.

This recommendation allows local governments better access to funding opportunities, ensuring local knowledge is integrated into program design and guidance, and benefits to rural communities and agriculture are maximized.

Adopted during January 2024 meeting:

Recommendation 5: EPA and partners should develop informational resources and events to share innovative approaches for planning, funding, monitoring, and measuring the success of NPS management programs.

The FRRCC notes the benefits of sharing innovative approaches in NPS project design, and that the practices and tools used in these novel approaches may not be readily available due to capacity constraints. A regional toolkit, or collection of these approaches, will increase the impact of federal funds made available through state NPSMPs.

B) Ad Hoc Work Group #1 – Water, Energy and Climate Nexus

Although these initial recommendations from the Water, Energy and Climate Nexus Ad Hoc Work group (Work group #1) initially focus on anaerobic digesters and associated alternative manure management practices, the work group looks forward to expanding its inquiry to significantly more diverse areas, including alternative energy, water conservation, and climate resilience programs and project areas.

Introduction

As climate change continues to impact agricultural producers and rural communities throughout the country, innovative solutions within the water, energy and climate nexus are needed to provide mitigation benefits, assist agricultural producers in adapting to climate change impacts, and to develop alternative revenue streams that can provide both public and private program and project benefits. One of the many management tools that producers employ on farms to help reach the goal of being carbon neutral is anaerobic digesters. This technology not only benefits air quality by reducing methane emissions, but it also reduces odors, often resulting in improved farm-community relations. Anaerobic digestion continues to be recognized as a viable technology to treat organic waste materials by converting waste to energy and fertilizer. In addition, anaerobic digestion should continue to be studied to promote additional efficiency in implementation and methane mitigation.

The agricultural community has been working to develop anaerobic systems, making them more reliable and finding valuable uses for the materials at the end of the digestion process. In efforts to provide key inputs to the circular economy, producers are taking costly waste and

converting it to value-added products. Farm digesters are also being utilized in partnership with municipalities to reduce the burden of food waste and other organics that would otherwise be destined for disposal in landfills while at the same time producing renewable energy and reducing our use of fossil fuels.

In the US, anaerobic digestion has been largely utilized for larger scale livestock operations. There is growing interest in innovations to enable the technology to be adapted for smaller farms and a greater variety of feedstocks in a cost-effective way. At the present time, adopting anaerobic systems continues to be extremely cost prohibitive for producers who don't generally have the resources needed to develop and install digesters that are able to handle not only the farm's waste but waste from a variety of other industries. There are several companies interested in putting digesters on farms because of the tipping fees, carbon credits and the green energy values generated. Unfortunately, digestion does not reduce the nutrient load or volume of the added organic material coming into the farm and producers are faced with adjusting their nutrient management plans to accommodate this added material. While in many cases, programmatic funding from state and federal agencies can provide much needed assistance, in most cases, investor participation is additionally vital for project success.

Farmer-participatory research methodologies have been applied in certain states, such as New York, to assess producer perceptions of anaerobic digesters at smaller scales and with diversified livestock and crop operations. Results indicated growing interest by a diverse group of farmers in using these systems in the development of additional methodologies and markets that could drive innovation and greater adoption. Additional outreach and the provision of information and data regarding economic viability can assist in the acceptance and development of pilot anaerobic digester systems on smaller farms. The New York example also showed that improved funding sources for adoption of this sustainable technology will likely increase adoption rates. Additional technical assistance for producers and governmental or non-profit partners is vital for implementation. For instance, programmatic efforts to provide feasibility studies by trusted expert entities can build trust and ensure that projects are appropriately located. Such studies could also consider and include recommendations for alternative manure management projects such as those discussed below.

The Environmental Protection Agency, along with the Department of Agriculture and the Department of Energy originated the AgSTAR program in 1994 when digesters were in their infancy in the US. At that time, the program assisted farmers not only with feasibility studies, but with design and installation of projects. The program has a 30-year track record of relationships and interagency cooperation. Over the years, the program has steadily contracted to its current size as an information library with just one employee. A robust upsizing and re-examination of the value that can be provided by AgSTAR is essential for the continued success of anaerobic digester implementation.

Alternative Manure Management Program and Practices

Recognizing that the vast majority of dairy and livestock operations do not produce enough manure or have the capital for a digester, the California Department of Food & Agriculture

launched the Alternative Manure Management Program (AMMP) in 2017 to reduce methane emissions from manure management. The AMMP provides technical and financial assistance for dairy and livestock operators to shift from wet manure handling and storage to dry manure handling and storage, including pasture-based management. The program provides greater flexibility for cooperative agencies beyond the digester footprint to allow for more targeted utilization of resources to achieve a wider range of positive outcomes. Additional background on the program can be found at <https://www.cdfa.ca.gov/oefi/AMMP/> and <https://calclimateag.org/ammp/>. The program allows for the provision of eligible practices to achieve positive alternative manure practices, including the utilization of composting and biochar to reduce methane emissions. More information can be found at <https://pubs.acs.org/doi/pdf/10.1021/acs.est.2c03467> and a list of eligible practices can be found at https://www.cdfa.ca.gov/oefi/ammp/docs/2023_AMMP_RGA.pdf.

B) Ad Hoc Work Group #1 - Water, Energy and Climate Nexus Recommendations

The Water, Energy and Climate Nexus Ad Hoc Work group proposes the following recommendations to the EPA Administrator regarding anaerobic digesters and alternative manure management practices

Recommendation B1: Increase investment in the AgSTAR program

- Continue to enhance and implement the AgSTAR outreach/communications plan.

Recommendation B2: Increase AgSTAR staffing

- Provide technical assistance and conduct feasibility studies for individual farmers considering methane digesters.
- Make regional staff available to provide farmers with information and resources relevant to their state/region.
- Coordinate directly with existing NRCS and state programs and staff regarding the implementation of climate resilience programs and projects, including digester development and the implementation of alternative manure management programs and practices.

Recommendation B3: Utilize and Promote AgSTAR as an incubator and resource for technological innovation, pilot project implementation, and research.

- Explore alternative uses for generated biogas as well as the digestate.
- Implement a farmer grant program to incentivize innovations.
- Build and share a portfolio of innovations with farmers, government and private businesses.
- Incorporate continued monitoring and data collection for atmospheric methane around dairy digester facilities before and after digester construction to assess their efficacy in

meeting mitigation objectives while helping operators avoid unintentional biogas product loss.

Recommendation B4: Ensuring solutions are available to serve a larger breadth of issues/challenges

- Provide resources on broader solutions for methane reduction, including not only digesters but also alternative manure management and other technologies that may work more effectively for certain producers.
- Research opportunities to incentivize digesters to be built such that they can also accept food waste, so they are more of a useful community facility (and can raise additional funds for farmers from increased feedstock).
- Provide focused resources on opportunities to support technology for community digesters that can support a group of smaller farms.
- At the programmatic level, and not the individual project level, conduct a lifecycle analysis of digester biogas, and related co-products including digestate. As part of the analysis, include air and water quality issues in addition to GHG emissions profile of digester gas and its products.

C) Ad Hoc Work Group #3 - Climate Finance, Social Inclusion and Technical Assistance

Introduction/Background

The ad hoc Climate Finance, Social Inclusion and Technical Assistance Work Group (work group #3) was established with the goal of improving access to technical assistance and other forms of programmatic support for underserved farmers and rural communities. In alignment with this goal and the EPA commitment/charge to ensuring environmental justice for all communities, the committee developed preamble language to encompass this commitment to equity and justice.

Main Observations and Insights

The United States is plagued with a history of injustices that have been experienced by many of the more vulnerable populations or communities. Current recommendations, while addressing critical needs oft do not provide targeted outreach to underserved communities and community groups who may be unaware of EPA opportunities or lack capacity to compete. This language (in our Preamble above) acknowledges these historic injustices and provides the opportunity for more holistic support for members of these communities and acknowledges a continued commitment to the equitable access and implementation of goals and resources.

C) Ad Hoc Work Group #3 - Climate Finance, Social Inclusion and Technical Assistance Recommendations

Recommendation C1: Accept the preamble language and place it in front of any and all recommendations forwarded to the Administrator for the duration of the committee's charge.

Preamble language is above in the text of the letter

Adopted during the January 2024 meeting:

Recommendation C1: 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 C2: 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 technologies into greater watershed planning and program implementation.

D) Ad Hoc Work Groups #2+3 Combined – Climate Mitigation, Resilience, Adaptation + Climate Finance, Social Inclusion and Technical Assistance

Recommendation 1: EPA develop and implement 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 should include a web-based portal for submitting project data and sharing ROI information. Utilize existing data in modeling to consider financial impacts of environmental inputs.

Rationale: A measure of economic Return on Investment (ROI) may be useful in prioritizing the use of funds, inform additional investment and, if well designed, be used to enhance the resiliency of watersheds impacted by a changing climate. It is believed that state approved NPS plans collect important benefit and cost information that could inform decision making and help to narrate the benefits of the CWA Section 319 funds. The ROI and relevant measures therein will be helpful in reporting progress of state level NPSMP's (e.g., Section 3.3, page 8, Draft Guidance document).

Recommendation 2: EPA provide supplemental (plus-up) funds for approved state NPS programs with the following considerations:

- (iv) State recipients of supplemental funding substantiate a shortfall in available funds relative to submitted proposals in their jurisdiction,

- (v) **State recipients demonstrate how supplemental funding addresses goals for climate resiliency of agricultural systems and rural communities,**
- (vi) **State recipients measure the return on investment (ROI) for plus-up projects with a systematic data gathering and monitoring approach.**

Rationale: This recommendation encourages additional funds focus on mitigating the impacts of a changing climate and building the resilience of agricultural systems and rural communities. Resiliency is a long run goal for agricultural systems facing climate change, which has not garnered attention or funding as part of the goals of climate change mitigation and adaptation. Plus-up funds encourage investment within an annual fiscal allocation and are directed to approved management plans that may lack sufficient funding to implement. The plus-up mechanism encourages timely allocation of funds. Point (iii) creates opportunities for developing return on investment analysis of government funds in the context of long-term resilience that may be lacking. Adaptation and resilience are emphasized in the Draft Guidance Document (Section 3.2, page 7).

Recommendation 3: EPA revise its Section (§) 319 guidelines to create a pre-application process and supports, to offer assistance that builds capacity in disadvantaged communities lacking sufficient funds for proposal development, implementation, data gathering, management, evaluation of effectiveness and reporting.

Rationale: In some communities, insufficient staffing and technical expertise exists to propose, implement, and report the results of (Non-Point Source) NPS projects. Investments that build capacity in local governments and collaborators may lead to more equitable and inclusive distribution of funds to areas which have previously been unable to participate. Including pre-application processes to aid grant applicant process to increase clarity and application details.

Recommendation 4: EPA revise guidance for updating state nonpoint source management programs (Chapter 3 and Appendix A of the Draft Guidance Document) to:

- (v) **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**
- (vi) **Include regional agricultural advisers in the review process;**
- (vii) **Engage and incentivize local governments and stakeholders in outcome evaluation and revision of state nonpoint source management programs;**

(viii) Encourage the regional administrator and staff to complete on-site review of NPS projects alongside local stakeholders when NPSMPs are updated

Rationale: As noted in Chapter 3 of the Draft Guidance Document (p. 7), CWA §319(b) requires all states to adopt NPSMP plans that guide the use of §319 resources. State NPSMP plans outline strategic priorities and metrics of success. Regular updates of NPSMP plans help states evolve to changing conditions and evolving national priorities.

The FRRCC endorses opportunities for elevating local guidance and stakeholder input when the NPSMP is reviewed and evaluated. On-site visitation by the regional administrator and staff of projects with local agricultural stakeholders will improve the efficiency of the updating process and create opportunities for new collaborations, improved guidance and leveraging of support resources.

The FRRCC supports more effort in centering long-run climate resiliency of agricultural systems and rural communities as a strategic priority with specific success and data gathering metrics. The recommendation is to include regional agricultural advisers in the review of plan updates and review of accomplishments. The Draft Guidance document, especially Chapter 3 and Appendix A, may be revised to integrate climate resilience of agricultural systems into program development and evaluation.

Recommendation A+C5: 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.

Rationale: As noted in the draft guidance document, a 40% nonfederal match is needed for each CWA §319 grant. At the same time, 50% of each state level grant must be set aside for watershed project activities that implement state NPSMPs (see Draft Guidelines, Section 6.6, page 39).

The draft guidance proposes an exemption to the 50% allocation for watershed project activities. To qualify for an exemption, the state must demonstrate that additional state and local funding (aka leveraged funds) will double the investment of on-the-ground watershed projects. Stated differently, states must show they have a 2:1 ratio of leveraged funds to the 50% watershed project activities to qualify for the exemption.

Consider a total state award of \$3 million. The state is required to place 50% of its grant in watershed project activities, and the value of these activities is \$1.5 million.

Suppose the state wants to use all the watershed project activities allocation for an NPS grant. To qualify for an exemption and use the full \$1.5 million, the state must find \$1.5 million of local and state funds as a match for the NPS project.