

**Wisconsin Beneficiary Mitigation Plan**  
for the  
**Volkswagen Environmental Mitigation  
Trust**



May 1, 2018

**State of Wisconsin  
Volkswagen Environmental Trust  
Beneficiary Mitigation Plan**

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## Wisconsin Beneficiary Mitigation Plan

### **Executive Summary**

Volkswagen Group of America and certain related entities (collectively Volkswagen or VW) admitted to violating the federal Clean Air Act (CAA) from 2009 through 2016 by selling nearly 590,000 2.0-liter and 3.0-liter diesel engine vehicles equipped with software designed to cheat on federal emission tests. This software activated the vehicle emission control devices only during laboratory testing. As a result, the vehicles met CAA emissions standards for nitrogen oxides (NO<sub>x</sub>) in the lab, but not on the road. Volkswagen entered various judicial consent decrees to partially settle its civil liability for the CAA violations. Under these decrees, Volkswagen must pay more than \$2.9 billion into an Environmental Mitigation Trust Fund (Trust) administered by Wilmington Trust, N.A. The State of Wisconsin received beneficiary designation on January 29, 2018 and will receive \$67.1 million over the next ten years to offset the excess NO<sub>x</sub> pollution emitted by affected VW vehicles in Wisconsin.

Governor Scott Walker designated the Department of Administration (DOA) as the lead agency to develop and implement a Beneficiary Mitigation Plan (BMP) that explains how Wisconsin plans to use its allocated Trust funds. The State Budget Bill, 2017 Wisconsin Act 59, authorizes not less than \$42 million of Wisconsin's allocation to be utilized beginning in the 2017-19 biennium to replace eligible state fleet vehicles and establish a competitive statewide transit capital assistance grant program to fund the replacement of eligible public transit vehicles. Wisconsin will seek public input for the use of the remaining allocation over subsequent years.

### **Introduction**

#### *Consent Decrees*

Volkswagen entered judicial settlements approved on October 25, 2016 (2.0-liter engines) and May 17, 2017 (3.0-liter engines) to partially resolve its civil liability for CAA violations. These settlements require Volkswagen to pay more than \$2.9 billion into the Trust fund. Wisconsin, as a certified Trust Beneficiary, will receive \$67.1 million (\$63,554,019 for 2.0-liter engines and \$3,523,438 for 3.0-liter engines) over a period of ten years to offset the excess NO<sub>x</sub> pollution emitted by affected Volkswagen vehicles in Wisconsin. Wilmington Trust, N.A., will administer the Trust.

After Volkswagen makes the initial Trust deposit, Wisconsin may request up to one-third of its allocation during the first year, and up to two-thirds of its allocation during the first two years. Consistent with these terms, 2017 Wisconsin Act 59, authorizes not less than \$42 million of Wisconsin's allocation beginning in the 2017-19 biennium. Wisconsin must expend (or obligate for approved expenditures) at least 80% of its allocation within ten years of the Trust Effective Date (TED), October 2, 2017.

### *Wisconsin's Beneficiary Mitigation Plan*

As a designated Trust Beneficiary, Wisconsin must provide its BMP to the Trustee at least 30 days prior to submitting its first funding request. The BMP must summarize how Wisconsin plans to use its funding allocation, addressing:

- Wisconsin's overall goal for the use of the funds;
- The Eligible Mitigation Action Categories Wisconsin anticipates are appropriate to achieve its stated goals and a preliminary assessment of the percentages of funds anticipated to be used for each type of Eligible Mitigation Action;
- A description of how Wisconsin will consider the potential beneficial impact of the selected Eligible Mitigation Actions on air quality in areas that bear a disproportionate share of the air pollution burden within its jurisdiction;
- A general description of the expected ranges of emission benefits Wisconsin estimates may be realized by the implementation of the Eligible Mitigation Actions identified in the BMP; and
- An explanation of the process by which the Beneficiary shall seek and consider public input on its BMP.

The remainder of this document explains Wisconsin's high-level vision for utilizing its Trust allocation, including the specific Eligible Mitigation Actions for which the funding is expected to be requested. This BMP is not binding on Wisconsin and the State may adjust its goals and specific spending plans if necessary. If plans are substantively changed, Wisconsin will provide the Trustee and the public with BMP updates.

### **Wisconsin's Goals for the Use of Funds Allocated Under the Trust**

The goal of each Eligible Mitigation Action in Wisconsin is to reduce NOx emissions in the state. With the use of Trust funds Wisconsin also aims to:

- Connect employees with employers;
- Fund projects that can be promptly implemented;
- Maximize the Trust's air quality benefits in Wisconsin, including reductions of NOx and PM2.5;
- Award funds through a transparent public process;
- Fully account for all funds and comply with legal requirements;
- Set incentives at an appropriate level that attracts a high level of participation;
- Enhance efficiency by utilizing or building on existing processes and programs to select projects and distribute trust funds; and
- Implement eligible mitigation actions by working with entities that have administrative and programmatic structures in place for implementing diesel emissions reduction projects.

## **Eligible Mitigation Actions Selected and the Percentage of Funds to be Used for Each Action**

### *Eligible Mitigation Actions*

Beneficiaries may utilize Trust funds for eligible mitigation action expenditures established in the consent decrees, specifically the scrapping, repowering or replacement of certain eligible vehicles and equipment:

- Class 8 Local Freight Trucks and Port Drayage Trucks (Eligible Large Trucks)
- Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)
- Railroad Freight Switchers
- Ferries/Tugs
- Ocean Going Vessels (OGV) Shorepower
- Class 4-7 Local Freight Trucks (Eligible Medium Trucks)
- Airport Ground Support Equipment
- Forklifts and Port Cargo Handling Equipment
- Light Duty Zero Emission Vehicle Supply Equipment
- Diesel Emission Reduction Act (DERA) Option

The Trust allows Wisconsin to request up to one-third of the state's allocation during the first year, and up to two-thirds of the state's allocation during the first two years to fund the following projects mandated in 2017 Wisconsin Act 59: (1) replacement of eligible state fleet vehicles (medium and large trucks); and (2) Transit Capital Assistance Grants (buses). Each of these projects serve the public interest by supporting administrative functions of Wisconsin state government and facilitating the efficient transport of persons via local mass transit operations.

### Replacement of Eligible State Fleet Vehicles.

In accordance with the settlement guidelines, DOA may use Trust funds for all costs incurred to replace eligible state fleet vehicles. Wisconsin will distribute no less than \$10 million or 15% of its initial allocation of trust funds to replace and scrap 1992-2009 medium-duty and heavy-duty trucks in the State Fleet. These funds will be distributed to eligible state agencies after receiving the Governor's approval per §20.915, Wis. Stats., and conducting an open and transparent bidding process per §16.75, Wis. Stats., to purchase vehicles while maximizing the Trust allocation. This process will be administered by the Wisconsin VW Mitigation Program with assistance from the Department of Administration (DOA) Bureau of Enterprise Fleet and the State Bureau of Procurement.

The Bureau of Enterprise Fleet has established protocols for tracking all aspects of state fleet vehicles, including model, year, class, size, and engine type. This will allow the VW Mitigation Program to easily identify vehicles that fall into Eligible Mitigation Action categories as defined by the State Trust Agreement. Additionally, established State Bureau of Procurement processes for purchasing new vehicles will allow for

efficient vehicle replacement following the funding award. Replacing inefficient diesel-powered engines will contribute to the main project goal of reducing NOx and associated emissions in Wisconsin. Information related to the bidding, purchase, replacement and scrapping of these vehicles will all be made public on the Wisconsin Volkswagen Mitigation Program Website allowing for a completely transparent process.

#### Transit Capital Assistance Grants.

DOA shall establish a program that will competitively award up to \$32 million or 47% of the Trust funds to eligible grant applicants for the replacement of public transit vehicles, giving preference to communities or routes that DOA determines are critical for connecting employees with employers. In establishing this grant program, DOA will work closely with the Wisconsin Department of Transportation (WisDOT) which has established public transit assistance grant programs. The existing WisDOT Public Transit Assistance Program will be modeled and modified as necessary to fulfill the goals and requirements of the Trust. This approach will streamline and expedite the implementation of the Trust and allow the state to build on existing expertise. This approach will also reduce the burden on applicants because they will use a familiar process to apply for funds. Additionally, by utilizing existing mechanisms to announce funding, information will be easily distributed to potential applicants.

The DOA Bureau of Financial Management will be a critical resource throughout the entire grant process to ensure accurate accounting and distribution of Trust funds.

Replacing and scrapping old diesel buses will maximize the Trust's air quality benefits in Wisconsin, including reduction of NOx and PM2.5. Information related to the purchase, replacement and scrapping of public transit vehicles will all be made available on the Wisconsin Volkswagen Mitigation Program Website allowing for a completely transparent process.

This project will assist past and current Wisconsin government agency efforts to reduce diesel emissions including several DNR programs utilizing Midwest Clean Diesel Initiative and Diesel Emission Reduction Funds (DERA), a state-funded DOA Diesel Truck Idling Reduction Grant Program, Public Service Commission-led programs and DOT-DERA funded programs.

#### *Jobs*

The Legislature mandated that DOA give preference to the replacement of public transit vehicles in communities or on routes that DOA determines are critical for the purpose for connecting employees with employers.<sup>1</sup> A total of 21 Wisconsin counties are within Wisconsin's twelve Metropolitan Statistical Areas (MSAs), plus one Minnesota county. Together, these areas account for 67.2% of the state's population,

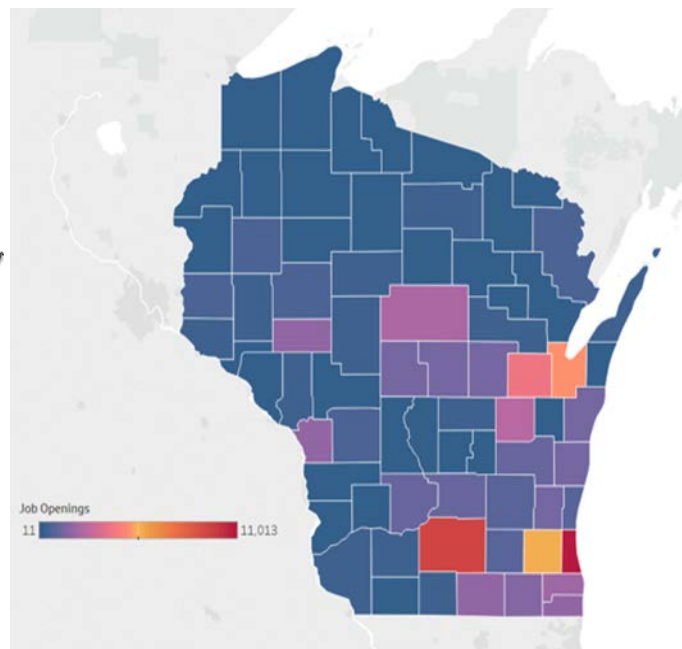
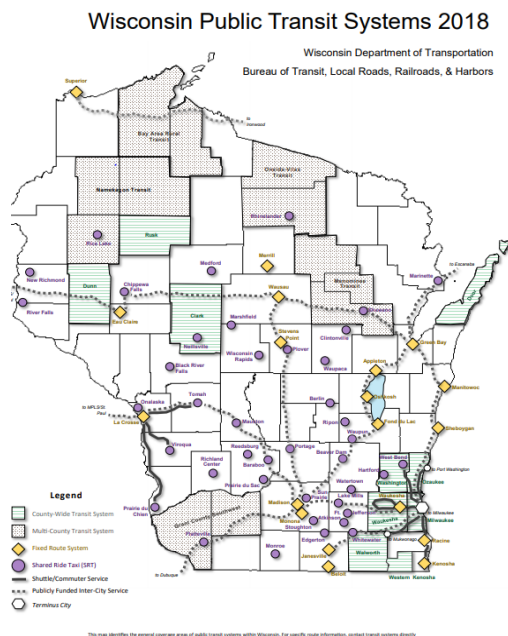
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<sup>1</sup> Wis. Stats. s. 16.047(4m)(c).

72.4% of the state's employment, and 70.8% of the state's personal income.<sup>2</sup> As a result, DOA expects most interest in the transit capital assistance grants program will be from applicants in the following twelve MSAs:

- Appleton - Calumet and Outagamie Counties, WI
- Eau Claire - Eau Claire and Chippewa Counties, WI
- Fond du Lac - Fond du Lac County, WI
- Green Bay - Brown, Kewaunee and Oconto Counties, WI
- Janesville - Rock County, WI
- La Crosse - La Crosse County, WI and Houston County, MN
- Madison - Columbia, Dane and Iowa Counties, WI
- Milwaukee-Waukesha-West Allis - Milwaukee, Waukesha, Ozaukee and Washington Counties, WI
- Oshkosh-Neenah - Winnebago County, WI
- Racine - Racine County, WI
- Sheboygan - Sheboygan County, WI
- Wausau - Marathon County, WI

As noted in the maps below, the greatest concentrations of job openings are in counties within Wisconsin MSAs. The greatest numbers of openings are in the Milwaukee-Waukesha-West Allis, Madison, Appleton, La Crosse, Eau Claire, Wausau, Oshkosh-Neenah, Janesville and Racine MSAs.



Sources: <http://wisconsin.gov/Documents/travel/pub-transit/system-map.pdf>; Department of Workforce Development (jobs currently posted to [Job Center of Wisconsin](http://www.jobcenter.wisconsin.gov) CW on 4/2/18).

<sup>2</sup> See <https://www.revenue.wi.gov/DORReports/msawinter2014.pdf>.



### *Administrative Costs*

The Trust allows for 15% of funds to support administrative costs. Wisconsin estimates the administrative costs associated with implementing the Eligible Mitigation Actions will be approximately 5% of the total cost of each program. These funds will cover program implementation, outreach, solicitation, application review, accounting, audits, legal compliance, recordkeeping, reporting and other related costs as allowed in the State Trust Agreement. This cost estimate is based on the historical costs of administering similar programs. Wisconsin will report its actual program implementation administrative costs as part of its regular reports to the Trustee and the public.

### *Remaining Funds*

The remaining \$25.1 million or approximately 37.5% of Wisconsin's initial Trust allocation will be distributed among Eligible Mitigation Actions in response to public comment and further gubernatorial and/or legislative instruction. Wisconsin expects to submit a revised BMP regarding these funds at a later date.

### *Funding Requests*

The Trustee must inform the Beneficiary and make public its decision to approve, deny, or request modifications or additional information within sixty (60) days of receipt of a funding request. The Trustee must approve funding requests that meet the requirements of the State Trust Agreement and begin disbursing funds within fifteen (15) days of funding request approval according to the schedule and written instructions provided by the Beneficiary. The Trustee will make all Eligible Mitigation Action funding requests available to the public, as will the State of Wisconsin.

## **Description of how Wisconsin will Consider the Potential Beneficial Impact of the Selected Eligible Mitigation Actions on Air Quality in Areas that Bear a Disproportionate Share of the Air Pollution Burden Within its Jurisdiction**

Mobile On-Road Diesel Heavy Duty Vehicles comprise 27.70 % of NOx emissions in Wisconsin. The selected eligible mitigation action projects of the replacement of on-road diesel heavy duty state fleet vehicles and the replacement of on road diesel heavy duty public transit vehicles aims to positively impact air quality in areas that bear a disproportionate share of the air pollution burden in Wisconsin.

### *NOx*

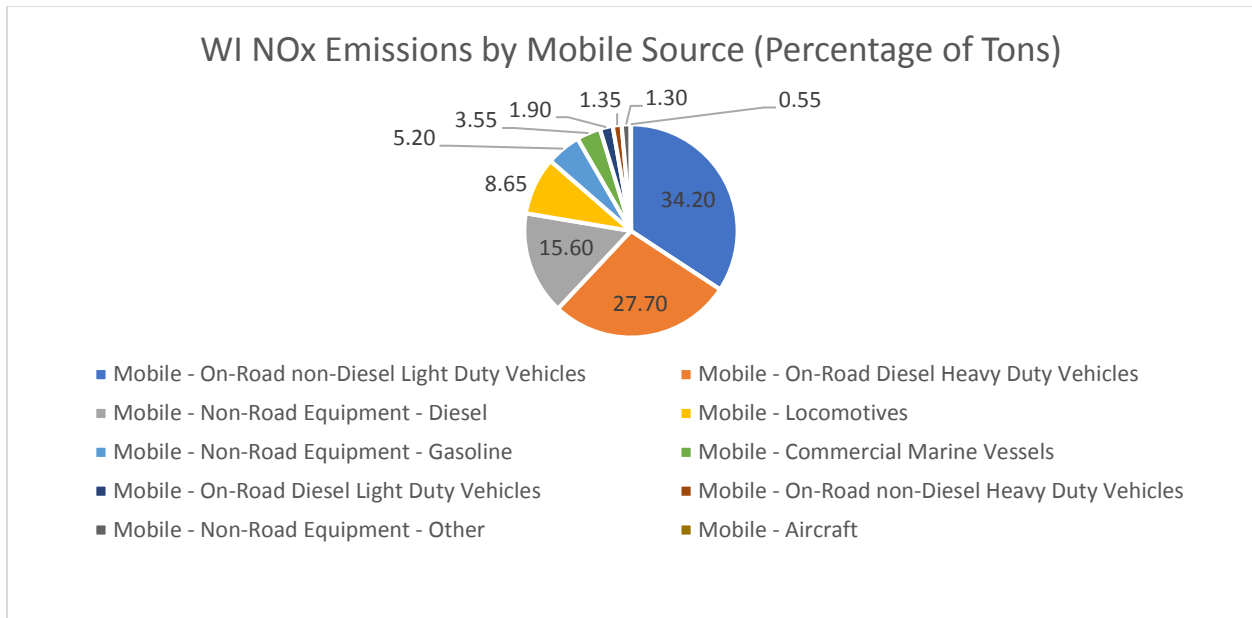
The total NOx emissions from all mobile sources in Wisconsin in 2014 totaled 159,700 tons.<sup>3</sup> On-road Diesel Heavy-Duty Vehicles<sup>4</sup> made up nearly 28% of all mobile source NOx emissions in Wisconsin. Wisconsin's selected eligible mitigation actions apply to

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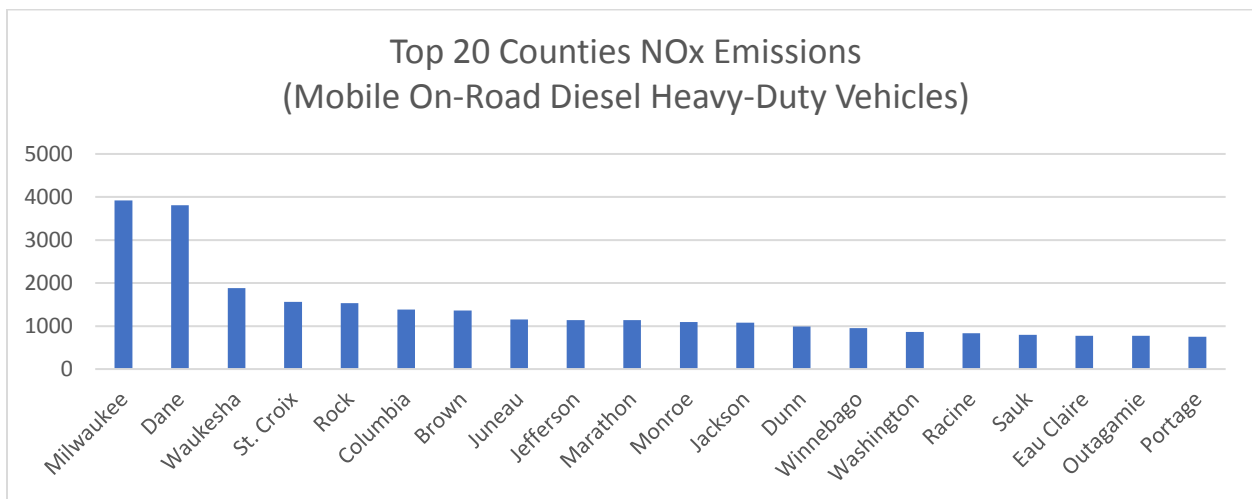
<sup>3</sup> See 2014 NEI data, available at <https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data> (last visited March 19, 2018).

<sup>4</sup> EPA defines "Heavy duty vehicle" as "any motor vehicle rated at more than 8,500 pounds GVWR or that has a vehicle curb weight of more than 6,000 pounds or that has a basic vehicle frontal area in excess of 45 square feet."

Class 4-8 Fleet Vehicles, which have a gross vehicle weight rating of 14,001 - 33,001 or more pounds and fall within the On-road Diesel Heavy-Duty Vehicle category that contributed to significant mobile source NOx emissions in the state.



Additionally, in choosing which state fleet vehicles and public transit buses to replace, DOA will consider the location of these vehicles to maximize the Trust’s air quality benefits in Wisconsin. The following chart shows which counties have the most NOx emissions from on-road diesel heavy duty vehicles.



DOA will consider many other factors including the vehicle age, miles traveled and remaining useful life, and ability of the transit authority to connect people with jobs and the potential emissions reduction in evaluating vehicle replacement.

## Benefits of Reduction of NOx emissions in Wisconsin

The primary objective of the BMP is to reduce NOx emissions from mobile sources in Wisconsin. Nitrogen gas, normally unreactive, comprises about 80 percent of the air. Under certain conditions nitrogen gas can combine with oxygen, forming different gaseous compounds, collectively known as nitrogen oxides. Major NOx sources include fuel combustion in power plants and automobiles. NOx emissions undergo chemical reactions in the atmosphere to form fine particulate matter (PM2.5) and ground-level ozone. The latest science and data demonstrate that local NOx concentrations do not meaningfully impact ozone levels measured at many Wisconsin monitors; however, reducing NOx emissions in Wisconsin should help reduce ozone and other pollutant levels across the region.

### PM2.5

Fine particulate matter (PM2.5) is emitted both directly from the exhaust of diesel engines and formed through secondary reactions of NOx and other atmospheric pollutants. The PM2.5 emitted directly through diesel exhaust can be deeply inhaled into the lungs and/or transferred into the bloodstream, resulting in significant health complications. Elevated concentrations of PM2.5 in the atmosphere also contribute to regional haze that reduces the visibility and clarity of distant objects. The EPA has established national ambient air quality standards (NAAQS) for PM2.5 exposure. All Wisconsin counties currently meet the PM2.5 NAAQS.

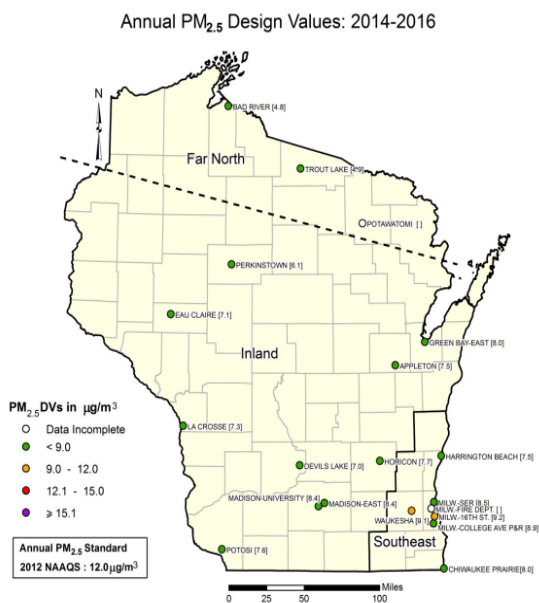


Figure 7. The annual PM<sub>2.5</sub> design values for each monitoring site for 2014-2016. Note that the Far North region includes the three sites shown, but its boundaries are not clearly defined.

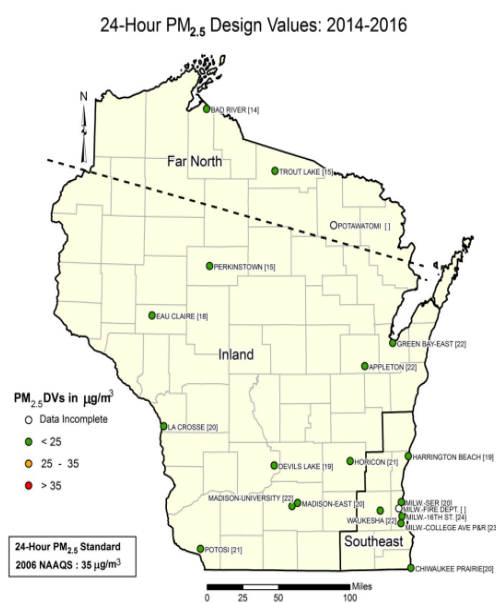


Figure 8. The 24-hr PM<sub>2.5</sub> design values for each monitoring site for 2014-2016. Note that the Far North region includes the three sites shown, but its boundaries are not clearly defined.

Source: Wisconsin Department of Natural Resource's 2017 Wisconsin Air Quality Trends Report<sup>5</sup>

<sup>5</sup> See <https://dnr.wi.gov/files/PDF/pubs/am/AM553.pdf>.

## Ozone

Ozone forms through a chemical reaction between NO<sub>x</sub> and volatile organic compounds. Ground-level ozone is a major component of smog and can cause asthma and other respiratory problems. As a result, the Wisconsin Department of Natural Resources (DNR) monitors ground-level ozone around the state to ensure these areas are meeting EPA's NAAQS for ground level ozone. Until October 1, 2015 that level was 75 ppb, when it was lowered to 70 ppb.<sup>6</sup>

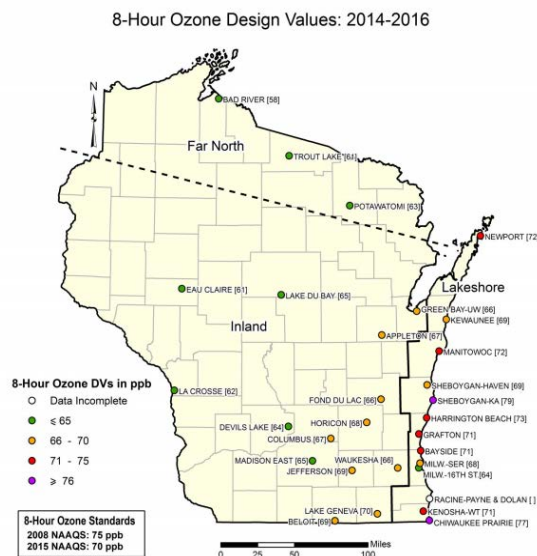


Figure 3. The 8-hr ozone design values for each monitoring site<sup>5</sup> for 2014-2016. Note that the Far North region includes the three sites shown, but its boundaries are not clearly defined.

Source: Wisconsin Department of Natural Resource's 2017 Wisconsin Air Quality Trends Report<sup>7</sup>

## Description of the expected ranges of emission benefits Wisconsin estimates would be realized by the implementation of the Eligible Mitigation Actions identified in the Beneficiary Mitigation Plan.

DOA utilized the United States Environmental Protection Agency's Diesel Emissions Quantifier<sup>8</sup> tool to estimate the expected ranges of emissions reductions that should be realized by implementing each Eligible Mitigation Action project.

### *Replacement of Eligible State Fleet Vehicles*

DOA has not established which state fleet vehicles will be replaced. However, the department has identified state fleet vehicles eligible for replacement. These vehicles were considered to estimate the expected range of emissions benefits from the replacement of eligible state fleet vehicles. Those benefits are presented in the table below.

<sup>6</sup> See <https://www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf>.

<sup>7</sup> See <https://dnr.wi.gov/files/PDF/pubs/am/AM553.pdf>.

<sup>8</sup> See <https://www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq>.

<b>Pollutant</b>	<b>NOx</b>	<b>PM2.5</b>	<b>Hydrocarbons</b>	<b>Carbon Monoxide</b>
Percent Reduced over Useful Vehicle Life	79.1% - 95.6%	41.5% - 99.2%	46.4% - 95.4%	46.4% - 94.1%

*Transit Capital Assistance Grants*

DOA has not selected public transit buses for replacement. However, the Wisconsin Public Transit Association provided DOA with a list of qualifying buses. This list was evaluated to estimate the expected range of emissions benefits from the Transit Capital Assistance Grant Program. Those benefits are presented in the table below.

<b>Pollutant</b>	<b>NOx</b>	<b>PM2.5</b>	<b>Hydrocarbons</b>	<b>Carbon Monoxide</b>
Percent Reduced over Useful Vehicle Life	79.7% - 94.4%	48.8% - 98.1%	58.3% - 98.1%	58.3% - 96.7%

Emission reductions records will be available on the Wisconsin VW Mitigation website.<sup>9</sup>

**Public Comment**

*Outreach*

The primary use of settlement funds over the next three years in Wisconsin was determined through the State’s Biennial Budget process. Public input was solicited and considered during this legislative process, which included public hearings held throughout the state in March 2017 and public sessions, briefings and open legislative hearings between February 2017 and September 2017. In addition, interested members of the public provided input directly to DOA generally consisting of two types: (1) suggested uses of funds and (2) requests to be notified of planned uses of funds.

*Public Input on Beneficiary Mitigation Plan*

On April 25, 2018, DOA published this BMP and notice of the opportunity for public comment on its website<sup>10</sup> and through Wisconsin’s VW Mitigation Program email list-serve. DOA will also provide other state agencies with the opportunity to make the BMP available on their websites and through their email list serves. The public can provide input on the BMP via email, letter, phone or in person. DOA intends to hold at least two public meetings in different parts of the state to gather comments on the BMP. These meetings will be posted on the State’s central public website providing open meeting notices and meeting minutes.<sup>11</sup> Wisconsin will continue to accept

<sup>9</sup> See <https://doa.wi.gov/Pages/vwsettlementwisconsin.aspx>.

<sup>10</sup> See <https://doa.wi.gov/Pages/vwsettlementwisconsin.aspx>.

<sup>11</sup> See <https://publicmeetings.wi.gov>.

comments on the State's BMP for the duration of the Wisconsin VW Mitigation Program.

*Ongoing Public Comment Opportunities*

Going forward, Wisconsin will accept comments via Wisconsin's VW Mitigation Program website, public meetings, individual meetings, phone and email. DOA will evaluate public comments received throughout program implementation to inform how the remaining Trust allocation is used.

*Public Availability of Trust Documents*

Wisconsin will account for Trust expenditures and conduct audits as necessary to ensure compliance with applicable Trust requirements. Wisconsin will provide required reports to the Trustee and make them available on the Wisconsin VW Mitigation Program website. Documentation of Trust expenses will be made available in accordance with Trust requirements and State law.

## **Appendix – Copy of Appendix D-2 Eligible Mitigation Actions and Expenditures**

Excerpted from the Environmental Mitigation Trust Agreement for State Beneficiaries

<https://www.epa.gov/enforcement/environmental-mitigation-trust-agreements>

**APPENDIX D-2**

**ELIGIBLE MITIGATION ACTIONS AND MITIGATION ACTION EXPENDITURES**

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.

- c. 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.
- d. 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.
- e. For Government Owned Eligible Airport Ground Support 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 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)” shall mean vehicles with a Gross Vehicle Weight Rating (GVWR) greater than 14,001 lbs. used for transporting people. See definition for School Bus below.

“Class 8 Local Freight, and Port Drayage Trucks (Eligible Large Trucks)” shall mean trucks with a Gross Vehicle Weight Rating (GVWR) greater than 33,000 lbs. used for port drayage and/or freight/cargo delivery (including waste haulers, dump trucks, concrete mixers).

“CNG” shall mean Compressed Natural Gas.

“Drayage Trucks” shall mean trucks hauling cargo to and from ports and intermodal rail yards.

“Forklift” shall mean nonroad equipment used to lift and move materials short distances; generally includes tines to lift objects. Eligible types of forklifts include reach stackers, side loaders, and top loaders.

“Freight Switcher” shall mean a locomotive that moves rail cars around a rail yard as compared to a line-haul engine that moves freight long distances.

“Generator Set” shall mean 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” shall mean 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. The term “State” means the several States, the District of Columbia, and the Commonwealth of Puerto Rico.

“Gross Vehicle Weight Rating (GVWR)” shall mean the maximum weight of the vehicle, as specified by the manufacturer. GVWR includes total vehicle weight plus fluids, passengers, and cargo.

- Class 1: < 6000 lb.
- Class 2: 6001-10,000 lb.
- Class 3: 10,001-14,000 lb.
- Class 4: 14,001-16,000 lb.
- Class 5: 16,001-19,500 lb.
- Class 6: 19,501-26,000 lb.
- Class 7: 26,001-33,000 lb.
- Class 8: > 33,001 lb.

“Hybrid” shall mean a vehicle that combines an internal combustion engine with a battery and electric motor.

“Infrastructure” shall mean the equipment used to enable the use of electric powered vehicles (e.g., electric vehicle charging station).

“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).