



Cap-and-Trade

Adaptive Management

*Public Meeting
November 2015*

California Environmental Protection Agency

 **Air Resources Board**

Air Pollution Control Programs

- Programs at Federal, State, and Local levels
- Reduce greenhouse gas, toxic, and criteria pollutant emissions
- Improve health of California residents

Cap-and-Trade Program

- Further protects public health by reducing greenhouse gas emissions
- Price on carbon incentivizes emissions reductions

Overview

- Proposed Cap-and-Trade Adaptive Management Process monitors and responds to emissions trends resulting from Cap-and-Trade
- Proposed Process will monitor changes in emissions at:
 - Individual Cap-and-Trade Facilities, and
 - California Communities with Multiple Cap-and-Trade Facilities (Clusters)
- Proposed Process will also monitor emissions over multiple years (Trends)
 - Including for industrial sectors
- Adaptive Management may be used as model for National 111(d) Clean Power Plan

Introduction

- ARB believes localized air impacts are very unlikely
- In 2011, Board approved Adaptive Management Plan to monitor the effects of the Cap-and-Trade Program on localized air quality impacts
- Adaptive Management provides the tools for tracking emissions from Cap-and-Trade facilities
 - Transparent public process for addressing potential emissions increases in California communities

Development of Process

- Proposed Process developed in collaboration with:
 - California Air Pollution Control and Air Quality Management Districts
- Regional meetings and November 2015 ARB Board Hearing provide opportunities for stakeholders and the public to provide comments on the Proposed Process
- Continue to work with the public, local air districts , and stakeholders to design Cap-and-Trade Adaptive Management Process

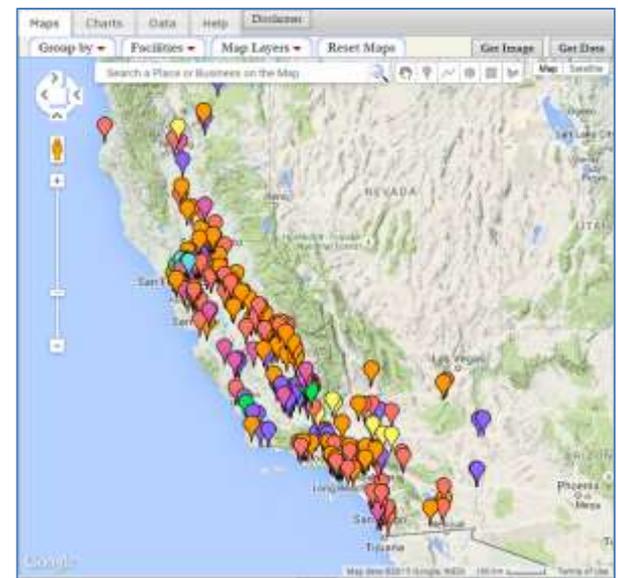
Individual Facility Analysis

- ARB will monitor emissions at Cap-and-Trade facilities located in California
- Compare most recent report year greenhouse gas emissions data to previous year
- Consider any changes in emissions specifically reported by facility operators

Greenhouse Gas Emissions Mapping Tool

- ARB will track greenhouse gas emissions in California communities with multiple Cap-and-Trade facilities (Clusters) using publicly available Greenhouse Gas Emissions Mapping Tool

<http://www.arb.ca.gov/ei/tools/ghgfacilities/>



Community Analysis

- Using the mapping tool, staff will conduct the community analysis by:
 - Positioning a defined shape, such as a circle, in a California community with multiple Cap-and-Trade facilities
 - Compiling aggregate greenhouse gas emissions for the specific area
 - Comparing aggregate emissions with the previous year's cumulative emissions for the same selected area
 - Repeating above process for each California community with multiple Cap-and-Trade facilities
- Public can follow our analysis, or conduct their own using Greenhouse Gas Emissions Mapping Tool

Multiple Year Trend Analysis

- Monitor emissions over multiple years (Trends) at:
 - Individual facilities
 - California communities
 - Across industrial sectors
- Collect multiple years of emissions data reports for individual facilities, community clusters, and industrial sectors
- Calculate trend line (slope trajectory) for each series of collected emissions data reports to monitor general changes across multiple years

Results and Findings

- ARB is proposing to use a combination of factors to evaluate localized trends occurring under Cap-and-Trade
- ARB will establish Adaptive Management Working Group to provide recommendations on key aspects of the analysis

Adaptive Management Working Group

- ARB will assemble an Adaptive Management Working Group consisting of the following participants:
 - Environmental Health Representative
 - Public Health Expert
 - Air District Official
 - Environmental Justice Representative
 - Industry Stakeholder

Responses

- ARB's long-standing approach to implementing programs to ensure that goals are met
- Potential responses if localized trends are identified include:
 - Air Monitoring Studies
 - ARB Sponsored Research Study
 - Health Risk Assessments
 - Regulatory Amendments
 - Amendments to District Rules

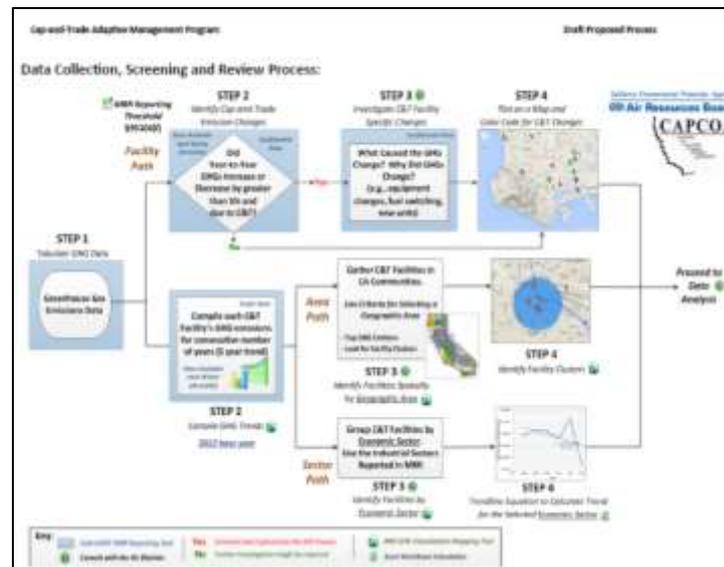
Public Process

- Interactive Greenhouse Gas Emissions Mapping Tool allows stakeholders to conduct their own analyses and work collaboratively with ARB staff to monitor greenhouse gas changes at individual facilities, in California communities, and across industrial sectors
- On annual basis, ARB commits to:
 - Release Adaptive Management Findings
 - Present Findings at Public Board Hearing
 - Consider Public Comments Received
 - Continue Seeking Input from Working Group Participants and Local Air District Partners



Proposed Process Flowchart

- ARB has developed proposed Adaptive Management Process Flowchart detailing steps staff intends to take to monitor emissions changes at individual facilities, in California communities, and across industrial sectors



Next Steps

- Comments received at these public meetings will be considered by ARB and incorporated into draft proposal
 - Written comments due December 4, 2015
- Revised Draft Adaptive Management Process planned release – early 2016
- Additional regional public meetings in 2016 to provide public opportunity to comment on revised draft Adaptive Management Process
- Present final proposed Adaptive Management Process to Board in 2016

Public Comments

- Please provide comments by December 4, 2015
 - www.arb.ca.gov/cc/capandtrade/adaptivemanagement/adaptivemanagement.htm
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