

Seeking SIP Creditability for Voluntary Incentive-based Emission Reductions in California's San Joaquin Valley

CPS 372 – Combustion System Improvement



USDA Air Quality Task Force
Beltsville, Maryland
December 4, 2013

Today's Discussion

- ▶ San Joaquin Valley State Implementation Plans
- ▶ National Air Quality Initiative
- ▶ Statements of Principles
- ▶ NRCS's Role



Photo by Johnnie Siliznoff, USDA NRCS

State Implementation Plan (SIP)

- ▶ Required by the Federal Clean Air Act
 - Areas with unhealthy levels of criteria air pollutants
- ▶ Attainment plans are developed
 - Describe how the planning area will attain the NAAQS
 - Attainment deadlines are based on severity
 - Comprehensive and are not single documents
 - Different agency responsibilities and jurisdictions
- ▶ ARB is the lead agency for California and forwards the SIP to EPA-Region 9 for approval
- ▶ EPA publishes their findings in the Federal Register

San Joaquin Valley Ozone SIPs

1997 8-hour ozone NAAQS (84 ppb)

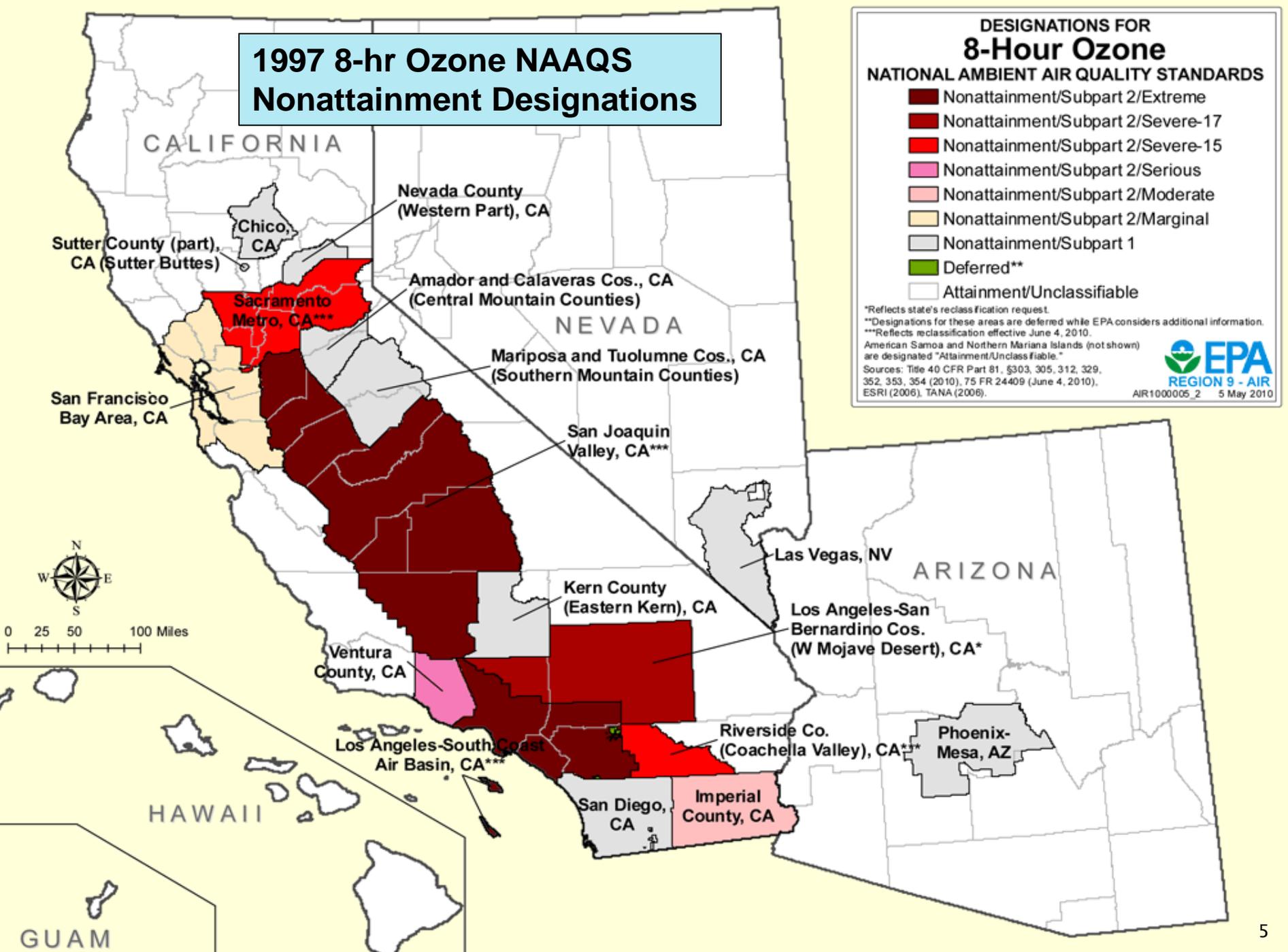
- ▶ Air Resources Board Resolution 07-28, Appendix B,
 - Seeks 88-93 tons/day NO_x reductions by 2017
 - 5-10 tons/day NO_x reductions are from replacing in-use uncontrolled off-road mobile agricultural compression-ignition (CI) engines with Tier 3- and Tier 4-emissions certified CI engines
- ▶ SJV Air Pollution Control District 2007 Ozone Plan
 - Seeks 465 tons/day NO_x and 111 tons/day VOC reductions by 2023 from stationary and mobile sources
- ▶ Both plans rely on regulatory- and incentive-based emission reductions to achieve attainment goals

1997 8-hr Ozone NAAQS Nonattainment Designations

DESIGNATIONS FOR 8-Hour Ozone NATIONAL AMBIENT AIR QUALITY STANDARDS

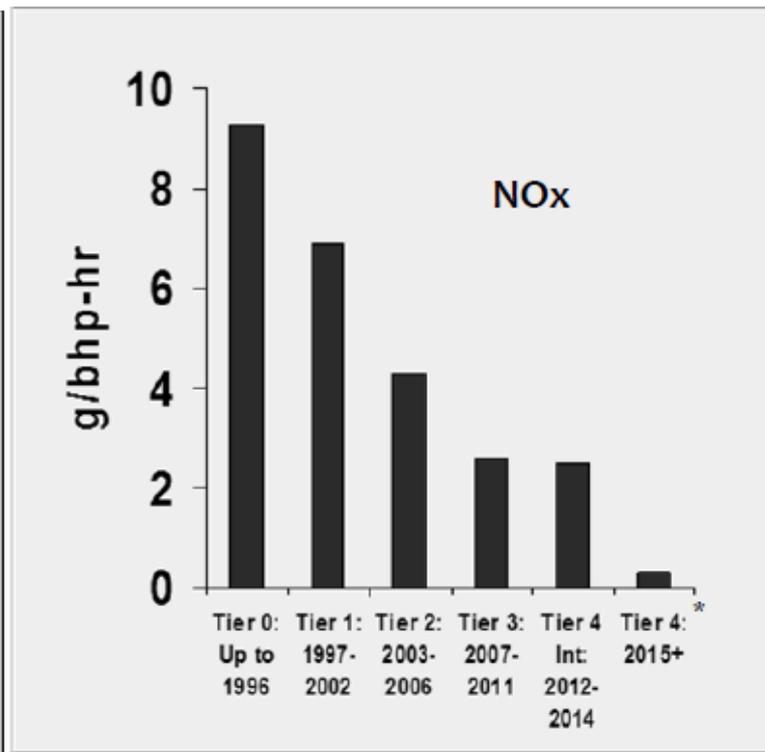
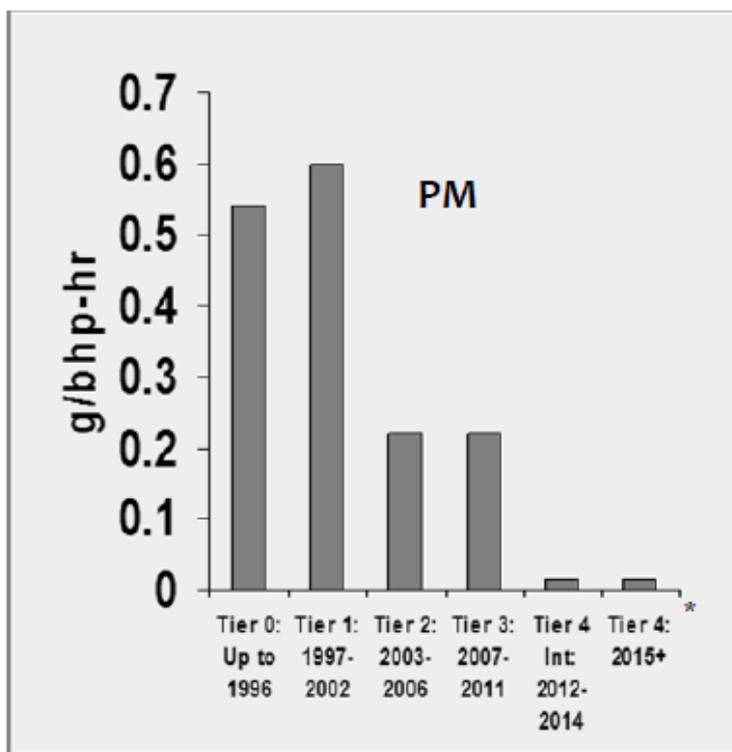
- Nonattainment/Subpart 2/Extreme
- Nonattainment/Subpart 2/Severe-17
- Nonattainment/Subpart 2/Severe-15
- Nonattainment/Subpart 2/Serious
- Nonattainment/Subpart 2/Moderate
- Nonattainment/Subpart 2/Marginal
- Nonattainment/Subpart 1
- Deferred**
- Attainment/Unclassifiable

*Reflects state's reclassification request.
 **Designations for these areas are deferred while EPA considers additional information.
 ***Reflects reclassification effective June 4, 2010.
 American Samoa and Northern Mariana Islands (not shown) are designated "Attainment/Unclassifiable."
 Sources: Title 40 CFR Part 81, §303, 305, 312, 329, 352, 353, 354 (2010); 75 FR 24409 (June 4, 2010); ESR1 (2006); TANA (2006).
 AIR1000005_2 5 May 2010



How Cleaner Technologies Help Meet Near- and Long-Term Air Quality Goals

EXAMPLE: Emissions standards for 100-174 Hp engines



* Tier 4 for mobile agricultural equipment expected to be in 2020

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National Air Quality Initiative in California

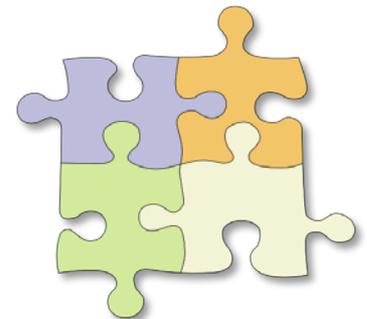
- ▶ EQIP was reauthorized in the 2008 Farm Bill
- ▶ Strong partner support
 - Payments to improve off-road mobile ag engine emissions
 - Achieve attainment goals
- ▶ 2008 SJV Emissions Inventory
 - ARB reports 44.61 tons/day NO_x from diesel-powered off-road mobile agricultural equipment
 - ARB is updating their emissions inventory
- ▶ Partnership with SJVAPCD
 - Methodologies and assistance
- ▶ FY2009 first year of implementation



Do incentives work for a SIP?

Voluntary incentive-based emissions reductions could complement regulatory-based emission reductions by becoming SIP creditable

- ▶ EPA supports including incentive-based emission reduction benefits in SIPs
- ▶ ARB recognizes that voluntary incentives are critical toward achieving attainment goals
- ▶ SJVAPCD is committed to providing incentive funds per their 2007 8-hour Ozone Plan
- ▶ Strong partner support



Statement of Principles

San Joaquin Valley Statement Of Principles

- ▶ Signed in December 2010
 - EPA-Region 9, NRCS-CA, ARB, SJVAPCD
- ▶ Establishes a general framework for SIP creditability
- ▶ Voluntary reductions from mobile off-road ag equipment
- ▶ Recognizes the heavy investment made from the public sector and agricultural community for reducing emissions

National Statement of Principles

- ▶ Signed in July 2012
 - US EPA and USDA NRCS

*Ed Burton, California State Conservationist, Retired
Fresno County Farm Bureau, May 2009*



2010 SJV Statement of Principles

1. The SJVAPCD, NRCS, ARB, and EPA will work collaboratively to develop a mechanism to provide SIP credit for emission reductions from incentive programs that meet the criteria of ensuring the reductions are **surplus, quantifiable, enforceable, and permanent**
2. The SJVAPCD and NRCS will each submit annual reports of prior year's completed projects and associated emission reductions to EPA and ARB
3. EPA will review the annual reports and credit the emission reductions if the four criteria are met
4. NRCS and SJVAPCD will assure ongoing **accountability** for their respective programs

NRCS' role

- ▶ Incorporate SIP elements into California's Field Office Technical Guide
 - CPS 372-Specifications, O&M, and Practice Requirements
- ▶ Field Office communication, training, and support
- ▶ Develop, populate and manage a stand-alone emissions database
- ▶ 1st report submitted to SJVAPCD on April 4, 2013
 - FY2009-12 completed contracts
 - 940 new engines installed
 - Working with EPA and SJVAPCD on determining the actual reductions



NRCS & SJVAPCD Mobile Off-Road Ag Engines

San Joaquin Valley for FY2009-13 (as of October 2013)

^SJVAPCD co-funded 118 of the 295 engines for FY2009

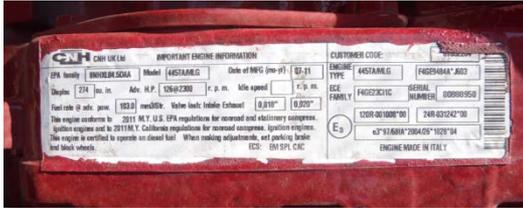
*Does not include the investments made by the participating producers

Fiscal Year	NRCS New Engines	NRCS Obligations (Millions)	SJVAPCD New Engines	SJVAPCD Obligations (Millions)	Total New Engines	Total Obligations *(Millions)	Projected NOx Reductions (tons/day)
2009	295	\$15.8	-	^\$2.1	295	\$17.9	1.49
2010	404	\$20.6	118	^0.6	522	\$21.2	2.49
2011	296	\$17.7	331	\$10.9	627	\$28.7	1.89
2012	321	\$17.6	513	\$16.7	834	\$21.8	1.99
2013	292	\$13.6	716	\$30.0	1,008	\$43.6	1.53
Total	1,318	\$85.3	1,678	\$60.3	3,286	\$133.2	9.39

Recent Developments

- ▶ SJVAPCD Rule 9610 (State Implementation Plan Credit for Emission Reductions Generated through Incentive Programs) was adopted June 20, 2013
 - Administrative process through which several incentive-based emission reductions can receive federal SIP credit
 - Includes the mechanism for NRCS to submit annual emissions reports to the SJVAPCD
- ▶ ARB Resolution 13-24, adopted on October 25, 2013
 - Provides ARB with the administrative mechanism for incentive-based emission reductions from mobile off-road agricultural equipment to receive SIP credit.
 - Incentive-based emission reductions to be applied toward the 2007 ARB SIP commitment.

What's Next for NRCS in CA?



- ▶ Continued collaboration with EPA, ARB, SJVAPCD, and our partners
- ▶ Data collection, entry and management
- ▶ Updates to CPS-372 documents and the Field Office Technical Guide
- ▶ Annual reporting from participants
- ▶ Annual reporting to SJVAPCD
- ▶ Emissions data for EPA approval
- ▶ Training for and support of NRCS field office staff



Questions?

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www.ca.nrcs.usda.gov/programs/airquality/airquality.html

