

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary State of North Carolina

Lead Agency Authorized to Act on Behalf of the Beneficiary North Carolina 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:	DERA Award Category - FY 2022
Beneficiary's Project ID:	NCDEQ-DERA-FY-2022-01
Funding Request No.	<i>(sequential)</i> 1
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 type="checkbox"/> Appendix D-2 item (specify): _____ Action Type <input checked="" type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): Attachment E
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.

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.]

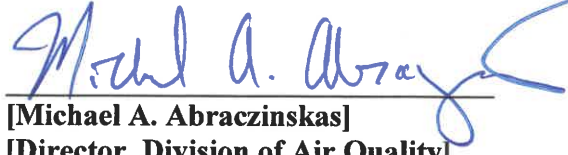
CERTIFICATIONS

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

1. This application is submitted on behalf of Beneficiary ^{North Carolina Department of Environmental Quality} _____, 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: 7/20/22



[Michael A. Abraczinskas]
[Director, Division of Air Quality]

Department of Environmental Quality

[LEAD AGENCY]

for

State of North Carolina

[BENEFICIARY]

Attachment B

Project Budget

Period of Performance: FY 2022 - FY2023				
Budget Category	Total Approved Budget	Share of Total Budget to be Funded by the Trust	Share of Total Budget paid by Federal DERA program	Cost-Share paid by fleet owners
1. Equipment Expenditure	\$3,085,694.00	\$377,119.00	\$611,527.00	\$2,097,048.00
2. Contractor Support <i>(provide list of Approved Contractors as Attachment with approved funding ceilings)</i>	\$0	\$0	\$0	\$0
3. Subrecipient Support <i>(Provide List of Approved Subrecipients or Grant Awardees as Attachment with approved funding ceilings)</i>	\$0	\$0	\$0	\$0
4. Administrative ¹	\$0	\$0	\$0	\$0
Project Totals	\$3,085,694.00	\$377,119.00	\$611,527.00	\$2,097,048.00
Percentage	100%	12.2%	19.8%	68.0%

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

TIMELINE AND MILESTONES:

Task	Date Completed
DERA application submittal due on www.Grants.gov	June 17, 2022
VW D-4 submittal to VW Trustee	August 8, 2022
DERA RFP released, and applications accepted until January 31, 2023	November 1, 2022
State Clean Diesel Award received from EPA	October 3, 2022
NCDEQ selects grant recipients	January 2023 – February 2023
NCDEQ notification of awarded projects to awardees	February 2023
Trustee acknowledges receipt of funding request	Receipt from Trustee
Trustee acknowledges receipt of project certification and funding direction	Transfer Date
NCDEQ sends contracts to awardees for signature	February 2023 – March 2023
NCDEQ submits reports to the Trustee on the status of and expenditures with Mitigation Actions completed and underway.	January 30 and July 30 thereafter
Monitoring and oversight of project implementation	March 2023 to October 2023
Subgrantee submits final reports to with proof of invoice destruction to NCDEQ	September 30, 2023
NCDEQ submits final report to EPA	No later than 90 days after

D-4 Summary Attachment

Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):

The North Carolina Department of Environmental Quality (NC DEQ) requests \$377,119.00 in funds to increase funding for North Carolina's Diesel Emission Reduction Act (DERA) Program by using Environmental Mitigation Trust funds as voluntary match per Section V Table 2 of North Carolina's Phase 2 Beneficiary Mitigation Plan for diesel vehicles replacements and repowers. Projects funded under this request will help achieve significant NOx emission reductions. (Page 9, State of North Carolina Volkswagen Mitigation Plan)

Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):

DEQ anticipates projects in the freight, municipal and private on-road construction/maintenance, school and transit bus sectors, with target fleets including Class 4-8 trucks, construction equipment, refuse trucks, school buses and municipal transit buses. DEQ analyzed a sample of the 2021 VW Phase 1 applications and 2021 DERA applications for projects eligible under DERA programmatic requirements. For this work plan DEQ provides an analysis which includes replacing two refuse haulers, one forklift, one transit bus and three school buses see Attachment D. The DEQ recognizes that the actual number of vehicle replacements completed may vary with regard to location and vehicle type, and that this variability could result in changes to the emission reductions proposed within this work plan.

For this project, DEQ's diesel emission reduction program primary will focus on vehicle replacement projects. Ownership of all vehicles purchased with vehicle replacement projects will remain with the entities that own the vehicles being replaced.

North Carolina's work plan and budget for the FY2022 State DERA grant is attached.

Estimate of Anticipated NOx Reductions (5.2.3):

See Attachment D.

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):

NC Department of Environmental Quality, Division of Air Quality

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

The NC DEQ, as lead agency for the state of North Carolina implementing the Environmental Mitigation Plan, has established a web page on the VW Trust and mitigation actions where documents will be made publicly available, deq.nc.gov/VWsettlement.

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

Maximum funding percentages for selected projects depend on the DERA Eligible Project type, however, maximum funding for any project proposal application is not guaranteed. NC DEQ may partially fund a proposal application by funding a portion of a proposed project. Applicants receiving funding will be notified of the actual amount awarded for their project. Applicants awarded funding have the option to accept or decline the award.

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

The NC Department of Environmental Quality (NC DEQ) will provide detailed reporting on this funding request in two ways:

1. Timely updates to the NC DEQ's Mobile Source Emission Reduction Grants website,
2. Quarterly Reports submitted to the Environmental Protection Agency on the FY 2022 Clean Diesel State Grant, and
3. Semi-annual reporting to the Trustee as required by subparagraph 5.3 of the Environmental Mitigation Trust for State Beneficiaries.

NC DEQ Website

NC DEQ maintains a website describing the NC DEQ's activities associated with the Volkswagen Diesel Emissions Environmental Mitigation Trust for State Beneficiaries. The website may be found here: deq.nc.gov/VWsettlement. Information associated with NC DEQ's VW programs, applications, and application guides, as well as a description of the VW Beneficiary Mitigation Plan, community outreach activities and copies of award decisions will be posted here. This website will also be used to track the status, progress, and results for projects under this funding category.

NCDEQ also maintains a website describing the NC DEQ's activities associated with the Mobile Source Emissions Reduction Grants using EPA Diesel Emission Reduction Act (DERA) grant funding. The website maybe found here: <https://deq.nc.gov/about/divisions/air-quality/motor-vehicles-air-quality/mobile-source-emissions-reduction-grants>. Information associated with NC DEQ's Mobile Source Emissions Reduction Grants, applications, and application guides, and copies of award decisions will be posted here. This website will also be used to track the status, progress, and results for projects under this funding category.

All application materials, reimbursement requests and other required documentation submitted by applicants will be available to the public through the NC DEQ Volkswagen webpage or upon request. Funding recipients' executed contracts for the NC DEQ's Diesel Emission Reduction Act Program are archived in the NC DEQ Grant Management System.

DERA Quarterly Reports

DEQ has and will continue to submit quarterly report to the EPA on the progress of projects under the 2022 Clean Diesel State Grant. These reports include technical details of the individual diesel emission reduction projects (vehicles and equipment being replaced as well as the replacement vehicles and equipment), estimates of emissions reductions, project progress and timelines, and financial reporting.

Semi-Annual Reports to the Trustee

As required by subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries, DEQ will submit a report to the Trustee within 6 months of the first disbursement and thereafter no later than January 30 and July 30 for the preceding 6-month periods. These reports will describe the progress implementing this and any other Eligible Mitigation Action

Attachment D

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

Projected Vehicles	Fuel Type	Estimated Vehicle/Equipment Replacement Cost	Estimated Infrastructure Cost Funded Amount	DERA/VW Vehicle Funded Amount	Total DERA/VW Project Funded Amount	Cost Share Amount	Estimated Total Project Cost	Estimated Annual NOx Emission Reductions
Refuse hauler	Electric	\$662,693	\$41,913	\$275,160	\$317,073	\$387,533	\$704,606	0.05
Short Haul Combination Truck	Diesel	\$104,000	\$0	\$26,000	\$26,000	\$78,000	\$104,000	0.22
Short Haul Combination Truck	Diesel	\$104,000	\$0	\$26,000	\$26,000	\$78,000	\$104,000	0.22
Short Haul Combination Truck	Diesel	\$104,000	\$0	\$26,000	\$26,000	\$78,000	\$104,000	0.22
Short Haul Combination Truck	Diesel	\$104,000	\$0	\$26,000	\$26,000	\$78,000	\$104,000	0.22
Short Haul Combination Truck	Diesel	\$104,000	\$0	\$26,000	\$26,000	\$78,000	\$104,000	0.22
Short Haul Combination Truck	Diesel	\$104,000	\$0	\$26,000	\$26,000	\$78,000	\$104,000	0.22
Short Haul Combination Truck	Diesel	\$104,000	\$0	\$26,000	\$26,000	\$78,000	\$104,000	0.22
Short Haul Combination Truck	Diesel	\$104,000	\$0	\$26,000	\$26,000	\$78,000	\$104,000	0.22
Skid Steer Loader	Diesel	\$368,000	\$0	\$92,000	\$26,000	\$78,000	\$104,000	0.22
Terminal Tractor	Electric	\$290,000	\$30,000	\$114,000	\$144,000	\$176,000	\$320,000	1.01
School Bus Replacements-Diesel	Diesel	\$100,898	\$0	\$25,225	\$25,225	\$75,674	\$100,898	0.06
School Bus Replacements-Diesel	Diesel	\$100,898	\$0	\$25,225	\$25,225	\$75,674	\$100,898	0.06
School Bus Replacements-Diesel	Diesel	\$100,898	\$0	\$25,225	\$25,225	\$75,674	\$100,898	0.06
School Bus Replacements-Diesel	Diesel	\$100,898	\$0	\$25,225	\$25,225	\$75,674	\$100,898	0.06
School Bus Replacements-Diesel	Diesel	\$100,898	\$0	\$25,225	\$25,225	\$75,674	\$100,898	0.06
School Bus Replacements-Diesel	Diesel	\$100,898	\$0	\$25,225	\$25,225	\$75,674	\$100,898	0.06
Marine Engine Retriever	Diesel	\$43,000	\$0	\$17,200	\$17,200	\$25,800	\$43,000	2.47
Total		\$3,005,979	\$71,913	\$908,932	\$980,845	\$2,097,048	\$3,077,892	6.46

Attachment E DERA Option

2022 Diesel Emissions Reduction Act (DERA) State Grants

Work Plan and Budget Narrative Template

INSTRUCTIONS: States and territories applying for 2022 DERA State Grant funds should use this template to prepare their Work Plan and Budget Narrative.

Please refer to the 2021-2022 DERA State Grants Program Guide full program details, eligibility criteria and funding restrictions, and application instructions.

SCOPE OF WORK

The North Carolina Division of Air Quality (DAQ) intends to use the 2022 DERA State Grant Program money to supplement the existing State Diesel Emissions Reduction Grant Program.

The North Carolina Division of Air Quality plans to use the money to fund projects that will include diesel emission reduction solutions for locomotives, marine engines and non-road engines, equipment or vehicles used in construction, cargo handling, agriculture, mining or energy production (including stationary generators and pumps) and idle reduction technologies.

STATE/TERRITORY GOALS AND PRIORITIES:

North Carolina is a very diverse State with varied sources contributing to the air pollution. Specifically, for mobile source diesel emissions, the main sources are locomotives, commercial marine vessels, diesel non-road equipment and on-road diesel heavy-duty vehicles. Below is a table summarizing the statewide nitrogen oxides (NO_x) and fine particulate matter (PM_{2.5}) for these categories. The emissions were obtained from the latest emissions data available, the 2017 National Emissions Inventory (NEI) January 2021 version.

	NO_x (tons/year)	PM_{2.5} (tons/year)
Locomotives	6,790	192
Commercial Marine Vessels	4,395	108
Diesel Non-road Equipment	17,476	1,318
On-Road Diesel Heavy Duty Vehicles	29,755	1,268

For the purposes of this Program, DAQ is focusing on reducing NO_x and PM_{2.5} because the State is currently in maintenance for ozone and particulate matter. Focusing on further reducing NO_x and PM_{2.5} will help DAQ achieve their goals of continuously improving air quality, specifically in the areas that are in maintenance for ozone (NO_x is a precursor for ozone) and particulate matter.

VEHICLES AND TECHNOLOGIES:

The NC Diesel Emissions Reduction Grant (DERG) Program will fund emissions reduction projects for marine engines and non-road engines, equipment and vehicles, and locomotives. Based on the types of eligible projects for funding under the 2022 Diesel Emissions Reduction Grant Program, the following technologies will be considered:

Marine Engines

- Marine shore power connection systems
- Certified diesel engine replacement
- Engine upgrades and remanufacture systems
- Verified exhaust controls
- Cleaner fuels

- Oversees the subgrantee expenditures
- Reviews, for accuracy, and submits subgrantee invoices to the Budget Office for payment
- Maintains the DAQ DERG website, including subgrantee updates and news releases
- Coordinates with the subgrantees throughout the grant process to receive quarterly updates

Environmental Specialist:

- Participates in the grant selection oversight committee meetings

Environmental Specialist (Contract Temporary Employee):

- Quality assures the Grant Administrator reports, emissions reductions calculations and invoice submittals
- Coordinates subgrantee site visits

Mobile Sources Compliance Branch Supervisor (Environmental Program Supervisor):

- Reviews selected grant applications
- Quality assures contract paperwork, quarterly reports and subgrantee invoices for Grant Administrator
- Provides guidance and feedback, as needed

DAQ Budget Officer:

- Reviews and approves for payment all subgrantee invoices
- Prepares all required financial forms and assists with the State procurement process
- Provides monthly financial reports to Grant Administrator for the quarterly reports

NC DEQ Contracts and Purchasing:

- Generates all of the grant contracts for the subgrantees and all contract amendments
- Provides payments to the subgrantees, once payment is approved by the DAQ Budget Officer

NC DEQ Secretary:

- Reviews and approves all grant awards for the State, all grant award letters are signed by the DEQ Secretary.

The current air quality in North Carolina is attainment/maintenance throughout the state and the implementation of these projects will continue to allow for North Carolinians to experience good air quality.

It is anticipated that the following outcomes will occur during the FY2021-2022 DERA award cycle:

Short-term Outcomes

Outcome	Tracking Mechanism
Increase knowledge of diesel emission reduction strategies by subgrant applicants.	Keep interested parties abreast of new diesel emissions technologies through updates to NC DAQ website on success of projects implemented.
Increase knowledge of diesel emission reduction strategies by the NC DAQ grant staff.	NC DAQ staff’s participation in workshops, conferences, site visits, and other interactions.

Medium-term Outcomes

The projects funded by this program will assist subgrantees by providing equipment, vehicles or technology that will be more competitive in the future and by saving diesel fuel and reducing maintenance costs. These metrics will be tracked through subgrantee’s quarterly and final reports.

Long-term Outcomes

Reducing diesel emissions from the legacy fleets will aid North Carolina in its goal of improving the ambient air quality across the State. The cleaner diesel vehicles and equipment results in workers operating in a healthier environment. While this is not easy to track, studies have repeatedly shown the increased health risks for operators from working near diesel engines. Prior results from subgrantees’ final reports show improved health of those working with the cleaner diesel vehicles and equipment. With current ozone standard, the state will need to look at all avenues to maintain reductions in NOx emissions. The State Diesel Emissions Reduction Grant Program is advancing DAQ’s effort to maintain and improve upon the air quality across the State.

Based on the potential types of projects that we may receive through the request for proposal process, DAQ has developed fleet descriptions for the FY2022 cycle. Using that fleet, DAQ used the EPA’s Diesel Emissions Quantifier to estimate the emissions benefits for the FY2022 cycle.

The 2022 example fleet assumes we will fund the replacement of 9 school buses, one all-electric refuse hauler, 10 short-haul trucks, 2 electric yard tractors, 1 piece of port equipment, and 1 marine engine. This example fleet includes \$45,848.00 of funds unallocated during the 2021 RFP. This example fleet is based on the data from the projects funded in previous cycles and represents the diversity of projects submitted by grantees and funded by the selection committees. NCDEQ recognizes that at this point, significant emissions reductions from EV refuse projects are not cost-effective, however in awarding these kinds of projects, DEQ hopes to stimulate interest in these projects to support NC’s transition to clean zero emission heavy-duty equipment.

BUDGET NARRATIVE

2022 Itemized Project Budget

Budget Category	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
			VW Mitigation Trust Funds	Other Funds	
1. Personnel	\$14,954				\$14,954
2. Fringe Benefits	\$6,611				\$6,611
3. Travel	\$2,000				\$2,000
4. Equipment	\$-				\$-
5. Supplies	\$250				\$250
6. Contractual	\$3,241				\$3,241
7. Other	\$537,023	TBD	\$377,119		\$ 914,142
8. Total Direct Charges (sum 1-7)	\$564,079		\$377,119		\$941,198
9. Indirect Charges	\$1,600*				\$1,600
10. Total (Indirect + Direct)	\$565,679		\$377,119		\$942,798
11. Program Income	\$-				\$-

**Indirect cost amount is subject to change after EPA issues rate for 2022-2023.*

Explanation of Budget Framework

- **Personnel - List all staff positions by title. Give annual salary, percentage of time assigned to the project, and total cost for the budget period.**

Scott Albright, Environmental Specialist (annual salary \$48,180) spends about 5% of his time on this grant. Environmental Program Consultant (annual salary \$62,727) will spend 20% of their time on this grant. The combined total will be \$14,954. Please see the SF 424A form and Budget Justification Worksheet for additional details.

- **Fringe Benefits - Identify the percentage used, the basis for its computation, and the types of benefits included.**

For fringe benefits, medical reflects 25% of the annual cost of medical benefits which is \$1,850. Retirement is 24.19% of each staff member's salary added together, and Social Security is 7.65% of each salary added together. The total for all fringe benefits is \$6,611.

- **Travel - Specify the mileage, per diem, estimated number of trips in-State and out-of-State, number of travelers, and other costs for each type of travel.**

Travel is estimated at the cost of the Environmental Program Consultant, Environmental Specialist and/or Environmental Program Supervisor to attend the annual SEDC conference. The location and length of the conference is still undetermined and will impact the cost. Based on previous years, an estimate of total travel costs of \$2,000 is reasonable.

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

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Semi-Annual Reports to the Trustee

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