



California Department of Food and Agriculture (CDFA)  
**Fertilizer Research and Education Program (FREP)**  
**Fertilizer Inspection Advisory Board (FIAB)**  
**Technical Advisory Subcommittee (TASC)**

2399 Gateway Oaks Dr., Ste. 200, Sacramento, CA 95833

HYBRID TELECONFERENCE MEETING

**February 13, 2026**  
**10:00 AM**

**MINUTES**

**MEMBERS PRESENT**

Dan Cook  
Daniel Rodrigues\*  
Dave McEuen\*  
Devin Clarke\*  
Dr. Chris Shogren\*  
Dr. Jairo Diaz\*  
Dr. Mike Almasri\*  
Dr. Sebastian Saa\*  
Dr. Tom Bottoms\*  
Franklin Gaudi  
Gina Colfer\*

**MEMBERS ABSENT**

Ehsan Toosi

**CDFA STAFF**

Jenna Leal\*  
Jennifer Harmon  
Karen Adler\*  
Maria Tenorio Alfred\*  
Natalie Jacuzzi\*

\*Participated remotely

**WELCOME AND INTRODUCTIONS**

Dr. Tom Bottoms, Chair, called the meeting to order at 10:06 AM. New members Devin Clarke and Gina Colfer were introduced to the subcommittee members. A quorum was established.

**REVIEW AND APPROVE MINUTES**

Dr. Bottoms requested TASC review the minutes of the October 30, 2025, meeting.

**MOTION:** Dan Rodrigues moved to approve the October 30, 2025, meeting minutes as submitted; Dr. Chris Shogren seconded; the motion passed unanimously with a vote of 11-0.

### **DEPARTMENT, DIVISION, AND BRANCH UPDATES**

Environmental Program Manager II, Jenna Leal provided an update on the Governor's budget, which will be an 8% cut for the program. This cut was anticipated and will not affect the program. Ms. Leal advised the TASC that Fertilizing Materials Inspection Program Environmental Program Manager I, Nick Young and Senior Environmental Scientist (Specialist) Kris Gulliver are attending the Association of American Plant Food Control Officials (AAPFCO) 2026 Winter Annual Meeting in Texas and will be a part of the bio-stimulants regulatory discussion on a national level.

Leal mentioned the upcoming Fertilizer Inspection Advisory Board (FIAB) meeting on February 25 in Fresno, CA, and the upcoming release of the 2026 [CDFA Climate Resilience Strategy for California Agriculture Report](#) which was finalized after the public comment period and edits from the department. The department is also working with Crowe LLP on a regulatory alignment study along with the California Environmental Protection Agency (CalEPA) and the State Water Resources Board on ag-related food safety and water quality reporting requirements.

### **PROGRAM UPDATES**

Senior Environmental Scientist (Supervisory) Natalie Jacuzzi began by informing TASC that FREP will be welcoming a new Environmental Scientist on March 1. Ms. Jacuzzi discussed the Irrigated Lands Regulatory Program (ILRP) Second Statewide Agricultural Expert Panel draft report, which will be released for public comment at the end of February. This report will provide recommendations to the State and Regional Waterboards that will directly impact farming operations and future regulatory requirements. Jacuzzi discussed the inclusion of the California Crop Fertilization Guidelines and how they are not meant to be used in a regulatory manner. The final draft of the report will likely be released in the summer.

### **FREP GRANT PRIORITIES**

Ms. Jacuzzi discussed the change of the Request for Proposals (RFP) timeline. Following the recommendation of FIAB, the program decided to pause the release of the regular RFP to explore opportunities to fund research focused on the soil NOx emissions. The program contacted three NOx experts who participated on the CA Air Resources Board (CARB) Subject Matter Expert Review Panel (SMERP) that completed a literature review on soil nitrogenous emissions in CA with a focus on NOx and provided recommendations for future research needs after identifying that CARB is likely underestimating NOx emission estimates. These experts agreed to assist FREP in efforts to address NOx research gaps from an agronomic perspective. TASC members were asked to give their opinions on what the focus of the study should be, how to solicit the proposals and their role in reviewing submission on this topic. TASC decided that in lieu of releasing a call for proposals (special RFP), the program should work with the SMERP NOx experts to develop research guidelines that inform FREP's NOx research solicitation, identify researchers who have the necessary scientific expertise and resources to complete the research and support the development of an agronomically-focused research proposal process.

TASC members also provided feedback on the focus of the NO<sub>x</sub> research, asked questions and discussed concerns. Gina Colfer stated that she wanted to see research that was solution-oriented. Leal affirmed, explaining that the SMERP NO<sub>x</sub> experts also suggested the research be framed around fertilizer use efficiency. FREP staff talked about FREP's goal of working with the SMERP NO<sub>x</sub> experts to identify opportunities for funding research that both quantifies soil NO<sub>x</sub> emissions and looks at practical best management practices that could reduce emissions. Mike Almasri expressed concern that quantifying emissions should be the first priority given the limited time and funding and the fundamental gaps in knowledge identified by the SMERP report. Saa agreed that funding is necessary for NO<sub>x</sub> given the link between NO<sub>x</sub> and air quality regulations and felt FREP funding to support data collection was reasonable and necessary. Devin Clarke asked if the NO<sub>x</sub> research could also explore a practical issue like assessing nitrogen dynamics from different fertilizer sources. FREP staff commented that one of the recommendations from the SMERP report was to better understand the NO<sub>x</sub> contribution from nitrate-based and ammoniacal fertilizers, but the specific research methodology and treatments still needed to be worked out based on feedback from SMERP NO<sub>x</sub> experts and what was most feasible.

The group discussed the potential to focus the FREP-funded NO<sub>x</sub> research on different cropping systems, soil types, irrigation systems and nitrogen application management practices using continuous chamber measurements, which although challenging and limited by area, clearly indicate what is emitted directly from the soil surface under the chamber. FREP staff indicated this was the direction they were discussing with the SMERP NO<sub>x</sub> experts, who recommended that chamber measurements, when coupled with eddy covariance tower and satellite-based remote sensing measurements, would clarify whether and to what extent CARB's NO<sub>x</sub> emission estimates were underestimating the actual soil emissions from NO<sub>x</sub>.

The call for submissions for the regular RFP will follow the release of the Agricultural Expert Panel's draft report. The program plans to incorporate recommendations relevant to irrigation and nutrient management research, education and outreach from the draft report once it is available and send out this version to TASC members to individually add their recommendations. The goal is to incorporate all edits in a timely manner so that the regular RFP can open in the spring, with full proposals will by due in late spring or early summer and new research beginning on January 1, 2027, as is typical for the regular grant cycle.

### **PUBLIC COMMENTS**

No public comments.

### **AGENDA ITEMS FOR FUTURE MEETINGS**

None at this time

### **NEXT MEETING**

To be determined, a doodle poll will be sent out.

**ADJOURN**

**MOTION:** Dr. Franklin Gaudi moved to adjourn the meeting; Dr. Sebastian Saa seconded the motion. The meeting was adjourned at 12:11 PM.

Respectfully submitted,

**ORIGINAL SIGNED BY NATALIE JACUZZI**

Natalie Jacuzzi

Senior Environmental Scientist (Supervisory)

Fertilizer Research and Education Program

Date: 2/26/2026