



State of Oregon Department of Environmental Quality

APPENDIX D-4

Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary State of Oregon

Lead Agency Authorized to Act on Behalf of the Beneficiary Oregon Department of Environmental Quality (Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)

Action Title:	Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)
Beneficiary's Project ID:	School Bus Replacement Cycle 4
Funding Request No.	(sequential) 4
Request Type: (select one or more)	<input type="checkbox"/> Reimbursement <input checked="" type="checkbox"/> Advance <input type="checkbox"/> Other (specify): _____
Payment to be made to: (select one or more)	<input checked="" type="checkbox"/> Beneficiary <input type="checkbox"/> Other (specify): _____
Funding Request & Direction (Attachment A)	<input checked="" type="checkbox"/> Attached to this Certification <input type="checkbox"/> To be Provided Separately

SUMMARY

Eligible Mitigation Action <input checked="" type="checkbox"/> Appendix D-2 item (specify): School Bus EMA 2 Action Type <input checked="" type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal):
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1): See Attached
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): See Attached
Estimate of Anticipated NOx Reductions (5.2.3): See Attached
Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1): See Attached
Describe how the Beneficiary will make documentation publicly available (5.2.7.2). See Attached
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8). See Attached
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). See Attached

Beneficiary Eligible Mitigation Action Certification – Supplemental

Information Beneficiary: State of Oregon

Lead Agency: Oregon Department of Environmental Quality

In support of Funding Request No. 4

SUMMARY

Eligible Mitigation Action	<input checked="" type="checkbox"/> Appendix D-2 item (specify): <u>2</u>
Action Type	<input checked="" type="checkbox"/> Item 10 – DERA Option (5.2.12) (specify and attach DERA Proposal)
Explanation of how funding request fits into Beneficiary’s Mitigation Plan (5.2.1):	
<p>The state of Oregon in Environmental Mitigation Plan posted in March 2018 identified environmental priorities for the state that mitigation actions prescribed in Appendix D-2 can address, including air quality, public health and climate change. The plan specifically outlined a protocol for selection of school buses for replacement or emission upgrades to protect the health of vulnerable populations, i.e., young children riding in school buses, and would improve air quality and mitigate climate forcers. This funding request is part of an overall program outlined in the Mitigation Plan. This request will support an estimated 12 months of activity in what is expected to be a four year program to upgrade school buses in districts across the state, primarily by scrapping older diesel buses and replacing them with lower emission vehicles.</p>	
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):	
<p>School districts will be offered the opportunity to receive funding to scrap and replace older diesel powered school buses or, using the DERA Option to install diesel particulate filters. The order in which districts are contacted is based on a draw of numbers randomly assigned to districts with buses within the median model year of the overall fleet in the state. DEQ expects to complete about one quarter of the 450 buses per year to better manage administrative costs and to minimize the replacement bubble as these buses eventually age out of the fleet 10-12 years in the future. We anticipate the school bus program will draw an estimated \$18 - 22 million from the Oregon allocation under Appendix D, approximately 26 percent of the total available.</p> <p>The focus, in these school bus replacement cycles, is on reducing impacts to young people who are especially vulnerable to health effects from diesel exhaust exposure. In children, particulate and nitrogen oxide pollution affects lung function and lung growth because of higher respiration rates and continuing lung development in young people. Affirming the connection between children’s health and air pollution, the American Academy of Pediatrics adopted a policy statement recommending reductions in mobile source pollution including diesel engines.</p> <p>DEQ anticipates simultaneous reductions in NOx, particulate and air toxic emissions to be on the order of 80 to 90 percent depending upon the engine size, category and age. As noted earlier, DEQ anticipates public health and environmental benefits over the wide range of impacts associated with exposure to exhaust from legacy diesel engines. DEQ anticipates that most of the replacement vehicles and equipment will result in improved fuel economy from advances in engine technology. As a result, climate change benefits are realized from reductions in pollutants like carbon dioxide and black carbon.</p>	

Estimate of Anticipated NOx Reductions (5.2.3):

We anticipate the majority of actions will involve vehicle replacement, which will result in emission reductions in NOx, PM and other harmful pollutants. The new bus can be powered by late model diesel, propane, natural gas or electricity with the choice dependent upon the district's needs and desires. The estimated emission reductions are based on replacement with a late model diesel bus. Any alternative fuel buses that are purchased can be expected to result in additional reductions in one or more of the pollutants shown here.

Lifetime Results (short tons)	NOx	PM_{2.5}	Hydrocarbons	Carbon Monoxide	Carbon Dioxide	Black Carbon (CO_{2e})
Amount reduced	36.6	3.1	4.8	17.7	481.9	5,172.9
Percent Reduced	89.6%	97.9%	91.1%	90.9%	7.5%	97.9%

Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1):

Oregon Department of Environmental Quality

Describe how the Beneficiary will make documentation publically available (5.2.7.2):

The Oregon Department of Environmental Quality (DEQ), as the lead agency for the state of Oregon implementing the Environmental Mitigation Plan, has established a webpage on the VW Settlement and mitigation actions, <http://www.oregon.gov/deq/aq/programs/pages/vw-diesel-settlement.aspx>. DEQ is subject to Oregon Public Records and Public Meetings Laws, Oregon Revised Statutes (ORS) chapter 192. These laws and accompanying guidance prepared by the Oregon Attorney General outline best practice for public access to records and exemptions in the case of confidential business information and personally identifiable information meeting exemption criteria. To the limited extent information is submitted to DEQ that meets exemption criteria under the Public Records Law, DEQ will maintain that information as confidential.

Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8):

Environmental Mitigation Funds will provide up to 30 percent or \$50,000, whichever is less, towards school bus replacement costs. Recipients provide the balance. If a recipient chooses to install diesel particulate filters, to be managed under Option 10 – DERA (5.2.12), costs to purchase and install are reimbursed up to 100 percent.

Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9):

On February 5, 2018, DEQ provided notice, via email, of availability of Mitigation Action Funds to the parties named in 4.2.8 as well as the Bonneville Power Administration, the Federal Bureau of Prisons - Sheridan, the United States Coast Guard Pacific Area and the Army Corps of Engineers. DEQ also mailed the same notice to the Bend Field Office of the U.S. Bureau of Reclamation and the Oregon office of the U.S. Bureau of Land Management. The notice included a summary description of the Volkswagen legal issue including links to Appendix D-2, a listing of Eligible Mitigation Actions and instructions on how to sign up for notification about implementation steps, fund availability and application protocols for the program in Oregon.

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).

This program will reduce emission impacts to children riding on school buses as well as individuals who are themselves in the roadway travelling behind buses and individuals either living, working or simply occupying areas near public right of way where these vehicles operate. Studies have shown that children riding school buses have experienced a disproportionate impact simply by riding in the bus. School buses themselves are part of the larger diesel powered fleet that is common in Oregon. DEQ has completed analyses of exposure to toxic air contaminants including diesel emissions showing a disproportionate impact to communities of color and low income. This disproportionate impact comes from the operation of thousands of vehicles, of which diesel school buses are a small subset. This program is part of a larger effort undertaken by school districts across the state of Oregon to reduce emissions impacts from older diesel school buses.

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).
See Attached

ATTACHMENTS
(CHECK BOX IF ATTACHED)

- Attachment A Funding Request and Direction.
- Attachment B Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4).
- Attachment C Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11).
- Attachment D Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6). [Attach only if project involves vendor expenditures exceeding \$25,000.]
- Attachment E DERA Option (5.2.12). [Attach only if using DERA option.]
- Attachment F Attachment specifying amount of requested funding to be debited against each beneficiary's allocation (5.2.13). [Attach only if this is a joint application involving multiple beneficiaries.]

CERTIFICATIONS

By submitting this application, the Lead Agency makes the following certifications:

1. This application is submitted on behalf of Beneficiary State of Oregon, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.
2. Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.
3. This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.
4. Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)
5. Beneficiary will maintain and make publicly available all documentation submitted in

support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

DATED: 10/28/2021



Brian Boling
Central Services Division Administrator

Oregon Department of Environmental Quality

[LEAD AGENCY]

for

State of Oregon

[BENEFICIARY]

ATTACHMENT B

**Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation
and Expenditures Timeline (5.2.4)**

PROJECT MANAGEMENT PLAN

PROJECT SCHEDULE AND MILESTONES

Milestone	Date
Notify school districts of lottery selection	May, 2018
Webinar/in-person briefing on program requirements for group of ~ 30 buses	Initial start July, 2018 – Cycle repeats every three months
Grant agreements signed	Start + 4 weeks
Recipients complete procurement and submit purchase orders	Start + 9 weeks
Buses delivered	Start + 5 months
Recipients submits evidence of bus scrapping, invoices and other documents required for reimbursement	Start + 5.5 months
DEQ reviews, request corrections if necessary, certifies project completion, provides reimbursement	Start + 6.5 months
DEQ reports to Trustee on status of and expenditures with Mitigation Actions completed and underway	January 30 and July 30, ongoing

PROJECT BUDGET

Period of Performance: January 2021 – December 2021			
Budget Category	Total Approved Budget	Share of Total Budget to be Funded by the Trust	Cost Share, if applicable
1. Equipment Expenditure	\$ 22,328,781	\$6,460,488	\$ 15,868,293
2. Contractor Support	\$ 0	\$ 0	\$ 0
3. Subrecipient Support	\$ 0	\$ 0	\$ 0
4. Administrative ¹	\$ 969,073	\$ 969,073	\$ 0
Project Totals	\$ 22,328,781	\$ 7,429,561	\$ 15,868,293
Percentage	100%	30%	70%

¹Subject to Appendix D-2 15% administrative cap.

PROJECTED TRUST ALLOCATIONS

	2021
1. Anticipated Annual Project Funding Request to be paid though the Trust	\$7,429,561
2. Anticipated Annual Cost Share	\$15,868,293
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$22,328,781
4. Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation	\$14,252,293
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	\$7,429,561
6. Total Funding Allocated to Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$21,681,854
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$72,967,518
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 7 minus line 6)	\$51,285,664

ATTACHMENT C

Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11)

The Oregon Department of Environmental Quality (DEQ), as the lead agency for the state of Oregon implementing the Environmental Mitigation Plan, has established a web page on the VW Settlement and mitigation actions, <http://www.oregon.gov/deq/aq/programs/pages/vw-diesel-settlement.aspx>. DEQ posted links on that website to the documentation required to be made public under Paragraph 7 of the Appendix D-3 Certification for Beneficiary Status form. DEQ also is subject to Oregon Public Records and Public Meetings Laws, Oregon Revised Statutes (ORS) chapter 192. These laws and accompanying guidance prepared by the Oregon Attorney General outlines best practice for public access to records and exemptions in the case of confidential business information and personally identifiable information meeting exemption criteria. To the limited extent information is submitted to DEQ that meets exemption criteria under the Public Records Law, DEQ will maintain that information as confidential.

Funding requests and expenditure reporting

DEQ is directly soliciting eligible projects among school districts in a process outlined in authorizing legislation (SB 1008, 2017). In the future, we anticipate authorization for funding among other eligible mitigation categories. In this situation projects may be solicited by a competitive process selecting projects by scoring against identified criteria. In either case, records of the applicant and selected projects will be posted and made available on the DEQ web page on the VW Settlement and mitigation actions and on the Oregon Records Management System (ORMS), which is also publicly accessible via the Internet. Information about the project and expenditures in the ORMS will be accessible via readily available search procedures. Records will be retained until the termination date of the Environmental Mitigation Fund or by retention schedules determined by the State Archivist under ORS 192.105, whichever is longer.

ATTACHMENT D

Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$ 25,000 (5.2.6)

School Bus Replacement Projects

Bus Style	Diesel	Propane	Gasoline	Electric
Type A	\$ 60-85,000	\$ 60-95,000	\$ 55-77,000	\$ 225-260,000
Type B	NA	NA	NA	NA
Type C	\$ 90-125,000	\$ 105-142,000	\$ 85-123,000	\$325-355,000
Type D	\$ 105-170,000	NA	NA	\$ 365-400,000



State of Oregon Department of Environmental Quality

Attachment E – DERA Option FY 2020 State Clean Diesel Grant Program Work Plan and Narrative

2020 Diesel Emissions Reduction Act (DERA) State Grants

Work Plan and Budget Narrative Template

INSTRUCTIONS: States and territories applying for 2020 DERA State Grant funds must use this template to prepare their Work Plan and Budget Narrative.

Please refer to the 2019-2020 DERA State Grants Program Guide full program details, eligibility criteria and funding restrictions, and application instructions.

SUMMARY PAGE

Project Title: Oregon Diesel Replacement Vehicle Program- FY 2020

Project Manager and Contact Information

Organization Name: Oregon Department of Environmental Quality

Project Manager: Morgan Schafer

Mailing Address: 700 NE Multnomah Street

Portland, Oregon 97232

Phone: 503.229.6251

Fax: 503.229.6954

Email: Morgan.Schafer@state.or.us

Project Budget Overview:

	2019	2020
EPA Base Allocation	\$ 320,239	\$ 338, 283
EPA Match Bonus (if applicable)	\$ 160,120	\$ 169,142
State or Territory Voluntary Matching Funds (if applicable)	\$ 320,239	\$ 349,025
Mandatory Cost-Share	\$ 2,013,750	\$ 1,998,500
TOTAL Project Cost	\$ 2,814,348	\$2,854,950

Project Period

October 1, 2020 – September 30, 2021

Summary Statement

The state of Oregon proposes to continue soliciting interest among school districts that were unsuccessful in the EPA school bus rebate program. Additional school districts will be identified from a list of schools that did not receive funding under the State of Oregon’s initial Volkswagen Environmental Mitigation Plan. For the FY 2020 project period, we anticipate replacing or upgrading 15 school buses.

In addition, DEQ will focus grant funds toward vehicles and equipment affected by Oregon House Bill 2007, passed by the Oregon state legislature in 2019, and/or local clean diesel

contracting standards. For the FY 2020 project period, we anticipate replacing or upgrading a minimum of 3 pieces of diesel equipment. The final count is dependent on control method selected by the applicant and the actual pricing of controls.

Notice of this project will also be posted on DEQ's webpage, <http://www.oregon.gov/deq/air/programs/Pages/Diesel-Success-Stories.aspx>, Facebook page <https://www.facebook.com/oregondeq> and on its Twitter account.

SCOPE OF WORK

STATE/TERRITORY GOALS AND PRIORITIES: Localized concentrations of diesel particulate matter continue to represent ongoing public health challenges for healthy air quality. According to the 2014 NATA results, the average concentration for diesel particulate is 0.31 ug/m³. The Oregon benchmark for increased cancer risk from exposure to diesel particulate matter is 0.1 ug/m³.

In the state of Oregon heavy-duty on-road vehicles, including trucks and buses, are the largest contributors to emissions followed by non-road construction equipment. School buses are not a major contributor within the on-road category, however they constitute a priority focus based on exposure to children. Recent research looking at the effects of installing exhaust controls on school buses documented reduced absenteeism for children travelling to and from school in lower emission buses. This project assists school districts in meeting the goals outlined in ORS 468A.796 and will serve to make school buses not only the safest way to get to school but also one of the healthiest transport options to school.

Over the last seven years EPA has conducted a national solicitation of interest to participate in a rebate-based program for school bus replacement. The state of Oregon proposes to continue soliciting interest among districts that were unsuccessful in the EPA rebate program. The FY 2020 project will continue to use funds to treat diesel buses in qualified Oregon school districts under the terms of the current EPA grant guidelines.

In addition, DEQ will focus grant funds toward vehicles and equipment affected by Oregon House Bill 2007, passed by the Oregon state legislature in 2019, and/or local clean diesel contracting standards. HB 2007 regulated in-use medium- and heavy-duty on road vehicles and directed state contracting agencies to require clean contracting standards for certain public improvement contracts greater than \$20 million in value focused in three counties of concern for PM levels: Multnomah, Washington and Clackamas. In addition, the City of Portland and other local governments are also implementing clean contracting standards beginning in 2021 which will require the use of cleaner diesel engines for certain publicly funded construction projects.

VEHICLES AND TECHNOLOGIES: The project will contribute to pollution reduction strategies including aftermarket installation of exhaust controls, repowering of diesel engines or replacement of older, polluting diesel school buses with new, low emitting equivalent vehicles. The buses are owned by targeted school districts or are privately owned but operating under contract with districts. Up to 15 buses are projected for emission upgrades in one of the three technology techniques described above for this FY 2020 project.

In addition, grant funds will be used to treat heavy duty diesel vehicles and equipment such as backhoes, forklifts, loaders, cement mixers, dozers, and dump trucks that meet the EPA guidelines. Vehicle and equipment type and quantity will depend on funds available and contracting company interest.

The vehicles selected for replacement will meet all relevant conditions for replacement, equivalency and model years as outlined in current applicable EPA diesel award guidance. The highway diesel vehicles and buses purchased in this project will be powered by 2016 or newer model year engines. The Nonroad diesel vehicles and equipment purchased in this project will be powered by 2019 or newer model year engines. Exhaust controls, if installed, will be verified by either EPA or CARB protocols.

ROLES AND RESPONSIBILITIES: The OR DEQ will be responsible for determining eligible subgrantees, and providing technical assistance for fleet information and grant agreement criteria. OR DEQ will also ensure that all subgrantees will follow the EPA DERA guidelines regarding MBE/WBE, receiving numerous quotes for equipment, and submitting all reports on time. OR DEQ staff verify that proper destruction of each vehicle is verified and properly completed. All grant funds for subgrantees will be provided through reimbursements. Subgrantees are responsible for adhering to the grant agreement and submitting completed documentation as well as an invoicing requests for eligible reimbursements as directed by the EPA DERA 2020 guidelines to receive grant funds.

Subgrantees for this state allocation include school districts who have not received either DERA or VW funding or fleet owners that will be directly impacted by the change in construction standards.

School Buses: The Oregon districts in Table 1 have already communicated interest in DERA grant funding and were qualified to participate but were not funded in the prior EPA school bus rebate offerings or not selected for Oregon's initial Volkswagen Environmental Mitigation Plan. They will be contacted to confirm their current interest in participating in a school bus replacement project according to the FY 2020 State Clean Diesel Grant Program Information Guide.

Table 1: Oregon School Districts for DERA funding

Centennial School District 28-302
Sweet home School District 055
Siuslaw School District 97J
Eagle Point School District #9
Klamath County Schools
Bend La Pine School District
Reedsport School District Division 22
Warrenton-Hammond School District #30

Current Engine Model Year (EMY)	DPF	Vehicle or Engine Replacement: 2016 + EMY	Vehicle or Engine Replacement: Electric or Clean Alternative Fuels
1996 to 2006	Yes	Yes	Yes

The new buses will be the same type and similar horsepower to the older bus being replaced and be engine model year 2016 and newer.

The older buses will be scrapped or rendered permanently disabled using EPA approved methodologies. Evidence of appropriate disposal will be provided. Equipment and components that are salvaged from the bus being replaced can be sold and used as program income to offset school district program participation costs.

Funds from the FY 2020 DERA allocation will be paid out to the districts to reimburse up to 25% of the new bus replacement costs and 40% of eligible engine replacement costs and 100% of eligible exhaust after treatments. The participating school districts will contribute matching funds to complete the purchase from non-federal funds. The commitment to provide matching funds will be enforced through grant agreements with the participating school districts.

The new buses will be owned and operated for ongoing service in the transport of school children to and from school by the district or contractor with whom the sub-agreements have been made.

Medium- and Heavy-Duty Diesel: DEQ will focus grant funds toward vehicles and equipment affected by Oregon House Bill 2007, passed by the Oregon state legislature in 2019, and/or local clean diesel contracting standards.

Projects will be chosen based on the impact of regulatory action or procurement standards as well as the applicant’s ability to match and adhere to all EPA guidelines and deadlines. The current goals are replacement of a dump truck, a cement mixer, and a back hoe; repower of two dump trucks; and the retrofit of two construction vehicles. OR DEQ will adhere to reimbursement rates from the DERA guidelines.

TIMELINE AND MILESTONES:

Milestones	Due Date
EPA Award finalized	Oct 2020
Sub-grant agreements signed	Dec 2020 – April 2021
Procurement process completed	Feb 2021 – June 2021
Order placed for replacement vehicles or treatment	Feb 2021 – June 2021
Replacement vehicles delivered, older vehicles scrapped	June – September 2021
Quarterly reports filed to EPA	January, 2021 April, 2021 July, 2021 October, 2021
Final report to EPA	90 days after final closeout, Estimated Dec 2021

DERA PROGRAMMATIC PRIORITIES: This project will meet several of the programmatic priorities outlined in the Diesel Emissions Reduction Act. Some of the school districts identified have already been selected and qualified as meeting programmatic priorities when approved for consideration under previous years School Bus Replacement Funding Opportunities. Those project parameters ensure that projects that receive funding meet the DERA national priorities. Additional school districts will be identified from a list of schools that did not receive funding under the State of Oregon’s initial Volkswagen Environmental Mitigation Plan. That plan directed Oregon DEQ to assist school districts with retrofitting or replacing at least 450 diesel powered school buses across the state. While the districts are located throughout the state, with

varying levels of ambient exposure to diesel particulate, several studies have shown that diesel school buses may self-pollute, leading to elevated exposures while riding or being in proximity to the bus. Low emission school buses have also been shown to reduce absenteeism.

In addition, the medium- and heavy-duty diesel treatments will be targeted to the most densely populated areas in Oregon that also impact the most vulnerable populations. The eligible projects will maximize public health benefits, are the most cost-effective, serve areas that receive a disproportionate quantity of air pollution from diesel fleets, include a certified engine configuration and maximize the useful life of the certified engine configuration. The grants provided under this program will reduce those exposures to sensitive populations, including school age children.

EPA’S STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS:

Replacing older, diesel powered school buses will reduce emissions that have a deleterious effect on human health and the environment. Specifically, it supports EPA’s 2018-2022 Strategic Plan Goal 1 “Core Mission: Deliver real results to Americans with clean air, land, and water, and ensure chemical safety” and Objective 1.1 “Improve Air Quality”. The funded activities will reduce diesel emissions from existing school buses, heavy duty vehicles and equipment through a variety of upgrades, e.g., exhaust after treatment, and engine repowering or vehicle replacement. The school districts and fleet owners will choose the optimal strategy for their needs.

Projected Air Quality Improvements Achieved

Emission reductions were calculated using the Diesel Emission Quantifier.

Emission Results and Health Benefits for Project: DERA 2020 WorkPlan

Emission Results Health Benefits

Emission Results [?]

Here are the combined results for all groups and upgrades entered for your project.¹

<i>Annual Results (short tons)²</i>	NO_x	PM2.5	HC	CO	CO₂	Fuel³
Baseline for Upgraded Vehicles/Engines	2.375	0.175	0.263	1.028	436.2	38,777
Amount Reduced After Upgrades	2.012	0.170	0.223	0.925	-0.9	-76
Percent Reduced After Upgrades	84.7%	96.7%	84.8%	90.0%	-0.2%	-0.2%

<i>Lifetime Results (short tons)²</i>	NO_x	PM2.5	HC	CO	CO₂	Fuel³
Baseline for Upgraded Vehicles/Engines	7.499	0.534	0.750	3.055	1,495.3	132,913
Amount Reduced After Upgrades	6.140	0.513	0.600	2.732	-1.7	-152
Percent Reduced After Upgrades	81.9%	96.0%	80.0%	89.4%	-0.1%	-0.1%

<i>Lifetime Cost Effectiveness (\$/short ton reduced)</i>	NO_x	PM2.5	HC	CO	CO₂	Fuel³
Capital Cost Effectiveness ⁴ (unit & labor costs only)	\$50,491	\$604,621	\$516,352	\$113,466	\$0	
Total Cost Effectiveness ⁴ (includes all project costs)	\$465,060	\$5,568,993	\$4,755,971	\$1,045,100	\$0	

¹ Emissions from the electrical grid are not included in the results.

² 1 short ton = 2000 lbs.

³ In gallons; fuels other than ULSD have been converted to ULSD-equivalent gallons.

⁴ Cost effectiveness estimates include only the costs which you have entered.

DEQ will track progress of the project and, upon project completion, calculate emission reductions using tools like the Diesel Emission Quantifier.

Outcomes

Short-term:

DEQ will promote the project among interested parties as well as consider additional opportunities within the local media.

Medium-term:

Diesel emissions within the selected school districts will be reduced. There will be opportunities to reduce diesel emissions originating from work carried out under certain publicly funded construction projects. The emissions reduction benefits that are realized as a result of projects completed under this grant would likely carry over to other non-government construction work across the region where those vehicles and equipment would be used in the future.

Long-term:

- Number of children with asthma and other health problems related to diesel emissions will be reduced.

- Ambient air quality will improve in the targeted communities.
- Excess cancer risk from exposure to diesel particulate matter will be reduced. Notable atmospheric change impacts will be eliminated from the operation of the buses due to the reduction in gases like carbon dioxide and other atmospheric warming forcings like black carbon.

SUSTAINABILITY OF THE PROGRAM: The fleet owners will continue to provide ongoing maintenance of the all vehicles to ensure a long, useful life. They will report miles travelled annually to DEQ for three years following purchase or treatment. The Department will promote opportunities to publicize the project within the communities where these vehicles operate and will continue to use these efforts to lead others to take similar actions.

Oregon DEQ will provide a public notification that lists project information on the State website within 60 days of the grant notification. Website postings will describe the project, the types of vehicles funded and dollar amount of grants.



Explanation of Budget Framework

1. Personal Services

The Personal Services calculation is based on 3.91 months of work (.162 FTE) of a Program Analyst 2. Months of work and FTE are rounded for display purposes.

2. Fringe Benefits

Fringe benefits are shown as a percentage of personal service salary amounts, and comprised of a combination of several factors such as FICA/Medicare @ 7.65%, Pension Costs @ 25.09%, Medical/Dental, Workman's Comp., and Unemployment @ \$1,394/month.

3. Travel

This request does not include Travel.

4. Equipment

This request does not include Equipment.

5. Supplies

Typical categories of Office Supplies are: Paper, pens, pencils, staplers, & misc. desktop items. Cost estimates for office supplies are based on an average monthly cost per FTE. These costs are not included in the indirect rate.

6. Contractual

This request does not include Contractual costs.

7. Construction

This request does not include Construction costs.

8. Other Services

The service costs in "Other Services" have been updated and are based on annualized actual historical costs for the rolled-up categories required by EPA for planning and reporting. These estimates are derived from a wide range of different DEQ program activities. Some specific activities have higher costs in some categories, whereas others have lower costs. On the average, however, our estimates for TOTAL S&S costs are close to the costs actually incurred in the course of completing our work. None of the costs within this category are included in the indirect rate.

Telecommunications

Cost estimates for telecommunications are based on an average monthly cost per FTE.

Data Processing

Typical data processing service charges are comprised of computer mainframe support, server support, peripheral support, and computer processing support. Cost estimates for data processing services are based on an average monthly cost per FTE.

Facilities Rental

Cost estimates for facilities rental are based on an average monthly cost per FTE.

Other Services

- Postal & delivery services
- Other miscellaneous office services (such as equipment relocation)
- Rental of office equipment
- State of Oregon Motor Pool Assessment Allocation (based on usage)

Expendable Property & IT Expendable Property

Reusable items purchased for under \$5,000 (and that have a useful life beyond a year) are categorized as Expendable Property & IT Expendable Property. Items typically found in this category are personal computers and related software, office furniture, and expensed technical equipment when related to laboratory work.

Sub Awards to Oregon School Districts

Payments will be passed through to Oregon school districts for the purpose of purchasing diesel particulate filters, engine repowers or replacement school buses. A combination of federal funds and Volkswagen Settlement Appendix D funds allocated to the state of Oregon will be passed through to the school districts for no more than the DERA funding limits.

Matching funds for the project that covers the Mandatory Cost Share from project activities, i.e., 75% of bus replacement costs or 60% of engine repowering, are provided by school districts.

The distribution of funding among the technology choices possible will be determined by the choices made by school districts based on their evaluation of optimal eligible technologies. For purposes of this budget, we estimated 22 bus replacements. An estimated distribution of costs from this projected outcome is shown below.

	Vehicle Replacements 22 Total	All Other Expenses	Totals
Federal EPA	\$480,000	\$27,425	\$507,425
Voluntary/Mandatory	\$2,320,000	\$27,525	\$2,347,525
Totals	\$2,800,000	\$54,950	\$2,854,950

9. Overhead/Indirect

The indirect rate of 21.70% is documented in an indirect cost rate negotiation agreement with EPA dated, July 18, 2019.

Administrative Costs Expense Cap

The net pass through amount of the federal funds from this grant award is \$480,000. The total award amount is \$507,425. OR DEQ will use \$27,425; or 5% of the award amount towards administrative costs.

Matching Funds and Cost-Share Funds

DEQ will use funds authorized to the state under Appendix D of the Volkswagen Consent Decree. These matching funds would be used to maximize the amount of DERA State Funds that Oregon receives.

Funding Partnerships

Sub Awards to Oregon Fleet Owners

Payments will be passed through to Oregon fleet owners as reimbursement for the purpose of purchasing diesel particulate filters, engine repowers or replacement of diesel school buses or heavy duty diesel vehicles. A combination of federal funds and Volkswagen Settlement Appendix D funds allocated to the state of Oregon will be passed through to the fleet owners for no more than the DERA funding limits.

Matching funds for the project that covers the Mandatory Cost Share from project activities, i.e., 75% of bus replacement costs or 60% of engine repowering, are provided by school districts.

The distribution of funding among the technology choices possible will be determined by the choices made by fleet owners based on their evaluation of optimal eligible technologies. For purposes of this budget, we estimated 15 bus replacements, replacement of a dump truck vehicle, a cement mixer, and a back hoe; repower of two heavy duty trucks; and the retrofit of two construction vehicles. An estimated distribution of costs from this projected outcome is shown below.

Activity	Bus Replacement (15)	Dump Truck Replacement (1)	Cement Mixer Replacement (1)	Excavator Replacement (1)	Dump Truck Repower (2)	Cement Mixer Retrofit (2)	All Other Expenses	Totals
Federal EPA	\$280,000.00	\$99,750	\$68,250		\$32,000		27425	\$507,425.00
Voluntary/ Mandatory	\$1,800,000	\$185,250	\$126,750	\$115,000	\$48,000	\$40,000	32525	\$2,347,525
Totals	\$2,080,000	\$285,000	\$195,000	\$115,000	\$80,000	\$40,000	59950	\$2,854,950