STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
GARY C. RIKARD, EXECUTIVE DIRECTOR

September 11, 2019

Wilmington Trust, M.A.
1100 North Market Street
Wilmington, DE 19890

To Whom It May Concern:

Attached is the Beneficiary Mitigation Plan (BMP) from the State of Mississippi in accordance with the Environmental Mitigation Trust Agreement for State Beneficiaries. If you have any questions or need further information, please contact Elliott Bickerstaff or Charles Rainey of my staff at 601-961-5171.

Sincerely,

Chad LaFontaine
Air Division Chief,
Mississippi Department of Environmental Quality

OFFICE OF POLLUTION CONTROL
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AN EQUAL OPPORTUNITY EMPLOYER

State of Mississippi
Volkswagen Beneficiary Mitigation Plan

State of Mississippi
Department of Environmental Quality

6/5/2019

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Abbreviations, Acronyms, and Symbols

DERA	Diesel Emission Reduction Act
DEQ	Mississippi Department of Environmental Quality
EMA	eligible mitigation action
EPA	United States Environmental Protection Agency
EVSE	Electric Vehicle Supply Equipment
MDOT	Mississippi Department of Transportation
NAAQS	National Ambient Air Quality Standards
NO_x	nitrogen oxides
O_3	ozone
$PM_{2.5,\ 10}$	particulate matter with an aerodynamic diameter of 2.5 or 10 micrometers or less
VW	Volkswagen
ZEV	zero-emission vehicle
BMP	Beneficiary Mitigation Plan

1.0 Introduction

In January 2016, the United States (US) sued Volkswagen (VW) and associated companies, alleging that VW installed defeat devices in certain model year 2009–2016 vehicles. The United States also alleged that the defeat devices were activated during emissions testing to make the vehicles appear compliant, when in fact the vehicles emitted 9 to 40 times the allowable amount of nitrogen oxides (NO_x) during on-road operation.

After a significant amount of investigation and negotiation, VW agreed to settle these allegations. The court entered the First Partial Consent Decree on October 25, 2016, and the Second Partial Consent Decree, which implicated other brands owned by VW, on May 17, 2017. This multidistrict litigation is in the United States District Court for the Northern District of California.

Pursuant to the First and Second Partial Consent Decrees (referred to collectively as the "Consent Decree"), VW entered into an Environmental Mitigation Trust Agreement for State Beneficiaries (i.e., for the 50 states, Puerto Rico, and the District of Columbia) to settle violations of the federal Clean Air Act and the California Health and Safety Code for the vehicles in the US that were equipped with defeat devices. The Trust Agreement is being managed by Wilmington Trust, N.A. (the trustee). The overall settlement consists of three major parts:

- Buyback, Lease Termination, Vehicle Modification, and Emissions Compliant Recall Program
- National Zero Emission Vehicle (ZEV) Investment Plan
- Environmental Mitigation Trust

Under the Environmental Mitigation Trust, VW is required to establish a $2.9 billion trust to fulfill VW's environmental mitigation obligations under the Consent Decree, as well as for the cost and expenses of administering the trust to fund individual eligible mitigation actions (EMAs). A separate Indian Tribe Mitigation Trust was established to serve the Indian tribe beneficiaries.

The State of Mississippi is currently allocated $9,874,413.91 from the Environmental Mitigation Trust to fund EMAs. While Mississippi can request EMA funds up to the total amount allocated to it, it may only request payout of no more than one-third of its allocation during the first year or two-thirds of its allocation during the first two years. Appendix D-2 of the Trust Agreement identifies EMAs and a list of administrative expenditures that are eligible for funding under the trust. A link to the trust agreement, including appendices, is available at https://www.vwenvironmentalmitigationtrust.com.

The governor of Mississippi identified the Department of Environmental Quality (DEQ) as the lead agency for the State of Mississippi. Pursuant to the trust agreement, each

beneficiary must submit, and make publicly available, a beneficiary mitigation plan (BMP) describing how the beneficiary intends to use the trust funds.
This BMP includes the following elements:

- Overview of air quality and emissions in Mississippi
- Mississippi's overall goal for use of the funds
- A general description of the implementation plan
- Categories of EMAs Mississippi anticipates will be appropriate to achieve the goals of the state, as well as a preliminary assessment of the percentages of funds anticipated to be used for each type of EMA
- General description of the expected ranges of emission benefits that would be realized by implementing the EMAs identified in this plan
- Process by which Mississippi will seek and consider public input on this plan

This plan is not intended to be binding and may be adjusted based on new information and public input. In April 2018, DEQ held three public meetings throughout the state to inform the public and receive input for the plan development.

2.0 Air Quality in Mississippi

Nitrogen oxides are a precursor to the formation of ground level ozone and $PM_{2.5}$. Mississippi is currently meeting all ambient air quality standards for all pollutants including ozone and $PM_{2.5}$. Figures 1 and 2 show the current ozone and $PM_{2.5}$ design values for the ambient air monitors in the state.

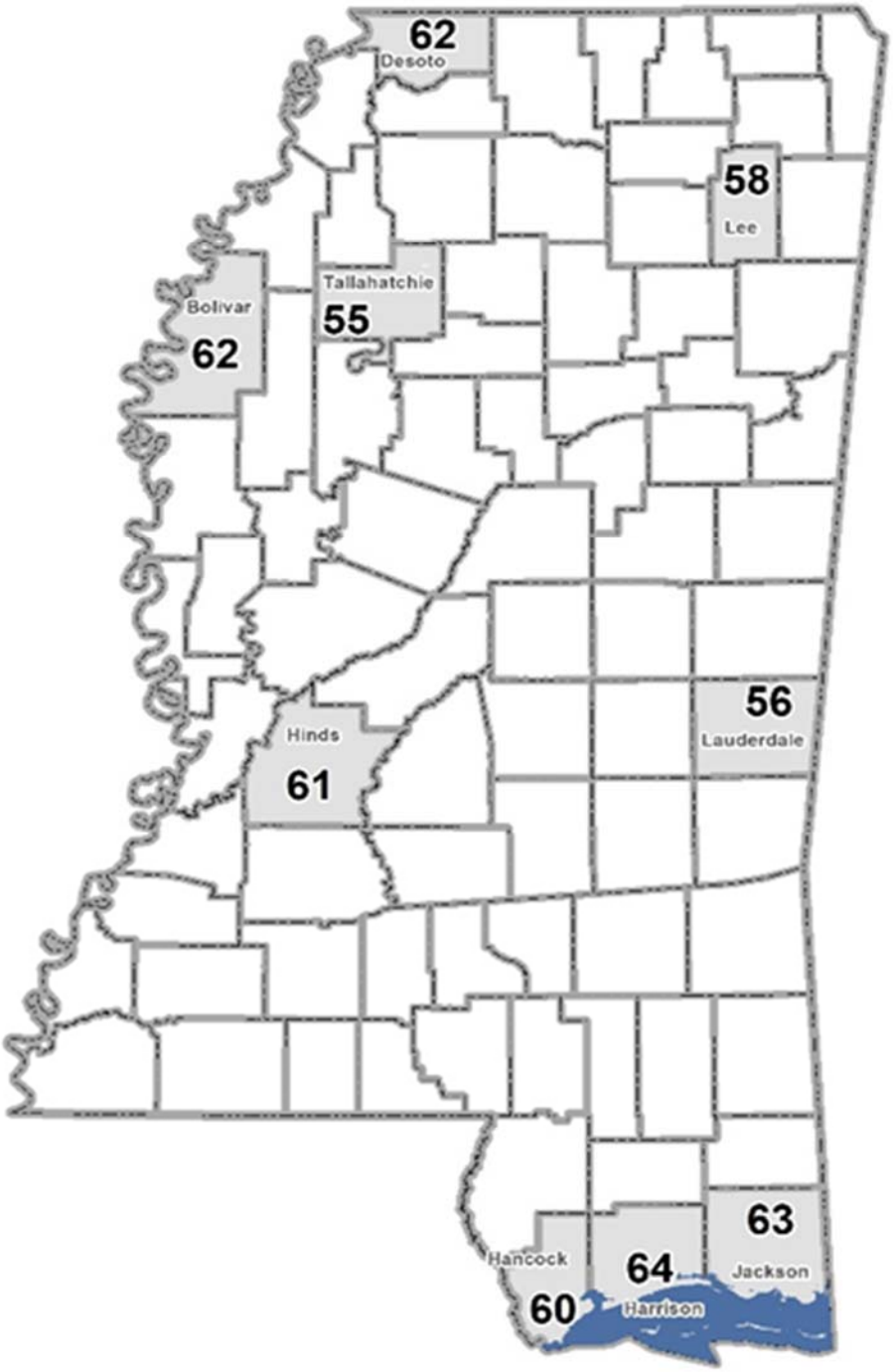

Figure 1. Ozone Levels for 2015-2017.
(Units are in parts per billion (ppb). The NAAQS is 70 ppb.)

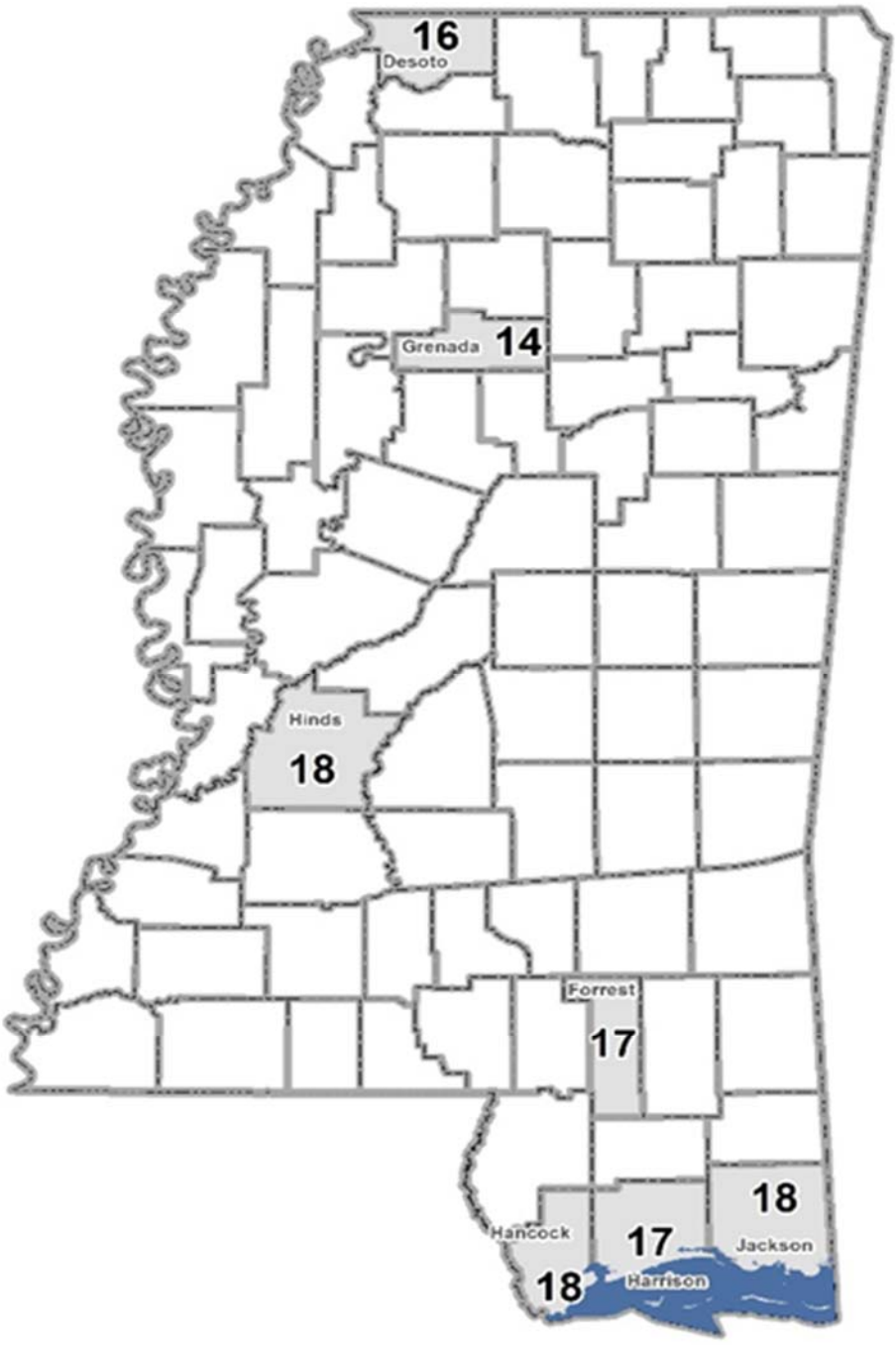

Figure 2. PM 2.5 Levels for 2015-2017.
(Units are in micrograms per cubic meter (µg/m^3). The NAAQS is 35 µg/m^3.)

Figure 3 breaks down the mobile emission sources into categories by eligibility for funding under the trust. On-road heavy-duty diesel vehicles are the largest source of eligible vehicle emissions in Mississippi, at 29% of total mobile source emissions, followed by non-road diesel equipment—which is equipment not designed to be driven on a roadway (e.g., equipment used in construction, mining, logging, industrial, commercial, and agricultural sectors)—at 10%, and locomotive emissions at 6%. Fifty-five percent of the mobile source emissions are from vehicles such as light duty trucks and cars and non-road vehicles that are not eligible for funding.

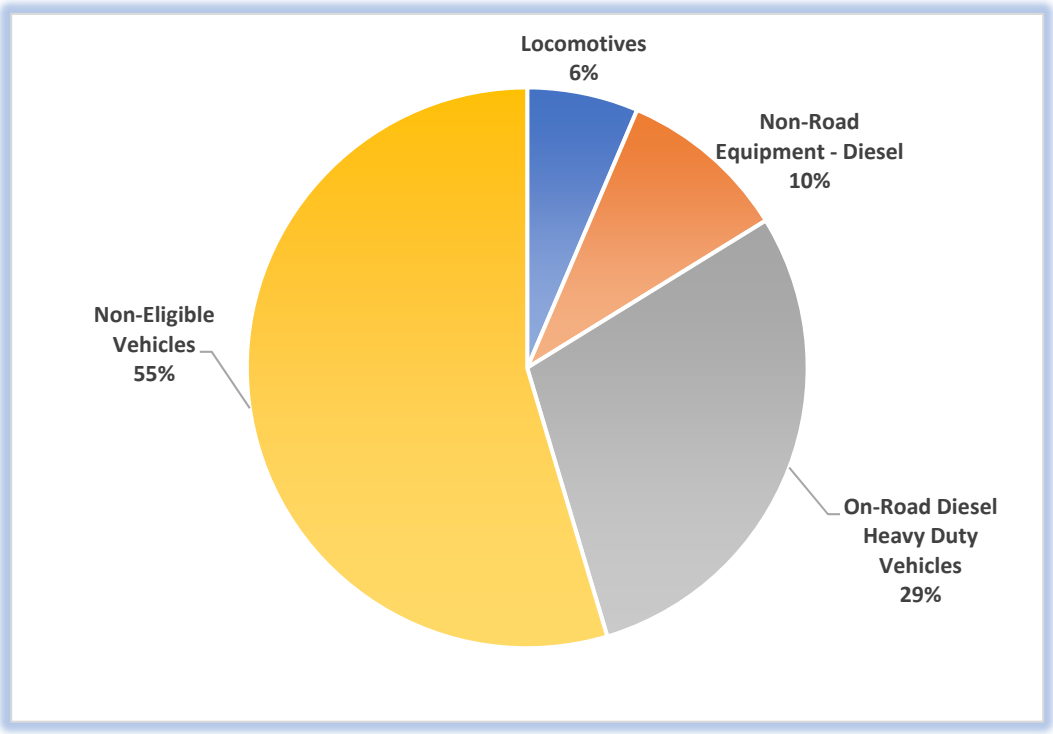

Figure 3. Mississippi NO_x Emission Sources for 2014.
(Source: 2014 National Emissions Inventory)

Figure 4 provides on-road NOx emissions in tons per year by county for 2014. The top 10 polluting counties make up about 41% of the on-road NOx emissions. The data demonstrates that there is not an overwhelmingly disproportionate amount of emissions being emitted in any particular county in the state; therefore, NO_x emission reductions from eligible projects located anywhere in the state contribute to an overall improvement to air quality.

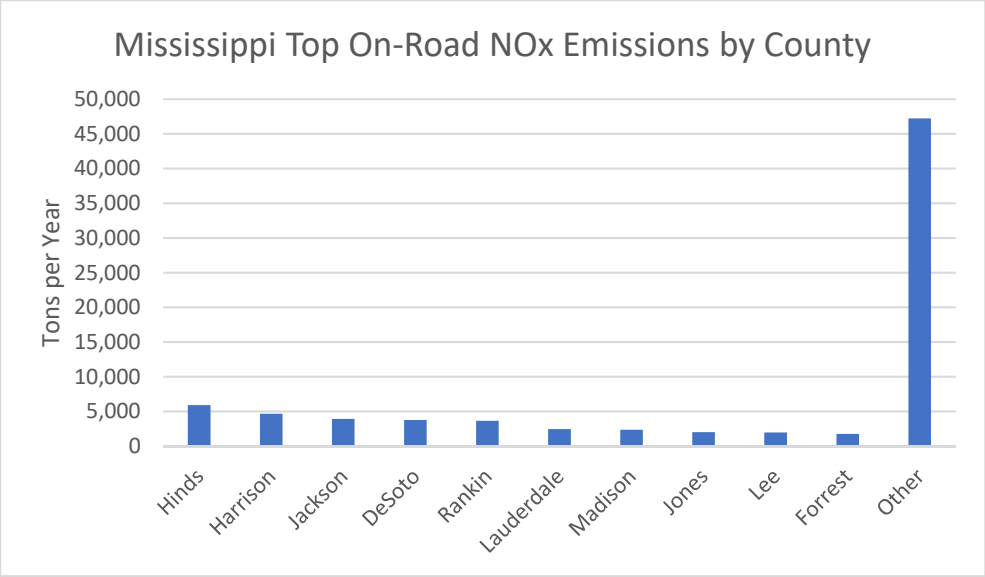

Figure 4. Top Mississippi Counties for On-road Diesel NO_x Emissions in 2014.
(Source: 2014 National Emissions Inventory)

3.0 Goals and Priorities

Mississippi's strategy for implementing the trust is to select projects that improve and protect ambient air quality by achieving the following high-level goals:

- Achieve significant and sustained reductions in diesel emission exposures throughout the state.
- Maximize the amount of diesel emissions reduced each year per dollar invested.
- Support projects that invest in the replacement of older diesel emission sources with cleaner alternatives.
- Support projects that invest in new technologies including ZEV sources.

4.0 Implementation Plan

Mississippi will utilize a project selection process based on a project application packet. The application packet will include application forms, required information, emission reduction calculation methods, and details regarding the submittal of the application. Mississippi intends to consider all projects that are eligible under the trust for funding. Appendix A lists and defines the projects that are eligible under the trust. Mississippi will evaluate projects against the goals and priorities of the Mitigation Plan.

Appendix A provides a list of the maximum funding rates that the trust allows for various projects. In order to maximize the benefit of the VW Mitigation Trust, Mississippi will give additional consideration to those projects offering matching funds above the minimum requirements allowed by the trust.

Table 1 lists the EMAs allowed under the trust, the estimated percentage of project dollars Mississippi anticipates funding for each EMA category, and the resulting estimated emission reductions. However, Mississippi intends to consider all projects that are allowable under the trust and the listed percentages are not targets. The estimated percentages are subject to change based on the project submittals and their merits. The EMAs that Mississippi is proposing to fund are explained further below. Mississippi estimates annual emissions reductions of 30 tons NO_x will be the result from implementing the projects in this plan. Actual emission reductions will depend on the specific projects funded. Mississippi anticipates using up to 15% of the funds available for allowable administrative expenditures.

Table 1. Eligible Mitigation Actions, Funding Rates, and Estimated NO_x Reductions.

Percent of funds[a]	Eligible Mitigation Action (EMA)	Description (Section #)	EMA Category	Estimated NO_x Emission Reductions
15%	Large trucks	4.1	1	1.44
15%	School bus, shuttle bus, or transit bus		2	1.35
15%	Medium trucks		6	2.4375
5%	Freight switchers (locomotives)	4.2	3	3.175
5%	Ferries/tugs	4.3	4	4.15
5%	Ocean going vessel shore power	4.4	5	10.0
5%	Airport ground support equipment	4.5	7	2.6
5%	Forklifts and port cargo handling equipment		8	3.5
10%	Light-duty zero-emission vehicle supply equipment	4.6	9	
5%	Diesel Emission Reduction Act (DERA) option	4.7	10	1.175
15%	Allowable administrative costs	NA	NA	

[a] General estimated rates based on source population in the state. Specific funding will be determined as project proposals are submitted.

[b] Expected emissions reduction based on the estimated percent of funds.

[c] Estimated with EPA's Diesel Emissions Quantifier (DEQ) tool: https://cfpub.epa.gov/quantifier/

[d] Expected annual emissions reduction; estimated with EPA's Shore Power Calculator: https://www.epa.gov/ports-initiative/shore-power-technology-assessment-us-ports#assessment

4.1 Trucks and Buses

Eligible vehicles in EMA Category 1 include large (Class 8) freight trucks and port drayage trucks. Eligible Category 2 vehicles include Class 4-7 school buses, shuttle buses, and transit buses. Eligible Category 6 vehicles entail local medium freight (Class 4-7) trucks—refuse haulers, for example. These vehicles can either be replaced or repowered with any new diesel, alternate fuel, or all-electric vehicle or engine. For projects that move to an all-electric vehicle or engine, the cost of the charging infrastructure associated with the new vehicle or engine is also eligible. These types of vehicles are common and widespread throughout the state. They are also in the on-road heavy duty vehicle category shown in figure 3 which makes up the largest source of emissions of the eligible projects. Therefore, it is expected that the largest percentage of funding will go towards these categories.

Some of the projects eligible under these categories may also be eligible for funding under the Diesel Emission Reduction Act (DERA) program at lower funding levels that are established by DERA (see Section 4.4).

Mississippi analyzed a sample of eligible projects that included replacing medium trucks, large freight trucks, and port drayage trucks with diesel replacements, as well as replacing school buses and transit buses with diesel, propane, compressed natural gas, and electric versions. For each of the three categories, the estimated total annual emission reductions from this group are: 1.44 tons of NOx in Category 1, 1.35 tons of NOx in Category 2, and 2.44 tons of NOx in Category 6.

4.2 Freight Switchers

Eligible vehicles under Category 3 are switcher locomotives, used in railyards to assemble and disassemble long-distance line haul locomotives. The freight switcher locomotives can be replaced or repowered with any new diesel, alternate fuel, or all-electric vehicle or engine (including generator sets). Locomotives contributed 6% of NO_x emissions in Mississippi in 2014. Mississippi analyzed the potential benefit of replacing a freight switcher with a new diesel switcher locomotive. The estimated annual emission reduction is approximately 3.18 tons of NO_x.

4.3 Ferries and Tugs

Eligible vehicles under Category 4 include ferries and tugs with unregulated, Class 1, or Class 2 engines. Mississippi is bordered to the west by the Mississippi River and to the south by the Gulf of Mexico; therefore, ferries and tugs are used for transportation (e.g. cargo transport, leisure travel along the coast) in the state. These marine vessels can be repowered with new diesel, alternative fuel, or all-electric engines. Mississippi analyzed a sample of ferries and tugs repowered by diesel and all-electric engines. The estimated annual emission reduction is approximately 4.15 tons of NO_x.

4.4 Ocean Going Vessel Shore Power

Shore power, typically supplied from an electric grid, is a power source used by marine vessels to remain operational (e.g. for refrigeration purposes) without relying on auxiliary engines, thereby reducing its emissions at idle. Settlement funds may be used to cover certain costs associated with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components. The estimated annual emission reduction from a shore power project is approximately 10.0 tons of NOx.

4.5 Forklifts and Port Cargo Handling Equipment

Eligible equipment under these categories include freight switcher locomotives used in railyards, airport ground support equipment, certain forklifts, and port cargo handling equipment. The freight switcher locomotives can be replaced or repowered with any new diesel, alternate fuel, or all-electric vehicle or engine. Airport ground support equipment, forklifts, and port cargo handling equipment can only be replaced or repowered with any electric equipment or engine. For projects that move to an all-electric vehicle or engine,

the cost of the charging infrastructure associated with the new vehicle or engine is also eligible.

Some of the projects eligible under these EMAs may also be eligible for funding under the DERA program at lower funding levels that are established by DERA (see Section 4.4).

Mississippi analyzed a sample of eligible projects that included replacing a freight switcher with diesel and airport ground support equipment and forklifts with electric equipment. From this group, the estimated annual emission reductions are approximately 2.60 tons of NO_x in Category 7 and 3.50 in Category 8.

4.6 Light-Duty Zero-Emission Vehicle Supply Equipment

Category 9 allows funds to be used for acquiring, installing, operating, and maintaining supply equipment for light-duty zero emission vehicles (ZEVs). Examples of allowable ZEV supply equipment installations include Level 1, Level 2, or DC fast charging equipment located in a public place, workplace, or multi-unit dwelling. Other allowable projects include light-duty hydrogen fuel cell vehicle supply equipment and hydrogen dispensing equipment that is capable of dispensing hydrogen at a pressure of 70 megapascals.

The light-duty ZEV supply equipment projects identified in this section are not linked to the electric vehicle or equipment replacement or repower projects listed in paragraphs 1–8 of Appendix A. The ZEV supply equipment projects also are restricted to light-duty vehicle recharging/refueling locations and do not include recharging/refueling locations for medium or heavy-duty vehicles or equipment.

4.7 Diesel Emission Reduction Act (DERA) Option

Eligible projects under this EMA include project types currently allowed under the US Environmental Protection Agency's (EPA's) DERA programs, such as various types of retrofits, repowers, replacements, and conversions. DERA-eligible projects are subject to the funding limits established by EPA. DEQ has an existing state Diesel Emission Reduction Program, which has successfully retrofitted school buses and county and agricultural equipment and replaced school buses since 2005.

Mississippi will use trust funds as Mississippi's nonfederal voluntary match for DERA grants. Projects not identified in existing grant work plan may be funded through coordination with and authority provided by the EPA.

This EMA has some overlap with the other EMAs in vehicle eligibility. However, DERA requires different applicant funding match requirements. Some projects included in the EMAs discussed above are also eligible for funding under the DERA option, except at lower funding levels than those established by the Consent Decree.

Some of the projects allowed under the DERA option that are not eligible under other EMAs include the following:

- Unregulated Tier 1 or Tier 2 locomotives, including line-haul locomotives

- Locomotive idle reduction technologies
- Non-road engines, equipment, or vehicles used for construction, agriculture, or mining
- Non-road engines, equipment, or vehicles used in energy production, including stationary generators or pumps
- Long-haul Class 8 trucks aerodynamic technologies and low rolling resistance tires

Mississippi analyzed a sample of eligible projects that included replacing school buses, short-haul trucks, transit buses, and construction equipment with new diesel vehicles or equipment. From this group, the estimated annual emissions reduction is approximately 1.18 tons of NO_x.

5.0 Public Input to the Mississippi Beneficiary Mitigation Plan

The VW Environmental Mitigation Trust requires that beneficiaries explain the process by which the beneficiaries will seek and consider public input regarding its BMP. Mississippi has sought public input throughout the development of this BMP through the following actions:

- Established a Mississippi DEQ specific VW Settlement website (*https://www.mdeq.ms.gov/air/vw-mitigation-trust/*) to provide information about the settlement, and provide points of contact for questions.
- Requested comments on the Mitigation Trust at DEQ's VW website through the following link (*https://www.mdeq.ms.gov/wp-content/uploads/2017/06/VW-Comment-Form-fillable-2.pdf*)
- Entertained meetings and phone conversations with interested parties concerning the mitigation trust, potential project eligibility, and overall program development.
- Conducted three public stakeholder meetings at locations in north, central and south Mississippi attended by concerned citizens, industry, environmental groups, and government entities in which DEQ presented information about the settlement and heard public comments and suggestions for the BMP.
- Established an e-mail list of trade organizations, governmental entities, industries, environmental groups, and any other interested parties to send program information and updates. The same list will be added to and used for project solicitations.

In addition to the public involvement opportunities and actions listed above, DEQ has conducted a 30-day public comment period on the final draft BMP, and three regional public hearings in Batesville, MS (north), Jackson, MS (central) and Biloxi, MS (South) prior to submittal of the BMP to the Trustee.

Revisions to the estimated percent of funds per category in Table 1 and for clarity were made to the BMP based on public comments. Any comments directly related to the BMP are posted at *https://www.mdeq.ms.gov/air/vw-mitigation-trust* .

Appendix A – Eligible Mitigation Actions

Eligible Mitigation Actions and Expenditures from Appendix D-2 of the Trust Agreement

1. Class 8 Local Freight Trucks and Port Drayage Trucks (Eligible Large Trucks)
    a. Eligible Large Trucks include 1992-2009 engine model year Class 8 Local Freight or Drayage. For Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year trucks at the time of the proposed Eligible Mitigation Action, Eligible Large Trucks shall also include 2010-2012 engine model year Class 8 Local Freight or Drayage.

    b. Eligible Large Trucks must be Scrapped.

    c. Eligible Large Trucks may be Repowered with any new diesel or Alternate Fueled engine or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Large Trucks Mitigation Action occurs or one engine model year prior.

    d. For Non-Government Owned Eligible Class 8 Local Freight Trucks, Beneficiaries may only draw funds from the Trust in the amount of:
        1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
        2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
        3. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
        4. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

    e. For Non-Government Owned Eligible Drayage Trucks, Beneficiaries may only draw funds from the Trust in the amount of:
        1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
        2. Up to 50% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.

3. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.

4. Up to 75% of the cost of a new all-electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

f. For Government Owned Eligible Class 8 Large Trucks, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.

2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.

3. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.

4. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

2. Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)

a. Eligible Buses include 2009 engine model year or older class 4-8 school buses, shuttle buses, or transit buses. For Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year buses at the time of the proposed Eligible Mitigation Action, Eligible Buses shall also include 2010- 2012 engine model year class 4-8 school buses, shuttle buses, or transit buses.

b. Eligible Buses must be Scrapped.

c. Eligible Buses may be Repowered with any new diesel or Alternate Fueled or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Bus Mitigation Action occurs or one engine model year prior.

d. For Non-Government Owned Buses, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
3. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

e. For Government Owned Eligible Buses, and Privately Owned School Buses Under Contract with a Public School District, Beneficiaries may draw funds from the Trust in the amount of:

1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
3. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
4. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

3. Freight Switchers

a. Eligible Freight Switchers include pre-Tier 4 switcher locomotives that operate 1000 or more hours per year.

b. Eligible Freight Switchers must be Scrapped.

c. Eligible Freight Switchers may be Repowered with any new diesel or Alternate Fueled or All-Electric engine(s) (including Generator Sets), or may be replaced with any new diesel or Alternate Fueled or All-Electric (including Generator Sets) Freight Switcher, that is certified to meet the applicable EPA emissions standards (or other more stringent equivalent State standard) as published in the CFR for the engine model year in which the Eligible Freight Switcher Mitigation Action occurs.

d. For Non-Government Owned Freight Switchers, Beneficiaries may draw funds from the Trust in the amount of:

    1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).

    2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.

    3. Up to 75% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).

    4. Up to 75% of the cost of a new All-Electric Freight Switcher, including charging infrastructure associated with the new All-Electric Freight Switcher.

e. For Government Owned Eligible Freight Switchers, Beneficiaries may draw funds from the Trust in the amount of:

    1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).

    2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.

    3. Up to 100% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).

    4. Up to 100% of the cost of a new All-Electric Freight Switcher, including charging infrastructure associated with the new All-Electric Freight Switcher.

4. Ferries/Tugs

a. Eligible Ferries and/or Tugs include unregulated, Tier 1, or Tier 2 marine engines.

b. Eligible Ferry and/or Tug engines that are replaced must be Scrapped.

c. Eligible Ferries and/or Tugs may be Repowered with any new Tier 3 or Tier 4 diesel or Alternate Fueled engines, or with All-Electric engines, or may be upgraded with an EPA Certified Remanufacture System or an EPA Verified Engine Upgrade.

d. For Non-Government Owned Eligible Ferries and/or Tugs, Beneficiaries may only draw funds from the Trust in the amount of:

    1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).

    2. Up to 75% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).

e. For Government Owned Eligible Ferries and/or Tugs, Beneficiaries may draw funds from the Trust in the amount of:

    1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).

    2. Up to 100% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).

5. Ocean Going Vessels (OGV) Shorepower

a. Eligible Marine Shorepower includes systems that enable a compatible vessel's main and auxiliary engines to remain off while the vessel is at berth. Components of such systems eligible for reimbursement are limited to cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution. Marine shore power systems must comply with international shore power design standards (ISO/IEC/IEEE 80005-1-2012 High Voltage Shore Connection Systems or the IEC/PAS 80005-3:2014 Low Voltage Shore Connection Systems) and should be supplied with power sourced from the local utility grid. Eligible Marine Shorepower includes equipment for vessels that operate within the Great Lakes.

b. For Non-Government Owned Marine Shorepower, Beneficiaries may only draw funds from the Trust in the amount of up to 25% for the costs associated with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components.

c. For Government Owned Marine Shorepower, Beneficiaries may draw funds from the Trust in the amount of up to 100% for the costs associated with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components.

6. Class 4-7 Local Freight Trucks (Medium Trucks)

   a. Eligible Medium Trucks include 1992-2009 engine model year class 4-7 Local Freight trucks, and for Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year trucks at the time of the proposed Eligible Mitigation Action, Eligible Trucks shall also include 2010- 2012 engine model year class 4-7 Local Freight trucks.

   b. Eligible Medium Trucks must be Scrapped.

   c. Eligible Medium Trucks may be Repowered with any new diesel or Alternate

      Fueled or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Medium Trucks Mitigation Action occurs or one engine model year prior.

   d. For Non-Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:

      1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.

      2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.

      3. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.

      4. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

   e. For Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:

      1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.

      2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.

      3. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.

4. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

7. Airport Ground Support Equipment

a. Eligible Airport Ground Support Equipment includes:

1. Tier 0, Tier 1, or Tier 2 diesel powered airport ground support equipment; and

2. Uncertified, or certified to 3 g/bhp-hr or higher emissions, spark ignition engine powered airport ground support equipment.

b. Eligible Airport Ground Support Equipment must be Scrapped.

a. Eligible Airport Ground Support Equipment may be Repowered with an All- Electric engine, or may be replaced with the same Airport Ground Support Equipment in an All-Electric form.

b. For Non-Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may only draw funds from the Trust in the amount of:

1. Up to 75% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.

2. Up to 75% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.

c. For Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may draw funds from the Trust in the amount of:

3. Up to 100% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.

4. Up to 100% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.

8. Forklifts and Port Cargo Handling Equipment

a. Eligible Forklifts includes forklifts with greater than 8000 pounds lift capacity.

b. Eligible Forklifts and Port Cargo Handling Equipment must be Scrapped.

c. Eligible Forklifts and Port Cargo Handling Equipment may be Repowered with an All-Electric engine, or may be replaced with the same equipment in an All-Electric form.

d. For Non-Government Owned Eligible Forklifts and Port Cargo Handling Equipment, Beneficiaries may draw funds from the Trust in the amount of:

    1. Up to 75% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.

    2. Up to 75% of the cost of a new All-Electric Forklift or Port Cargo Handling Equipment, including charging infrastructure associated with such new All-Electric Forklift or Port Cargo Handling Equipment.

e. For Government Owned Eligible Forklifts and Port Cargo Handling Equipment, Beneficiaries may draw funds from the Trust in the amount of:

    1. Up to 100% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.

    2. Up to 100% of the cost of a new All-Electric Forklift or Port Cargo Handling Equipment, including charging infrastructure associated with such new All-Electric Forklift or Port Cargo Handling Equipment.

9. Light Duty Zero Emission Vehicle Supply Equipment. Each Beneficiary may use up to fifteen percent (15%) of its allocation of Trust Funds on the costs necessary for, and directly connected to, the acquisition, installation, operation and maintenance of new light duty zero emission vehicle supply equipment for projects as specified below. Provided, however, that Trust Funds shall not be made available or used to purchase or rent real- estate, other capital costs (e.g., construction of buildings, parking facilities, etc.) or general maintenance (i.e., maintenance other than of the Supply Equipment).

    a. Light duty electric vehicle supply equipment includes Level 1, Level 2 or fast charging equipment (or analogous successor technologies) that is located in a public place, workplace, or multi-unit dwelling and is not consumer light duty electric vehicle supply equipment (i.e., not located at a private residential dwelling that is not a multi-unit dwelling).

b. Light duty hydrogen fuel cell vehicle supply equipment includes hydrogen dispensing equipment capable of dispensing hydrogen at a pressure of 70 megapascals (MPa) (or analogous successor technologies) that is located in a public place.

c. Subject to the 15% limitation above, each Beneficiary may draw funds from the Trust in the amount of:

    1. Up to 100% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that will be available to the public at a Government Owned Property.

    2. Up to 80% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that will be available to the public at a Non-Government Owned Property.

    3. Up to 60% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that is available at a workplace but not to the general public.

    4. Up to 60% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that is available at a multi-unit dwelling but not to the general public.

    5. Up to 33% of the cost to purchase, install and maintain eligible light duty hydrogen fuel cell vehicle supply equipment capable of dispensing at least 250 kg/day that will be available to the public.

    6. Up to 25% of the cost to purchase, install and maintain eligible light duty hydrogen fuel cell vehicle supply equipment capable of dispensing at least 100 kg/day that will be available to the public.

10. Diesel Emission Reduction Act (DERA) Option. Beneficiaries may use Trust Funds for their non-federal voluntary match, pursuant to Title VII, Subtitle G, Section 793 of the DERA Program in the Energy Policy Act of 2005 (codified at 42 U.S.C. § 16133), or
Section 792 (codified at 42 U.S.C. § 16132) in the case of Tribes, thereby allowing Beneficiaries to use such Trust Funds for actions not specifically enumerated in this Appendix D-2, but otherwise eligible under DERA pursuant to all DERA guidance documents available through the EPA. Trust Funds shall not be used to meet the non- federal mandatory cost share requirements, as defined in applicable DERA program guidance, of any DERA grant.

Eligible Mitigation Action Administrative Expenditures

For any Eligible Mitigation Action, Beneficiaries may use Trust Funds for actual administrative expenditures (described below) associated with implementing such

Eligible Mitigation Action, but not to exceed 15% of the total cost of such Eligible Mitigation Action. The 15% cap includes the aggregated amount of eligible administrative expenditures incurred by the Beneficiary and any third-party contractor(s).

1. Personnel including costs of employee salaries and wages, but not consultants.
2. Fringe Benefits including costs of employee fringe benefits such as health insurance, FICA, retirement, life insurance, and payroll taxes.
3. Travel including costs of Mitigation Action-related travel by program staff, but does not include consultant travel.
4. Supplies including tangible property purchased in support of the Mitigation Action that will be expensed on the Statement of Activities, such as educational publications, office supplies, etc. Identify general categories of supplies and their Mitigation Action costs.
5. Contractual including all contracted services and goods except for those charged under other categories such as supplies, construction, etc. Contracts for evaluation and consulting services and contracts with sub-recipient organizations are included.
6. Construction including costs associated with ordinary or normal rearrangement and alteration of facilities.
7. Other costs including insurance, professional services, occupancy and equipment leases, printing and publication, training, indirect costs, and accounting.

Definitions/Glossary of Terms

“Airport Ground Support Equipment” shall mean vehicles and equipment used at an airport to service aircraft between flights.

“All-Electric” shall mean powered exclusively by electricity provided by a battery, fuel cell, or the grid.

“Alternate Fueled” shall mean an engine, or a vehicle or piece of equipment that is powered by an engine, which uses a fuel different from or in addition to gasoline fuel or diesel fuel (e.g., CNG, propane, diesel-electric Hybrid).

“Certified Remanufacture System or Verified Engine Upgrade” shall mean engine upgrades certified or verified by EPA or CARB to achieve a reduction in emissions.

“Class 4-7 Local Freight Trucks (Medium Trucks)” shall mean trucks, including commercial trucks, used to deliver cargo and freight (e.g., courier services, delivery trucks, box trucks moving freight, waste haulers, dump trucks, concrete mixers) with a Gross Vehicle Weight Rating (GVWR) between 14,001 and 33,000 lbs.

"Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Buses)" means vehicles with a GVWR greater than 14,001 lbs used for transporting people.

"Class 8 Local Freight and Port Drayage Trucks" means trucks with a GVWR greater than 33,000 lbs used for port drayage and/or freight/cargo delivery, including waste haulers, dump trucks, and concrete *mixers*.

"Drayage Trucks" means trucks hauling cargo to and from ports and intermodal rail yards.

"Forklift" means non-road equipment used to lift and move materials short distances, and generally include tines to lift objects. Eligible types of forklifts include reach stackers, side loaders, and top loaders.

"Freight Switcher" means a locomotive that moves rail cars around a rail yard as compared to a linehaul engine that *move* freight long distances.

"Generator Set" means a switcher locomotive equipped with multiple engines that can turn off one or more engines to reduce *emissions* and save fuel depending on the load it is moving.

"Government" means a state or local government agency (including a school district, municipality, city, county, special *district*, transit district, joint powers authority, or port authority, owning fleets purchased with government funds), and a tribal government or native village.

"Gross Vehicle Weight Rating (GVWR)" means the maximum weight of the vehicle, as specified by the manufacturer. GVWR include the following total vehicle weight plus fluids, passengers, and cargo:

Class 1: < 6000 lbs
Class 2: 6001-10,000 lbs
Class 3: 10,001-14,000 lbs
Class 4: 14,001-16,000 lbs

Class 5: 16,001-19,500 lbs
Class 6: 19,501-26,000 lbs
Class 7: 26,001-33,000 lbs
Class 8: > 33,001 lbs

"Hybrid" means a vehicle that *combines* an internal combustion engine with a battery and electric motor.

"Infrastructure" means the equipment used to enable the use of electric powered vehicles (e.g., electric charging stations).

"Intermodal Rail Yard" shall mean a rail facility in which cargo is transferred from drayage truck to *train* or vice-versa.

"Port Cargo Handling Equipment" shall mean rubber-tired gantry cranes, straddle carriers, *shuttle* carriers, and terminal tractors, including yard hostlers and yard tractors that operate within ports.

“Plug-in Hybrid Electric Vehicle (PHEV)” shall mean a vehicle that is similar to a Hybrid but is *equipped* with a larger, more advanced battery that allows the vehicle to be plugged in and recharged in addition to refueling with gasoline. This larger battery allows the car to be driven on a combination of electric and gasoline fuels.

“Repower” shall mean to replace an existing engine with a newer, cleaner engine or power source that is certified by EPA and, if applicable, CARB, to meet a more stringent set of engine emission standards. Repower includes, but is not limited to, diesel engine replacement with an engine certified for use with diesel or a clean alternate fuel, diesel engine replacement with an electric power source (e.g., grid, battery), diesel engine replacement with a fuel cell, diesel engine replacement with an electric generator(s) (genset), diesel engine upgrades in Ferries/Tugs with an EPA Certified Remanufacture System, and/or diesel engine upgrades in Ferries/Tugs with an EPA Verified Engine Upgrade. All-Electric and fuel cell Repowers do not require EPA or CARB certification.

“School Bus” shall mean a Class 4-8 bus sold or introduced into interstate commerce for purposes *that* include carrying students to and from school or related events. May be Type A-D.

“Scrapped” shall mean to render inoperable and available for recycle, and, at a minimum, to specifically cut a 3-inch hole in the engine block for all engines. If any Eligible Vehicle will be replaced as part of an Eligible project, Scrapped shall also include the disabling of the chassis by cutting the vehicle’s frame rails completely in half.

“Tier 0, 1, 2, 3, 4” shall refer to corresponding EPA engine emission classifications for nonroad, locomotive, and marine engines.

“Tugs” *shall* mean dedicated vessels that push or pull other vessels in ports, harbors, and inland waterways (e.g., tugboats and towboats).

“Zero Emission Vehicle (ZEV)” shall mean a vehicle that produces no emissions from the on- board *source* of power (e.g., All-Electric or hydrogen fuel cell vehicles).