



# **SB 1383 Dairy & Livestock**

## **Greenhouse Gas Reduction**

### **Working Group Meeting**

January 5, 2018  
CalEPA Building  
Byron Sher Auditorium

# Dairy Subgroup #3: Research Needs, Including Enteric Fermentation

## Committee Membership Breakdown

### CO-CHAIRS

- Paul Sousa (Western United Dairymen)
- Robert Parkhurst (Environmental Defense Fund)
- Michael FitzGibbon (Air Resources Board)

12 Subgroup committee members consists of representatives from...

- Dairy industry
- Academia
- Environmental justice
- Conservation groups
- Technology and fabrication industry
- Local, state, and federal agencies

With expertise covering topics such as:

- Water quality
- Air quality and emission impacts
- Chemistry and biology of effluents
- Dairy operation and engineering
- Public policy, health, and advocacy



# Research Update: Identifying Knowledge Shortfalls and Research Needs

- Assess localized air pollution issues associated with dairies, especially in **environmental justice** communities
- Develop a long-term **dairy greenhouse gas (GHG) and air monitoring program** to track progress on reducing emissions
- **Improve emission inventories** (e.g., methane, ammonia, etc.) using California-specific data
- **Regional GHG and AQ modeling** to evaluate short- and long-term benefits of air pollution mitigation strategies



# PROGRESS *report*

## Summary of Dairy Subgroup #3 Activities

- Two subgroup meetings conducted (August 14 and December 18, 2017)
- Developed a draft Research Prospectus Template that will be used to help outline future research needs
- Developing outline for 2018 meetings

June 2017 to December 2017

# Draft Recommendation

- Complete the Research Prospectus to improve our knowledge on:
  - The accuracy of GHG and other air pollutant emissions from California dairies
  - The potential GHG emission reductions and air quality impacts from implementation of methane mitigation strategies
- The completed Research Prospectus will help:
  - California funding agencies and organizations prioritize research projects
  - Develop effective policies and regulations to reduce methane emissions from California dairies
  - Identify air pollution mitigation strategies to improve local and regional air quality
  - Achieve California's methane emission reduction goals

**Subgroup #3:  
Research**

# Environmental Justice Considerations

Subgroup #3:  
Research

# Environmental Justice Position

The completed Research Prospectus will help:

- Develop effective land-use policies and regulations addressing,
  - Buffer zones (GHG, toxics, air, odor, flies)
  - Transportation (weight & load limitations)
  - Safety (incomplete streets passing housing & schools)
  - Scale (effectiveness of AQ/GHG strategies by dairy size)
- Identify methane reduction strategies that reduce ammonia
- Identify the impacts of methane reduction strategies on water quality



**Subgroup #3:  
Research**

# 2018 Roadmap For Developing Final Recommendations

- Develop a master Research Prospectus document based on subcommittee member's input
- Have the document reviewed by stakeholders
- Hold a public meetings to present the document and receive public comments
- Disseminate the completed document to various funding agencies and organizations
- Continue research discussions and collaborations
- Next meetings: at the end of January, and February 28, 2018



**Subgroup #3:  
Research**