

Environmental Quality Incentives Program

The Environmental Quality Incentives Program (EQIP) is a voluntary, conservation program administered by NRCS that can provide financial and technical assistance to install conservation practices that address natural resource concerns. The purpose of EQIP is to promote agricultural production, forest management, and environmental quality as compatible goals; to optimize environmental benefits; and to help farmers and ranchers meet Federal, State, Tribal, and local environmental regulations.

EQIP Application Sign-up and Cut-off Dates

NRCS accepts EQIP applications year-round, but establishes cutoff dates to make funding selections for eligible, screened, and ranked applications. To be ready for EQIP funding consideration, interested applicants will need to: (1) Develop a conservation plan, (2) Submit an application, (3) Meet program eligibility requirements, and (4) Approve their 'EQIP schedule of operations'. The time needed to complete a conservation plan and process eligibility can vary, from a few weeks to more than a month, depending on the complexity of the farming operation.

Develop a Conservation Plan

A conservation plan includes all practices, regardless of the program's financial assistance, that a producer or landowner has agreed to adopt for the agricultural operation and/or associated agricultural lands. Interested applicants are encouraged to request conservation planning and technical assistance from a local NRCS field office to help with the development of a conservation plan.

Submitting an Application

Interested applicants may apply for EQIP by completing and submitting the application, Form NRCS-CPA-1200, Conservation Program Application, to the NRCS field office in person, by phone, email, or fax in the county which you own land or where you have an agricultural operation or non-industrial private forest land.

Program Eligibility Requirements

In order to be considered eligible for EQIP the applicant must have a vested interest in production agricultural or non-industrial private forest land and meet other program eligibility requirements.

'EQIP schedule of operations'

The basis for an application is the 'EQIP schedule of operations' and is derived from the applicant's conservation plan. The EQIP 'schedule of operations' identifies the conservation practices to be implemented, timing of the implementation, practice location, and payment rates.

EQIP Screening, Ranking and Funding

EQIP funding decisions are based on an application evaluation process that includes screening tools and ranking criteria. Screening tools are worksheets used to prioritize an application based on factors such as: a completed conservation plan; readiness to implement practices; history of contract compliance; and resource priorities addressed in the 'EQIP schedule of operations'. Ranking criteria considers the anticipated benefit of a conservation system, or practice, in the 'EQIP schedule of operations' to a natural resource concern.

NRCS Field Office Contact Information

For more information about EQIP, how to apply and program eligibility, interested applicants should contact a NRCS field office in the county which you own land or where you have an agricultural operation. Visit <https://offices.sc.egov.usda.gov/locator/> to find the NRCS representative for your county.

About the National Air Quality Initiative (NAQI)

Under the Agricultural Act of 2014, the Secretary shall provide eligible producers with technical and financial opportunities to address serious air quality concerns from agricultural operations and help meet regulatory requirements.

In Fiscal Year 2018 (FY2018), the NAQI funding pool is designed to help agricultural producers meet air quality compliance requirements and offer opportunities to support practices that reduce oxides of nitrogen (NO_x), volatile organic compounds (VOC), and particulate matter (PM) emissions from agricultural sources helps achieve and maintain the health- and welfare-based National Ambient Air Quality Standards (NAAQS) in California.

Financial assistance priority is targeted toward counties that have been identified as having significant air quality resource concerns, by being designated by the US Environmental Protection Agency (EPA) as “nonattainment” of the Ozone and/or Particulate Matter NAAQS or predesignated as “Attainment (Maintenance Area)” for the PM₁₀ or PM_{2.5} NAAQS. These areas experience air pollution levels that persistently exceed the NAAQS established by the Clean Air Act. NAAQS nonattainment area designations are posted on-line by the EPA at: <https://www.epa.gov/green-book>.

The typical conservation treatment for the National Air Quality Initiative is to reduce diesel exhaust emissions through the removal from service and permanent destruction of:

- A Fully functional in-use off-road mobile agricultural equipment powered and self-propelled by a nonroad compression-ignition engine (e.g. diesel-fueled engines) rated of 25.0 brake-horsepower (bhp) or higher (based on manufacturer’s advertised horsepower rating); and,
- Replace with a new “like” off-road mobile agricultural equipment powered and self-propelled by a new nonroad diesel engine rated at 25.0 bhp or higher (based on manufacturer’s advertised horsepower rating) and within 125 percent of the baseline horsepower rating that meets Tier 4 emissions-certification, or meets 2017 or 2018 model-year California emission standards or equivalent, as determined by the applicable EPA Engine Family Name and State of California Air Resources Board (ARB) Executive Order (or EPA Certificate of Conformity, when applicable).

Significant emission reduction benefits are achieved when higher-polluting off-road agricultural equipment are retired earlier than through normal turnover and replaced with new “like” equipment powered by emissions-certified nonroad diesel engines. The applicable NRCS Conservation Practice Standard (CPS) is 372 – *Combustion System Improvement*.

Examples of off-road mobile equipment used exclusively in agriculture and powered and self-propelled by nonroad diesel engines eligible for the NAQI (e.g. “L” designation in the EPA Engine Family Name on Tier-certified engines):

- Tractors
- Loaders
- Bulldozers
- Harrowbeds
- Rough-Terrain Forklifts
- Harvesters
- Sprayers
- Sweepers
- Combines
- Swathers

Five worksheets are included at the end of this fund pool description:

1. California In-Use Existing Equipment/Engine (Baseline) Worksheet and Instructions;
2. California New Equipment/Engine Worksheet (Proposed) and Instructions;
3. California Equipment/Engine Destruction Certification Worksheet;
4. California Emissions Calculation Worksheet.
5. San Joaquin Valley Annual Reporting Worksheet

The first two worksheets are for the participant to document the proposed in-use and new nonroad engines and equipment information for submittal to the NRCS with an EQIP application. The participant may use the third worksheet to document equipment and engine destruction and disposal in accordance with *CPS 372-Specifications*. The conservation planner and/or the participant uses the fourth worksheet for calculating the estimated emissions and emission reductions associated with the conservation practice. The fifth worksheet is for *San Joaquin Valley participants* providing annual reports to the NRCS that documents their new equipment total hour usage over the 10-year practice lifespan.

For FY2018, interested owners and/or operators of land managed for agricultural production in the following counties may be eligible for the National Air Quality Initiative: ***Alameda, Butte, Calaveras, Contra Costa, El Dorado, Fresno, Imperial, Inyo, Kern, Kings, Los Angeles, Madera, Marin, Mariposa, Merced, Mono, Napa, Nevada, Orange, Placer, Riverside, Sacramento, San Bernardino, San Diego, San Joaquin, San Luis Obispo, San Mateo, Santa Clara, Solano, Sonoma, Stanislaus, Sutter, Tulare, Ventura, Yolo, and Yuba.***

Refer to Table 1 for more information on the resource priority for each county included in the National Air Quality Initiative.

Table 1. Resource Priorities and California Nonattainment Designations¹

Participating Counties	NAQI Resource Priority			County Nonattainment Designation for NRCS NAQI Ranking Purposes Only ¹ Pollutant, NAAQS Nonattainment Designation, Standard Year
	Ozone	PM10	PM2.5	
Alameda	X		X	PM2.5: Moderate (2006) 8-Hr O ₃ : Marginal (2008)
Butte	X		X	PM2.5: Moderate (2006 [C]) 8-Hr O ₃ : Marginal (2008)
Calaveras	X			8-Hr O ₃ : Marginal (2008)
Contra Costa	X		X	PM2.5: Moderate (2006) 8-Hr O ₃ : Marginal (2008)
El Dorado	X		X	PM2.5: Moderate (2006 [S]) 8-Hr O ₃ : Severe-15 (2008 [SM])
Fresno	X	X	X	PM10: Maintenance Area/Serious (1987) 12/2008 PM2.5: Serious (1997 & 2006), Moderate (2012), 8-Hr O ₃ : Extreme (2008)

Participating Counties	NAQI Resource Priority			County Nonattainment Designation for NRCS NAQI Ranking Purposes Only ¹ Pollutant, NAAQS Nonattainment Designation, Standard Year
	Ozone	PM10	PM2.5	
Imperial	X	X	X	PM10: Serious (1987 [IV]) PM2.5: Moderate (2006 & 2012) 8-Hr O ₃ : Moderate (2008)
Inyo		X		PM10: Serious (1987 [OV])
Kern	X	X	X	PM10: Serious (1987 [EKC]), Ma Area/Serious (1987 [SJV]) PM2.5: Serious (1997 & 2006 [SJV]), Moderate (2012 [SJV]) 8-Hr O ₃ : Extreme (2008 [SJV]), Moderate (2008 [EKC])
Kings	X	X	X	PM10: Maintenance Area/Serious (1987) 12/2008 PM2.5: Serious (1997 & 2006), Moderate (2012), 8-Hr O ₃ : Extreme (2008)
Los Angeles	X	X	X	PM10: Maintenance Area/Serious (1987 [SC]) 7/2013 PM2.5: Serious (2006 [SC]), Moderate (1997 & 2012 [SC]) 8-Hr O ₃ : Extreme (2008 [SC]), Severe-15 (2008 [WMD])
Madera	X	X	X	PM10: Maintenance Area/Serious (1987) 12/2008 PM2.5: Serious (1997 & 2006), Moderate (2012), 8-Hr O ₃ : Extreme (2008)
Marin	X		X	PM2.5: Moderate (2006) 8-Hr O ₃ : Marginal (2008)
Mariposa	X			8-Hr O ₃ : Moderate (2008)
Merced	X	X	X	PM10: Maintenance Area/Serious (1987) 12/2008 PM2.5: Serious (1997 & 2006), Moderate (2012), 8-Hr O ₃ : Extreme (2008)
Mono		X		PM10: Moderate (1987 [MB])
Napa	X		X	PM2.5: Moderate (2006) 8-Hr O ₃ : Marginal (2008)
Nevada	X			8-Hr O ₃ : Moderate (2008 [WNC])
Orange	X	X	X	PM10: Maintenance Area/Serious (1987) 7/2013 PM2.5: Serious (2006), Moderate (1997 & 2012) 8-Hr O ₃ : Extreme (2008)
Placer	X		X	PM2.5: Moderate (2006 [S]) 8-Hr O ₃ : Severe-15 (2008 [SM])
Riverside	X	X	X	PM10: Serious (1987 [CV]) PM2.5: Serious (2006 [SC]), Moderate (1997 & 2012 [SC]) 8-Hr O ₃ : Extreme (2008 [SC]), Severe-15 (2008 [CV])

Participating Counties	NAQI Resource Priority			County Nonattainment Designation for NRCS NAQI Ranking Purposes Only ¹ Pollutant, NAAQS Nonattainment Designation, Standard Year
	Ozone	PM10	PM2.5	
Sacramento	X	X	X	PM10: Maintenance Area/Moderate (1987) 10/2013 PM2.5: Moderate (2006) 8-Hr O ₃ : Severe-15 (2008)
San Bernardino	X	X	X	PM10: Moderate (1987) PM2.5: Serious (2006 [SC]), Moderate (2012 & 1997 [SC]) 8-Hr O ₃ : Extreme (2008 [SC]), Severe-15 (2008 [WMD])
San Diego	X			8-Hr O ₃ : Moderate (2008)
San Joaquin	X	X	X	PM10: Maintenance Area/Serious (1987) 12/2008 PM2.5: Serious (1997 & 2006), Moderate (2012), 8-Hr O ₃ : Extreme (2008)
San Luis Obispo	X			8-Hr O ₃ : Marginal (2008 [ESLO])
San Mateo	X		X	PM2.5: Moderate (2006) 8-Hr O ₃ : Marginal (2008)
Santa Clara	X		X	PM2.5: Moderate (2006) 8-Hr O ₃ : Marginal (2008)
Solano	X		X	PM2.5: Moderate (2006) 8-Hr O ₃ : Severe-15 (2008 [SM]), Marginal (2008, SFBA)
Sonoma	X		X	PM2.5: Moderate (2006 [SFBA]) 8-Hr O ₃ : Marginal (2008 [SFBA])
Stanislaus	X	X	X	PM10: Maintenance Area/Serious (1987) 12/2008 PM2.5: Serious (1997 & 2006), Moderate (2012), 8-Hr O ₃ : Extreme (2008)
Sutter	X		X	PM2.5: Maintenance Area/Moderate (2006 [YCM]) 1/2015 8-Hr O ₃ : Severe-15 (2008 [SM])
Tulare	X	X	X	PM10: Maintenance Area/Serious (1987) 12/2008 PM2.5: Serious (1997 & 2006), Moderate (2012), 8-Hr O ₃ : Extreme (2008)
Ventura	X			8-Hr O ₃ : Serious (2008)
Yolo	X		X	PM2.5: Moderate (2006 [S]) 8-Hr O ₃ : Severe-15 (2008 [SM])
Yuba			X	PM2.5: Maintenance Area/Moderate (2006 [YCM]) 1/2015

Source: The California NAAQS attainment designations are derive from the EPA Greenbook, as of September 30, 2017:
https://www3.epa.gov/airquality/greenbook/anayo_ca.html
<https://www3.epa.gov/airquality/greenbook/astate.html>

¹ The intent of is list is to identify the NAQI air quality resource priorities of the eligible counties *for ranking purposes only*. Selected is the most stringent nonattainment designation within a county to support the resource concern for each air pollutant countywide, as the actual NAAQS designations may differ due to partial county designations, multiple air basins, or separate air quality planning regions within a single county

The most stringent designation within a county identifying the applicable air quality planning area will have any of the following notes placed next to the NAAQS year. No notes indicates the NAAQS designation is countywide.

- | | | |
|--------------------------------|-------------------------------|------------------------------------|
| C – Chico | MB – Mono Basin | SM – Sacramento Metro |
| CV – Coachella Valley | OV – Owens Valley | SJV – San Joaquin Valley Air Basin |
| EKC – Eastern Kern County | S – Sacramento | WMD – West Mojave Desert |
| ESLO – Eastern San Luis Obispo | SC – South Coast Air Basin | WNC – Western Nevada County |
| IV – Imperial Valley | SFBA – San Francisco Bay Area | YCM – Yuba City-Marysville |

California Air Resources Board State Implementation Plan (SIP) for the San Joaquin Valley

In 2007, the Air Resources Board (ARB) adopted their “2007 State Strategy for California’s State Implementation Plan for Federal PM2.5 and 8-Hour Ozone Standards”. This “2007 State Strategy” includes a commitment to reduce diesel exhaust emissions from in-use off-road mobile agricultural equipment operating within the San Joaquin Valley. The intent is to accelerate the normal turnover of old agricultural equipment by installing the cleanest emissions-certified fleet as expeditiously as possible through voluntary and regulatory measures in order to achieve NOx emission reductions of 5-10 tons per day by 2018.

Beginning in 2009, a partnership developed with agricultural stakeholders and representatives from the San Joaquin Valley Air Pollution Control District (SJVAPCD), ARB, EPA, and NRCS to help identify the mechanisms where *voluntary measures* through incentive-based emission reductions could receive credit towards meeting these goals and objectives for the San Joaquin Valley. The overall benefits would account for improvements to air quality, public health and welfare, and progress toward attaining the NAAQS pursuant to the Clean Air Act through voluntary measures, thereby postponing or perhaps eliminating any action by ARB to adopt new mobile farm equipment prohibitory rules and regulations.

Applying voluntary incentive-based emission reductions through programs like EQIP toward SIP emission reduction goals had never been tried before. As the ARB and SJVAPCD also administer their own respective voluntary incentive programs, this direction led toward the SJVAPCD adopting Rule 9610 in June 2013. This rule defines the administrative mechanisms where voluntary incentive-based emission reductions could become SIP creditable. SJVAPCD Rule 9610 was approved by the ARB in October 2013 and codified in Section 2428, Title 13, of the California Code of Regulations.

EPA approved the voluntary incentive-based emission reductions pursuant to Rule 9610 as being creditable toward and federally enforceable under California’s SIP, effective May 11, 2015. Overall, Rule 9610 ensures the emission reductions achieved through voluntary incentive programs in the San Joaquin Valley become eligible for SIP credit in accordance with the Clean Air Act.

Included with *CPS 372-Operations and Maintenance*, San Joaquin Valley producers participating in the National Air Quality Initiative are to provide NRCS with reports of their new equipment usage annually over the duration of the practice 10-year lifespan. This information is used to qualify equipment operations and quantify the on-going emission reductions to ensure the air quality benefits continue. The NRCS submits aggregated emissions summary reports to the SJVAPCD and EPA annually, void of any information deemed as confidential, by reporting the SIP-creditable emission reductions achieved within the San Joaquin Valley through EQIP.

To date, the voluntary incentive-based emission reductions administered each by the NRCS and SJVAPCD have together achieved the 2007 State Strategy goal of 5-10 tons per day of NO_x reductions well ahead of the 2018 SIP deadline. ARB, however, is currently developing their 2016 State Strategy for the State Implementation Plan due to EPA strengthening of the 2008 8-hour Ozone NAAQS to 0.075 parts per billion (ppb) and the 2012 Annual PM_{2.5} NAAQS to 12 micrograms per cubic meter (ug/m³). Incentive-based emissions reductions will continue to play an important role with achieving attainment goals.

EPA, ARB and SJVAPCD continues to search for science-based and cost-effective emission reductions from agriculture as new strategies for deploying the cleanest emissions technologies are developed. NRCS and its partners will continue to support voluntary approaches for addressing the air quality resource concerns in the San Joaquin Valley and other air quality challenged regions in California.

More information on the San Joaquin Valley SIP and diesel engines powering off-road mobile agricultural equipment can be found at the ARB and SJVAPCD websites at:

- ARB Agricultural Equipment Regulation: <http://www.arb.ca.gov/ag/agtractor/agtractor.htm>
- ARB 2007 State Strategy: <http://www.arb.ca.gov/planning/sip/2007sip/2007sip.htm>
- ARB 2016 State Strategy: <https://www.arb.ca.gov/planning/sip/2016sip/2016sip.htm>
- SJVAPCD Rule 9610: http://www.valleyair.org/rules/currnrules/9610_CleanRule.pdf
- SJVAPCD Rule 9610 Procedures and Annual Demonstration Reports:
http://www.valleyair.org/MOP/mop9610_idx.htm

Land Uses for the NAQI Fund Pool

Only applications for agricultural operations that address resource concerns on at least one land use type listed below will be considered for financial assistance from this EQIP Fund Pool. The descriptions below are the general NRCS land use definitions - applications should fit within, but do not need to exactly match, these descriptions.

- **Crop:** Land used primarily for the production and harvest of annual or perennial field, forage, food, fiber, horticultural, orchard, vineyard, or energy crops.
- **Forest:** Land on which the primary vegetation is tree cover (climax, natural or introduced plant community) and use is primarily for production of wood products or non-timber forest products.
- **Pasture:** Land composed of introduced or domesticated native forage species that is used primarily for the production of livestock. Pastures receive periodic renovation and cultural treatments, such as tillage, fertilization, mowing, weed control, and may be irrigated. Pastures are not in rotation with crops.

- **Range:** Land used primarily for the production of grazing animals. Includes native plant communities and those seeded to native or introduced species, or naturalized by introduced species that are ecologically managed using range management principles.
- **Farmstead:** Land used for facilities and supporting infrastructure where farming, forestry, animal husbandry, and ranching activities are often initiated. This may include dwellings, equipment storage, plus farm input and output storage and handling facilities.

Resource Concerns for the NAQI Fund Pool

Only applications for agricultural operations that address at least one resource concern listed below will be considered for financial assistance through this EQIP Fund Pool. The descriptions below are general NRCS natural resource definitions, applications should fit within, but do not need to exactly match, these descriptions.

- ❖ **AIR QUALITY IMPACTS** – Direct or indirect emissions of compounds to the atmosphere that impact outdoor ambient air quality.
 - **Emissions of Ozone Precursors:** Ozone (O₃) precursor gases are oxides of nitrogen (NO_x) and volatile organic compounds (VOCs) pollutants. Ambient ozone is formed in the atmosphere through a photochemical reaction of NO_x and VOC pollutants in the presence of sunlight, where its reactivity can be influenced by ambient heat. Exposure to ambient ozone can cause adverse impacts to public health, plants and animals. Sources of NO_x and VOC emissions are from naturally occurring “biogenic sources” and from “anthropogenic sources” that include livestock activities, pesticide application, solvent and gasoline storage and use, nitrification/denitrification processes, and combustion from boilers, engines and open burning.
 - **Emissions of Particulate Matter (PM) and PM Precursors:** Particulate Matter is classified by its size where PM_{2.5} and PM₁₀ have an aerodynamic diameter less than 2.5 and 10 micrometers, respectively. PM_{2.5} is directly emitted to the atmosphere by combustion processes such as from diesel engine exhaust and open burning, and to a lesser degree by mechanical means such as dust from vehicle traffic on unpaved roads or tillage activities. PM_{2.5} is also formed in the atmosphere by chemical reactions of PM precursor gases that primarily include oxides of nitrogen (NO_x) and ammonia (NH₃). Sources of these PM_{2.5} precursor gases can be from combustion activities, fertilizer application, and animal operations. Much of PM₁₀ is mechanically generated and directly emitted to the atmosphere by actions that disaggregate the soil such as tillage operations, unpaved roads and field travel, animal movement, harvesting activities, bulk material storage and handling, and wind erosion. Visible PM emissions are typically geologic in origin and range in different sizes that may include PM_{2.5} and PM₁₀.

Eligible NRCS Conservation Practices

All conservation practices planned for financial assistance must be included in the 'EQIP schedule of operations' and address a resource concern identified in this EQIP Fund Pool. NRCS conservation practices eligible for financial assistance through this EQIP Fund Pool are listed in the below table.

For more information about NRCS conservation practices visit the following website link for NRCS conservation practice standards:

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/?cid=NRCSDEV11_001020

Table 2. Eligible Conservation Practices

Practice Code	Conservation Practice Name	Practice Payment Scenario	Units	Lifespan
372	Combustion System Improvement	Mobile IC, 25-160 bhp	no	10 years
372	Combustion System Improvement	Mobile IC, >160 bhp	no	10 years

The Combustion System Improvement Practice Standard and more information are available on-line at:

- CPS 372 – Combustion System Improvement:
<http://efotg.sc.egov.usda.gov/references/public/CA/372-std-09-2010.pdf>
- CPS 372 – Specifications:
<http://efotg.sc.egov.usda.gov/references/public/CA/372-spec-ca-11-14.doc>
- CPS 372 – Operations and Maintenance
<http://efotg.sc.egov.usda.gov/references/public/CA/372B-OM-ca-8-13.doc>
- CPS 372 – Implementation Requirements
<http://efotg.sc.egov.usda.gov/references/public/CA/372-IR-ca-11-14.docx>
- CA Air Quality Tech Note 1 – Glossary for California Off-Road Agricultural Engines
https://efotg.sc.egov.usda.gov/references/public/CATN_AQ01_CPS372-EngineGlossary_11-16.pdf
- CA Air Quality Tech Note 2 – Engine Family and Tier-Certified Emission Standards
http://efotg.sc.egov.usda.gov/references/public/CA/TN-AQ02-CPS372_EngineFamilyName-TIER_Standards.pdf.
- CA Air Quality Tech Note 3 – State Implementation Plan Creditability of Voluntary Incentive-Based Emission Reductions from Replacing Off-Road Mobile Agricultural Equipment
https://efotg.sc.egov.usda.gov/references/public/CATN-AQ-03_CPS372_SIP_Creditability.pdf

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BASELINE IN-USE EQUIPMENT AND ENGINE WORKSHEET

California Air Quality – CPS 372 Combustion System Improvement
USDA Natural Resources Conservation Service

The applicant is to complete a separate worksheet for each in-use equipment/engine
See Instructions on the back before answering questions below

Applicant Name:

1. Report the total acres this equipment/engine serves:

2. Years operated on these acres:

3. Fuel Type

- Diesel
- B20 diesel
- B100 biodiesel
- Other:

4. Emissions Tier
Level:

- Non-Tier
- Tier 1
- Tier 2

5. Describe the in-use equipment (check one):

- Wheeled Tractor
- Rubber-Tired Loader
- Tracked Tractor
- Rough-Terrain Forklift
- Bulldozer
- Stationary Diesel-Powered Irrigation
- Portable Diesel-Powered Irrigation
- Other:

6. Name of Equipment/Engine Owner:

7. Year Purchased:

8. Equipment Manufacturer

14. Engine Manufacturer

9. Equipment Model:

15. Engine Model:

10. Equipment Model Year:

16. Engine Model Year:

11. Equipment VIN:

17. Engine Serial No:

12. Annual Hours of Operation:

18. Engine Horsepower (bhp):

13. Annual Fuel Usage (gal/year):

19. PTO Horsepower:
(if applicable)

20. EPA Engine Family Name:
(For Tier 1 or 2, attach the ARB Executive Order)

21. Months in Operation:

- January
- February
- March
- April
- May
- June
- July
- August
- September
- October
- November
- December

Operates throughout the year

22. The planned location on where the equipment/engine will be scrapped and properly disposed:

23. *The applicant is to provide two documents verifying engine and equipment ownership and one document verifying the equipment/engine operations over the previous 12-consecutive month period prior to the submittal of this worksheet and EQIP application.*

24. Additional Information:

Instructions
BASELINE IN-USE EQUIPMENT AND ENGINE WORKSHEET

1. **Report the total acres this equipment/engine serves:** The total acres this off-road mobile agricultural equipment operates on or the total acres being irrigated from the well powered by this diesel engine.
2. **Years Operated on these acres:** Approximate length of time the engine & equipment has been operating at this location.
3. **Fuel Type:** All fuels must be suitable for use in a compression-ignition engine and meet California Air Resources Board (CARB) standards. "Diesel" is represented as petroleum-based "CARB diesel" and may be blended with up to 5% biodiesel (B5). "B20 diesel" is petroleum-based CARB diesel blend of up to 20% biodiesel. "B100" is non petroleum-based biodiesel. More information on California diesel fuels may be found at: <http://www.arb.ca.gov/fuels/diesel/diesel.htm>.
4. **Emissions Tier Level:** Select "Non-Tier" for non-emissions certified or uncontrolled emissions diesel engines. Select "Tier 1" or "Tier 2" for emissions-certified diesel engines. Please consult your engine vendor.
5. **Describe the in-use equipment:** Check the box that best describes the in-use equipment. If "other", please describe (e.g. forage harvester, combine, sprayer, shaker, etc.).
6. **Name of Equipment/Engine Owner:** Identify ownership (see No. 23).
7. **Year Purchased:** The year the equipment was purchased by the owner (see No. 6 and No. 23)
8. **Equipment Manufacturer:** The equipment make. For example, Case IH, John Deere, Massey Ferguson, Ford, etc.
9. **Equipment Model:** The manufacturer's equipment model designation. For example, 1600, 3300, 294S, etc.
10. **Equipment Model Year:** The year in which the equipment was manufactured.
11. **Equipment VIN:** The equipment Vehicle or Product Identification Number (not the engine serial number).
12. **Annual Hours of Operation:** Report the engine's actual annual hours of operation on the acres reported, which will be used for estimating baseline operations. *Exaggerating hours may affect the project screening and ranking, or deem the project ineligible.*
13. **Annual Fuel Usage (gall/year):** The amount of fuel use yearly in gallons. Annual fuel consumption may be used for estimating the baseline annual hours of operation.
14. **Engine Manufacturer:** The make of the diesel engine (e.g. Cummins, John Deere, Perkins, Caterpillar, Fiat, Ford, etc.)
15. **Engine Model:** The model number of the in-use engine. For example, 6BTA5.9C.
16. **Engine Model Year:** The year the engine was manufactured (this can be different than the equipment model year).
17. **Engine Serial No.:** The engine serial number listed on the engine block or engine identification label.
18. **Engine Horsepower (bhp):** The manufacturer's rated advertised brake (or gross) horsepower. Do not report "net", "peak" or "PTO" horsepower. If not available, estimate engine horsepower by multiplying the PTO horsepower by 1.20.
19. **PTO Horsepower:** The advertised PTO horsepower if the equipment is equipped with a power take-off unit (e.g. a tractor).
20. **EPA Engine Family Name: *Only for Tier 1 or 2 -certified diesel engines.*** Identify the engine family name assigned by the EPA. If available, attach the applicable CARB Executive Order for this engine, which should be available through your engine vendor or on-line at: www.arb.ca.gov/msprog/offroad/cert/cert.php.
21. **Months in Operation:** Select whether the in-use engine operates throughout the year or on specific months.
22. **The planned location on where equipment/engine will be scrapped and properly disposed:** Identify where the equipment/engine is planned for final destruction and disposal. Knocking a hole in the block only disables the engine and does not render the engine and equipment as being destroyed. Destruction and final disposal is at a mutually approved metal scrap yard location in California.
23. **Ownership and Operations Verification:** Provide two documents verifying ownership and one document verifying operation status for the existing equipment/engine. Ownership documents may include bill of sale, insurance records, bank appraisals, maintenance or service records, general ledgers, fuel records, or other documents. Operations documents may include maintenance or service records, usage records, routine inspections, hour meter reading logs, historical fuel usage logs, or other documents. Please refer to CPS 372-Specifications for more information.
24. **Additional Information:** Include any information pertinent to this equipment/engine, including and not limited to: evaluating other alternatives, whether incentive funds from other public or private programs are being sought in addition to this application, and/or attach applicable permits or documentation from a local air district.



PROPOSED NEW EQUIPMENT AND ENGINE/MOTOR WORKSHEET

California Air Quality – CPS 372 Combustion System Improvement
USDA Natural Resources Conservation Service

The applicant is to complete a separate worksheet for each new equipment/engine/motor
See Instructions on the back before answering questions below

Applicant Name:

1. Report the total acres this equipment/engine/motor will serve:

2. Identify the county or counties this equipment/engine/motor will operate and the percent use for each county listed:

3. Fuel Type

- Diesel
 B20 diesel
 B100 biodiesel
 Electric
 Other:

4. Emissions Tier-
Level:

- Tier 3
 Tier 4 Interim
 Tier 4 Final
 Electric:

5. Describe the new equipment (check one):

- Wheeled Tractor
 Rubber-Tired Loader
 Tracked Tractor
 Rough-Terrain Forklift
 Bulldozer
 Stationary Diesel-Powered Irrigation
 Portable Diesel-Powered Irrigation
 Electric-Powered Irrigation
 Other:

6. Equipment Manufacturer:

12. Engine/Motor Manufacturer:

7. Equipment Model:

13. Engine/Motor Model:

8. Equipment Model Year:

14. Engine/Motor Serial No.:

9. Equipment VIN:

15. Engine/Motor Model Year:

10. Annual Hours of Operation:

16. Engine (bhp) or Motor Horsepower:

11. Annual Fuel Usage (gal/year):

17. PTO Horsepower:
(if applicable)

18. EPA Engine Family Name:
(Attach the applicable ARB Executive Order)

19. Months in Operation:

- January
 February
 March
 April
 May
 June
 July
 August
 September
 October
 November
 December

Operates throughout the year

20. Cost Estimate of the New Equipment/Engine/Motor:

21. Describe the fuel source (i.e. location of fuel storage and dispensing system):

Instructions
PROPOSED NEW EQUIPMENT AND ENGINE/MOTOR WORKSHEET

1. **Report the total acres this equipment/engine/motor will serve:** The total acres the proposed off-road mobile agricultural equipment will operate on or the total acres to be irrigated by the well powered by the proposed diesel engine or electric motor.
2. **Identify the county or counties where this equipment/engine/motor will operate and the percent use for each county:** Report 100% if the engine and equipment will operate only in a single county. For multiple counties, estimate percent annual usage for each county by dividing the hours of use in each county by the total annual hours and multiplying by 100.
3. **Fuel Type:** All fuels must be suitable for use in a compression-ignition engine and meet California Air Resources Board (CARB) standards. "Diesel" is represented as petroleum-based "CARB diesel" and may be blended with up to 5% biodiesel (B5). "B20 diesel" is petroleum-based CARB diesel blend of up to 20% biodiesel. "B100" is non petroleum-based biodiesel. More information on California diesel fuels may be found at: <http://www.arb.ca.gov/fuels/diesel/diesel.htm>. Select "Electric" for a new irrigation motor.
4. **Emissions Tier Level:** Select the appropriate Tier-level emissions certification of the new diesel engine. Select "Electric" for a new irrigation motor.
5. **Describe the new equipment:** Check the box that best describes the new equipment. If "other", please describe (e.g. forage harvesters, combines, sprayers, shakers, etc.). *A new engine powers equipment that will serve the same function and perform the same work to the equipment that's being replaced.* Replacements are intended to reduce emissions of air pollution and not for any production related purpose.
6. **Equipment Manufacturer:** The equipment make. For example, Case IH, John Deere, Massey Ferguson, Ford, etc.
7. **Equipment Model:** The manufacturer's equipment designation. For example, 1600, 3300, 294S, etc.
8. **Equipment Model Year:** The year in which the equipment was manufactured.
9. **Equipment VIN:** The equipment Vehicle or Product Identification Number (not the engine serial number).
10. **Annual Hours of Operation:** Report the engine's actual total annual hours of operation on the total acres reported. Exaggerating hours may affect the project screening or ranking, or deem the project ineligible.
11. **Annual Fuel Usage (gal/year):** The amount of fuel use yearly in gallons. Annual fuel consumption may be used for estimating the baseline annual hours of operation.
12. **Engine/Motor Manufacturer:** The make of the diesel engine or electric motor. Diesel engine examples include: Cummins, John Deere, Fiat, Caterpillar, etc.
13. **Engine/Motor Model:** The model number of the in-use engine. For example, 6BTA5.9C.
14. **Engine/Motor Serial No.:** The engine serial number listed on the engine block or engine ID label.
15. **Engine/Motor Model Year:** The year the engine was manufactured.
16. **Engine (bhp) or Motor Horsepower:** For diesel engines, the manufacturer's rated advertised brake (or gross) horsepower. **Do not** report "net", "peak", "drawbar" or "PTO" horsepower, and **do not** estimate new engine horsepower by multiplying PTO horsepower by 1.20. For electric motors, report the rated motor horsepower.
17. **PTO Horsepower:** The advertised PTO horsepower if the equipment is equipped with a power take-off unit (e.g. a tractor).
18. **EPA Engine Family Name:** Identify the engine family name assigned by the EPA and attach the applicable CARB Executive Order for this diesel engine, which should be available through your engine vendor or on-line at: www.arb.ca.gov/msprog/offroad/cert/cert.php.
19. **Months in Operation:** Select whether the equipment/engine/motor will operate throughout the year or by the month.
20. **Cost Estimate of the New Equipment/Engine/Motor:** Please attach an estimate that clearly itemizes the costs.
21. **Describe the fuel source:** Describe how the fuel or electricity will be supplied to the new engine. If the diesel engine will be fueled by biofuel or biofuel blends, please identify the vendor supplying the fuel



ENGINE/EQUIPMENT DESTRUCTION CERTIFICATION WORKSHEET
California Air Quality – CPS 372 Combustion System Improvement
USDA Natural Resources Conservation Service

This worksheet serves to document that the engine/equipment identified below has been disabled by placing a hole in the block, permanently destroyed by shearing, crushing, or shredding into scrap metal, and properly disposed of as scrap metal at a California facility. No engine, drive-train components, hydraulics, and other essential engine or equipment components were or will be parted-out, used or sold as parts, or used to build or rebuild other engines or equipment. The completed certification worksheet shall be signed and submitted to the NRCS Field Office after destruction and final disposal.

Participant Name:

EQIP Contract Number:

Equipment Manufacturer and Model:

Engine Manufacturer and Model:

Equipment Type:

Engine Model Year:

Equipment VIN:

Engine Serial No.

Equipment Model Year:

Diesel Engine Spark-Ignition Engine

Date engine/equipment was disabled:

Engine/Equipment Owner's Name (Print):

Owner's Signature:

Date:

The engine/equipment identified above were delivered for destruction and disposal at:

Destruction Facility Name:

Address:

City:

State:

Zip Code:

Date engine/equipment was destroyed and scrapped:

The engine/equipment has been destroyed and scrapped.

Destruction Facility Contact Name (Print):

Phone No:

Contact Signature:

Date:

Attach date stamped photographs of the engine/equipment pre- and post-demolition that includes clearly identifiable engine serial number and vehicle identification number.

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Engine Emissions Calculations Worksheet
 California Air Quality – CPS 372 Combustion System Improvement
 USDA Natural Resources Conservation Service

Producer Name: _____

Date: _____

In-Use Engine Emissions Calculations

In-Use Engine: Manufacturer: _____
 Model Year Engine: _____ Fuel Type: _____
 Equipment Type: _____
 Serial Number: _____

	Baseline Emissions	NOx	ROG	PM10	
Rated Brake Horsepower:	_____	_____	_____	_____	bhp
Annual Hours of Operation:	x _____	_____	_____	_____	Hours/Year
Emission Factors:	x _____	_____	_____	_____	g/bhp-hr
Load Factor:	x _____	_____	_____	_____	
Conversion to Tons:	÷ 907,200	907,200	907,200	907,200	Grams/Ton
Annual Emissions (EE) =	_____	_____	_____	_____	Tons/Year

New Engine Emissions Calculations (Report as zero emissions if electric)

New Engine: Manufacturer: _____
 Model Year Engine: _____ Fuel Type: _____
 Equipment Type: _____
 Serial Number (if available): _____

	New Engine Emissions	NOx	ROG	PM10	
Rated Brake Horsepower:	_____	_____	_____	_____	bhp
Annual Hours of Operation:	x _____	_____	_____	_____	Hours/Year
Emission Factors:	x _____	_____	_____	_____	g/bhp-hr
Load Factor:	x _____	_____	_____	_____	
Conversion to Tons:	÷ 907,200	907,200	907,200	907,200	Grams/Ton
Annual Emissions (NE) =	_____	_____	_____	_____	Tons/Year

Calculation Results

	NOx	ROG	PM10	
Annual Emission Reductions: (EE) – (NE) = _____	_____	_____	_____	Tons/Year
Percent Emission Reductions: [(EE – NE) / (EE)] x 100 = _____	_____	_____	_____	%

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**CALIFORNIA MOBILE ENGINE AND EQUIPMENT
ANNUAL REPORTING WORKSHEET
California Air Quality – 372 Combustion System Improvement**

Reporting Year:	Date:	Contract No:
Participant Name:		
Contact Name:		
Contact Phone No:	Email Address:	
Engine/Equipment Address:		
Equipment/Vehicle Make:	Equipment/Vehicle Model:	
Equipment/Vehicle Model Year:	Vehicle ID Number:	
Engine Make:	Engine Model:	
Engine Model Year:	Engine Serial No:	
Is the equipment in service per the original contract? <input type="checkbox"/> Yes <input type="checkbox"/> No – Please explain:		
Record the total hours from the non-resettable hour meter:		Hours
Percent use within the San Joaquin Valley over the reporting year: <small>(San Joaquin Valley counties are: San Joaquin, Stanislaus, Merced, Madera, Fresno, Tulare, Kings, and the valley portion of Kern)</small>		Percent
Percent use in other counties: <small>(Report each county name and percent use)</small>		
Identify any maintenance performed on the engine/equipment:		
Identify any conditions that significantly affected the annual usage:		
Please complete and return this reporting worksheet to:	USDA Natural Resources Conservation Service Fresno Area Office – Air Quality 1907 N Gateway Blvd, Suite 101 Fresno, CA 95727	Phone: 559-252-2191 Fax: 559-252-5483

