

# State of California Air Resources Board

## Board Item Summary

**Item # 25-6-2:      Public Meeting to Consider Proposed Research Contract with the University of California, Irvine, Titled "Improving Estimates of CO<sub>2</sub> And CH<sub>4</sub> Emissions from Southern California Coastal Wetlands and BVOC Emission Estimates from All California Landscapes"**

### Staff Recommendation:

The California Air Resources Board (CARB or Board) staff recommends that the Board approve funding of the proposed research contract with the University of California, Irvine, titled "Improving estimates of CO<sub>2</sub> and CH<sub>4</sub> emissions from southern California coastal wetlands and BVOC emission estimates from all California landscapes."

### Discussion:

CARB's Research Program plays an important role in meeting the challenges of increasingly stringent federal air quality standards and long-term climate goals. It serves as the foundation for effective regulatory decisions. This proposed research contract is responsive to CARB's programmatic goals, emerging air quality, health, and climate issues, and public input.

Flux tower measurements of coastal, saline wetlands greenhouse gases are largely concentrated in Northern California. The San Joaquin Bay Delta has the most flux towers of any landscape in California, creating a significant data gap in Southern California's coastal saline wetlands. Existing, limited data signals highly variable carbon dioxide and methane dynamics and a potential for these wetlands to "drown" under sea level rise scenarios. The project will measure carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) fluxes, and vertical soil carbon accretion/subsidence rates in Southern California coastal wetlands. It will also measure biogenic volatile organic compound (BVOC) emissions to improve vegetation emission factors. This work will help respond to Assembly Bill 1279, which requires CARB to track California's path to carbon neutrality by developing inventories of greenhouse gas emissions and ecosystem carbon stocks.

## Summary and Impacts:

The outcomes of this contract could be used to support future CARB's Natural and Working Lands Carbon Inventory and Scoping Plan updates, broaden wetland types in scenario modeling, and inform the State Implementation Plan. The estimated cost to fund this proposed research contract is \$800,000. Board approval will authorize staff to implement this contract to undertake the activities described in this proposal.