

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary The District of Columbia

Lead Agency Authorized to Act on Behalf of the Beneficiary Department of Energy and Environment (DOEE)
(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:	Amtrak DC Rail Yard Locomotive Switcher Upgrades
Beneficiary's Project ID:	DC - VWAMTK
Funding Request No.	<i>(sequential)</i> DC - VWAMTK - 001
Request Type: (select one or more)	<input checked="" type="checkbox"/> Reimbursement <input 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): Locomotive Switcher Engine Replacement
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): <small>This request is for reimbursement of administrative expenses incurred in the course of coordinating the Switcher project. Pages 11, 12, 13 and 17 of DC's Beneficiary Mitigation Plan (BMP) outlines how these expenses fit into the overall project goals.</small>	
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): This Mitigation Action Item aims to upgrade up to five Locomotive Switcher Engines in the District of Columbia. The Mitigation Action Item is detailed on Pages 11, 12, and 13 and of DC's BMP. Benefits, including estimated reductions in NOx and PM2.5 are on pages 20 and 23 of DC's BMP. Please find the BMP attached.	
Estimate of Anticipated NOx Reductions (5.2.3): 12.9 tons per year of NOx are expected to be avoided per Switcher replaced. Reductions are summarized in the BMP on pages 18 and 20.	
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): Department of Energy and the Environment (DOEE), District of Columbia Government	
Describe how the Beneficiary will make documentation publicly available (5.2.7.2). Page 10 of DC's BMP describes how documentation will be made publicly available.	
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8). Amtrak (Switcher owner) will be responsible for covering 60% of the cost per switcher. DC's DERA grant and allocated VW Settlement funds jointly cover the remaining 40%.	
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). Letters to the appropriate parties were sent over email on Monday, February 12, 2018.	

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).

Please refer to page 20 of DC's BMP for how this project relates to communities that have historically borne a disproportionate share of the adverse impacts of emissions.

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.]

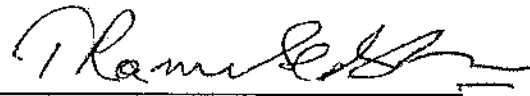
CERTIFICATIONS

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

1. This application is submitted on behalf of Beneficiary The District of Columbia, 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: Jan 6, 2020



[NAME] Rama S. Tangirala

[TITLE] Supervisory Environmental Protection Specialist

Department of Energy and Environment

[LEAD AGENCY]

for

The District of Columbia

[BENEFICIARY]

**ATTACHMENT B
DC - VWAMTK**

Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures

Pursuant to Section 5.2.4 of the Environmental Mitigation Trust Agreement, the District of Columbia Department of Energy and Environment (DOEE) provides the following Eligible Mitigation Action Management Plan.

The milestone dates and yearly budget distributions provided are estimates and are subject to change. DOEE currently plans to replace one Switcher per fiscal year, beginning in Fiscal Year (FY) 2020. DOEE’s fiscal year begins on October 1 of the previous calendar year and ends on September 30 of the year with which it is numbered (for example, FY 2020 began on October 1, 2019 and will end on September 30, 2020.)

Project Implementation Schedule and Milestones

Project: Amtrak DC Rail Yard Locomotive Switcher Upgrades
Project ID: DC - VWAMTK

Period of Performance: October 2018 – September 2024 (FY 2019 – FY 2024)

Milestone	Date
DOEE Planning and Development Begins	October 2018
DOEE Provides Notice of Availability – RFP	April 26, 2019
Applicants Submit Proposals to DOEE	May 28, 2019
DOEE Issues Grant Award Notice to and a purchase order (PO) to Applicant	September 12, 2019
Work Begins on Grant	September 12, 2019
Grantee Submits Invoices for Expenses Incurred	Continuous after September 12, 2019 until close
Grantee Enters into MOA with Amtrak	January 2020
DOEE Submits D-4 to Trustee (with FY19 request)	January 2020
Trustee Acknowledges Receipt of D-4	January 2020
Trustee Approves D-4	January/February 2020
Grantee Issues RFP for Vendors	January 2020
Vendor Contract Awarded	February 15, 2020
Switcher Delivered to vendor for Engine Replacement	March 2020
Switcher Delivered to Amtrak with New Engine	September 1, 2020
Parties Approve Work; Submit Final Report, Close Project for Switcher 1	September 30, 2020
Process starting from contract repeats for Switchers 2, 3, 4, 5 contingent on funding and commitment. One switcher repower annually.	October 1, 2020 – September 30, 2024

TOTAL PROJECT BUDGET – FY 2019–FY 2024
 Amtrak DC Rail Yard Locomotive Switcher Upgrades

Category	Total	Share of Budget Funded by VW Trust	Cost-Share Amtrak	DERA Grant
Equipment	\$6,500,000.00	\$1,976,000.00	\$3,900,000	\$624,000
Grantee Administrative	\$150,000.00	\$120,000.00	\$0	\$30,000
DOEE Administrative	\$182,866.83	\$182,866.83	\$0	\$0
Percent of Equipment Expenditure	100%	30%	60%	10%
Total	\$6,832,866.83	\$2,278,866.83	\$3,900,000	\$654,000

PROJECT BUDGET – FY 2019 (Administrative) – Amtrak DC Rail Yard Locomotive Switcher Upgrades: Draw #1 (DC - VWAMTK – 001)

Category	Total	Share of Budget Funded by VW Trust	Cost-Share Amtrak	DERA Grant
Equipment				
Grantee Administrative				
DOEE Administrative	\$28,866.83	\$28,866.83		
Percent of Equipment Expenditure				
Total	\$28,866.83	\$28,866.83		

PROJECT BUDGET – FY 2020 (Switcher 1 and Administrative) – Amtrak DC Rail Yard
 Locomotive Switcher Upgrades: **Draw #2** (DC - VWAMTK – 002)

Category	Total	Share of Budget Funded by VW Trust	Cost-Share Amtrak	DERA Grant
Equipment	\$1,300,000	\$208,000	\$780,000	\$312,000
Grantee Administrative	\$30,000	\$30,000	0	0
DOEE Administrative	\$35,000	\$35,000	0	0
Percent of Equipment Expenditure	100%	16%	60%	24%
Total	\$1,365,000	\$238,000	\$780,000	\$312,000

PROJECT BUDGET – FY 2021 (Switchers 2 and Administrative) - Amtrak DC Rail Yard
 Locomotive Switcher Upgrades: **Draw #3** (DC - VWAMTK – 003)

Category	Total	Share of Budget Funded by VW Trust	Cost-Share Amtrak	DERA Grant
Equipment	\$1,300,000	\$208,000	\$780,000	\$312,000
Grantee Administrative	\$30,000	\$0	0	\$30,000
DOEE Administrative	35,000	35,000	0	0
Percent of Equipment Expenditure	100%	16%	60%	24%
Total	\$1,365,000	\$243,000	\$780,000	\$342,000

PROJECT BUDGET – FY 2022 (Switcher 3 and Administrative) - Amtrak DC Rail Yard
 Locomotive Switcher Upgrades: **Draw #4 (DC - VWAMTK – 004)**

Category	Total	Share of Budget Funded by VW Trust	Cost-Share Amtrak	DERA Grant
Equipment	\$1,300,000	\$520,000	\$780,000	
Grantee Administrative	\$30,000	\$30,000	0	\$0
DOEE Administrative	\$28,000	\$28,000	0	0
Percent of Equipment Expenditure	100%	40%	60%	0%
Total	\$1,358,000	\$578,000	\$780,000	\$0

PROJECT BUDGET – FY 2023 (Switcher 4 and Administrative) - Amtrak DC Rail Yard
 Locomotive Switcher Upgrades: **Draw #5 (DC - VWAMTK – 005)**

Category	Total	Share of Budget Funded by VW Trust	Cost-Share Amtrak	DERA Grant
Equipment	\$1,300,000	\$520,000	\$780,000	
Grantee Administrative	\$30,000	\$30,000	0	\$0
DOEE Administrative	\$28,000	\$28,000	0	0
Percent of Equipment Expenditure	100%	40%	60%	0%
Total	\$1,358,000	\$578,000	\$780,000	\$0

**PROJECT BUDGET – FY 2024 (Switcher 5 and Administrative) - Amtrak DC Rail Yard
Locomotive Switcher Upgrades: Draw #6 (DC - VWAMTK – 006)**

Category	Total	Share of Budget Funded by VW Trust	Cost-Share Amtrak	DERA Grant
Equipment	\$1,300,000	\$520,000	\$780,000	
Grantee Administrative	\$30,000	\$30,000	0	\$0
DOEE Administrative	\$28,000	\$28,000	0	0
Percent of Equipment Expenditure	100%	40%	60%	0%
Total	\$1,358,000	\$578,000	\$780,000	\$0

Total Project Budget and Projected Trust Allocations

Fiscal Year (Begins October 1)	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	Totals
AMTRAK								
Total Equipment	\$0	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$1,300,000	\$0	\$6,500,000.00
Total Administrative	\$28,866.83	\$65,000	\$65,000	\$58,000	\$58,000	\$58,000	\$0	\$332,866.83
DOEE Admin	\$28,866.83	\$35,000	\$35,000	\$28,000	\$28,000	\$28,000	\$0	\$182,866.83
COG Admin	\$0	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$0	\$150,000
DERA Total Cost-Share	\$0	\$312,000	\$342,000	\$0	\$0	\$0	\$0	\$654,000
DERA Equip Cost-share	\$0	\$312,000	\$312,000	\$0	\$0	\$0	\$0	\$624,000
DERA Admin cost-share	\$0	\$0	\$30,000	\$0	\$0	\$0	\$0	\$30,000
VW Total Cost-share	\$28,866.83	\$273,000	\$243,000	\$578,000	\$578,000	\$578,000	\$0	\$2,278,866.83
VW Equip Cost-Share	\$0	\$208,000	\$208,000	\$520,000	\$520,000	\$520,000	\$0	\$1,976,000
VW Admin Cost-Share	\$28,866.83	\$65,000	\$35,000	\$58,000	\$58,000	\$58,000	\$0	\$302,866.83
Amtrak Equip Cost-Share	\$0	\$780,000	\$780,000	\$780,000	\$780,000	\$780,000	\$0	\$3,900,000
1. Anticipated Annual Amtrak Project Funding to be paid through the Trust	\$28,866.83	\$273,000	\$243,000	\$578,000	\$578,000	\$578,000	\$0	\$2,278,866.83
2. Anticipated Annual Amtrak Cost Share (DERA and AMTRAK)	\$0	\$1,092,000	\$1,122,000	\$780,000	\$780,000	\$780,000	\$0	\$4,554,000
3. Anticipated Total Amtrak Project Cost by Year	\$28,866.83	\$1,365,000	\$1,365,000	\$1,358,000	\$1,358,000	\$1,358,000	\$0	\$6,832,866.83
4. Cumulative Trustee Payments Made To Date Against Amtrak Project	\$0	\$28,866.83	\$301,866.83	\$544,866.83	\$1,122,866.83	\$1,700,866.83	\$2,278,866.83	\$2,278,866.83
5. Eligible Annual Amtrak Project funding to be paid through the Trust	\$28,866.83	\$273,000	\$243,000	\$578,000	\$578,000	\$578,000	\$0	\$2,278,866.83
6. Total Funding Allocated to Beneficiary, inclusive of current action and additional actions, including other projects, by Year	\$0	\$57,378	\$5,381,500	\$320,500	\$640,000	\$640,000	\$640,000	\$7,679,378.04
7. Beneficiary Share of Estimated Funds Remaining in Trust (subtracting Amtrak Project only)	\$8,125,000	\$8,096,133.17	\$7,823,133.17	\$7,580,133.17	\$7,002,133.17	\$6,424,133.17	\$5,846,133.17	\$5,846,133.17
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (DEAL and Amtrak)	\$8,125,000	\$8,067,621.96	\$2,686,121.96	\$2,365,621.96	\$1,725,621.96	\$1,085,621.96	\$445,621.96	\$445,621.96
9. Administrative percent for Amtrak project (out of Total Amtrak VW funds)	1%	4.1%	5.7%	8.2%	10.7%	13.3%	13.3%	13.3%
10. Administrative percent for all projects	1%	2.6%	4.1%	5.6%	7.2%	8.8%	8.8%	8.8%

Row 9 is subject to a total 15% cap; row 10 is subject to a 9% cap based on the BMP.
 These figures are estimates and subject to change.

ATTACHMENT C

Detailed Plan for Reporting on Eligible Mitigation Action Implementation (S.2.11)

Switcher Locomotive Engine Replacement Project ID: DC – VWAMTK

Pursuant to Sections 5.2.11 and 5.3 of the Environmental Mitigation Trust Agreement, DOEE provides this project implementation reporting plan for the Amtrak DC Rail Yard Locomotive Switcher Engine Replacement project undertaken by DOEE's sub-grantee in partnership with Amtrak. This detailed plan for reporting incorporates applicable DOEE sub-grantee reporting requirements as well as DOEE's obligation to comply with the semi-annual reporting requirement contained in Section 5.3 of the Environmental Mitigation Trust Agreement. Sub-grantee will provide the reports as specified below to DOEE. Further, DOEE will provide reports to the U.S. Environmental Protection Agency (EPA) as required for the DERA grant, specified below. The reporting deadlines contained herein are estimates and may be subject to change.

Report	Due
Work Plan (including budget and timeline) from sub-grantee to DOEE	10/15/2019
Quarterly Report #1 from sub-grantee to DOEE	10/15/2019
DERA Quarterly Report from DOEE to EPA	10/31/2019
Quarterly Report #2 from sub-grantee to DOEE	1/15/2020
DERA Quarterly Report from DOEE to EPA	1/31/2020
Semi-Annual Project Report from DOEE to Trustee	1/31/2020
Quarterly Report #3 from sub-grantee to DOEE	4/15/2020
DERA Quarterly Report from DOEE to EPA	4/30/2020
Quarterly Report #4 from sub-grantee to DOEE	7/15/2020
DERA Quarterly Report from DOEE to EPA	7/31/2020
Semi-Annual Project Report from DOEE to Trustee	7/31/2020
Final Report on SW1 from sub-grantee to DOEE	10/15/2020
DERA Quarterly Report from DOEE to EPA	10/31/2020
Quarterly Report #5 from sub-grantee to DOEE	1/15/2021
DERA Quarterly Report from DOEE to EPA	1/31/2021
Semi-Annual Project Report from DOEE to Trustee	1/31/2021
Quarterly Report #6 from sub-grantee to DOEE	4/15/2021
DERA Quarterly Report from DOEE to EPA	4/30/2021
Quarterly Report #7 from sub-grantee to DOEE	7/15/2021
DERA Quarterly Report from DOEE to EPA	7/31/2021
Semi-Annual Project Report from DOEE to Trustee	7/31/2021
Final Report on SW2 from sub-grantee to DOEE	10/15/2021
DERA Quarterly Report from DOEE to EPA	10/31/2021
Quarterly Report #8 from sub-grantee to DOEE	1/15/2021
Semi-Annual Project Report from DOEE to Trustee	1/31/2021
Quarterly Report #9 from sub-grantee to DOEE	4/15/2021
Quarterly Report #10 from sub-grantee to DOEE	7/15/2021

Semi-Annual Project Report from DOEE to Trustee	7/31/2021
Final Report on SW3 from sub-grantee to DOEE	10/15/2021
Quarterly Report #11 from sub-grantee to DOEE	1/15/2021
Semi-Annual Project Report from DOEE to Trustee	1/31/2021
Quarterly Report #12 from sub-grantee to DOEE	4/15/2021
Quarterly Report #13 from sub-grantee to DOEE	7/15/2021
Semi-Annual Project Report from DOEE to Trustee	7/31/2021

Reporting will continue in the pattern set above on a semi-annual schedule to the Trustee from DOEE and a quarterly schedule from sub-grantee to DOEE (includes final reports) for subsequent Switcher repowers until all repower work has been completed. Quarterly reporting to EPA will end in FY21, the anticipated end date of the DERA grant. Extension of grants or additional grants may require additional reporting.

Report Content

Sub-grantee and DOEE reports will contain at a minimum:

1. Summary of all costs expended through the reporting period and to-date
2. Project status and development and implementation accomplishments
3. Any project modifications, including timeline, compared to proposal and work plan

Attachment D:
Project ID: DC – VWAMTK

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

Description	Repower Equipment Estimate
Switcher Locomotive Repower (Switcher 1) – Tier 4 or better	\$1,300,000
Switcher Locomotive Repower (Switcher 2) – Tier 4 or better	\$1,300,000
Switcher Locomotive Repower (Switcher 3) – Tier 4 or better	\$1,300,000
Switcher Locomotive Repower (Switcher 4) – Tier 4 or better	\$1,300,000
Switcher Locomotive Repower (Switcher 5) – Tier 4 or better	\$1,300,000
Total	\$6,500,000

Cost estimates are based on the proposal from selected sub-grantee for the Switcher repower. Selected sub-grantee has worked on previous Switcher repowers and this previous work assisted in informing their estimate.

Attachment E: DERA Option

Pursuant to Appendix D-2 and Section 5.2.12 of the Environmental Mitigation Trust Agreement, the project (Project ID: DC - VWAMTK) associated with this Funding Request involves use of the DERA Option. DOEE's DERA work plans and awards are attached.

FISCAL YEAR 2019

STATE CLEAN DIESEL GRANT PROGRAM

WORK PLAN AND BUDGET NARRATIVE TEMPLATE

INSTRUCTIONS: States and territories applying for FY 2019 DERA State Clean Diesel Grant Program funding must use this template to prepare their Work Plan and Budget Narrative.

Please refer to the FY 2019 STATE CLEAN DIESEL PROGRAM INFORMATION GUIDE for full Program details, eligibility criteria and funding restrictions, and application instructions.

SUMMARY PAGE

Project Title: District of Columbia FY 2019 State DERA Grant

Project Manager and Contact Information

Organization Name: Department of Energy and Environment

Project Manager: Rama S. Tangirala

Mailing Address: 1200 First Street, NE, 5th Floor, Washington, DC 20002

Phone: 1-202-535-2989

Fax:

Email: rama.tangirala@dc.gov

Project Budget Overview:

Table 1: Project Budget Overview

	FY 2019
EPA Base Allocation	\$ 315,344
State or Territory Voluntary Matching Funds (if applicable)	\$ 315,344
EPA Match Incentive (Bonus) (if applicable)	\$ 157,672
Mandatory Cost-Share	\$ 896,250
TOTAL Project Cost	\$ 1,684,610
Other Leveraged Funds	\$

Project Period

October 1, 2019 – September 30, 2021

Summary Statement

The District of Columbia's (District) Department of Energy and Environment/Air Quality Division (DOEE/AQD) is proposing to spend the DERA Grant funds to repower one switcher locomotive with an EPA Certified Tier 4 Generator-Set (GenSet) or cleaner engine. DOEE is also proposing to set up a rebate program with the remaining funds for tailpipe emission reduction retrofits, which include idle reduction and exhaust control technologies for onroad diesel vehicles. The District will be using a portion of its Volkswagen Settlement Funds as a State Voluntary Match for the FY 2019 DERA grant.

SCOPE OF WORK

DOEE will work with Amtrak to procure and install one replacement engine on a switcher locomotive operating between Union Station and the Ivy City Railyard to help reduce diesel emissions in the District. DOEE will spend the remainder of the DERA Grant towards a rebate program that will fund tailpipe emission reduction retrofits such as idle reduction and exhaust control technologies.

STATE/TERRITORY GOALS AND PRIORITIES:

The District is currently in attainment with national ambient air quality standards (NAAQS) for particulate matter (PM_{2.5}), carbon monoxide (CO), lead, sulfur dioxide (SO₂), and nitrogen dioxide (NO₂). DOEE is in the process of requesting that EPA redesignate the region as attainment for the 2008 ozone NAAQS. EPA is currently reviewing the redesignation request and maintenance plan. The District is in marginal nonattainment for the 2015 ozone NAAQS. Therefore, there is need to find additional reductions of oxides of nitrogen (NO_x) emissions, a precursor for ozone, including from sources of diesel emissions to attain the 2015 and maintain the 2008 ozone NAAQS.

According to the 2014 National Emissions Inventory, 6,518 tons of NO_x were emitted from the mobile sector in the District, and of that total, 3,909 tons were emitted from diesel vehicles. The mobile sector also accounted for 383 tons of PM_{2.5} emissions, with diesel vehicles emitting 226 tons per year.

Diesel emissions contain NO_x, PM_{2.5}, and air toxics. Because of the negative impacts on public health of PM_{2.5} and NO_x, including respiratory impacts such as asthma and cardiac-related problems, EPA has set health-based NAAQS for these pollutants. Air toxics have well-known negative effects on human health as well. In the District, asthma affects nearly 15.5 percent of children under 18, compared to a national rate of less than 9 percent. The proposed projects will immediately reduce diesel emissions and improve public health since emission reductions from heavy-duty diesel engines can achieve some of the most significant NO_x reductions among the clean diesel options.

VEHICLES AND TECHNOLOGIES:

Switcher Locomotive Engine Replacement

Amtrak will replace the engine of one switcher locomotive with a Tier 4 GenSet or cleaner engine to reduce emissions from diesel exhaust. The switcher locomotives operate daily at both Union Station and the Ivy City Railyard and move or “switch” rail cars around the railyards. The switcher locomotives are considered a certified eligible vehicle as defined in Section VIII.B of the DERA Program Guide.

Tailpipe Emission Reduction Retrofits

The tailpipe emission reduction retrofits rebate will be open to public and private entities. The vehicles selected will meet EPA’s eligibility criteria under VIII.C.1 and VIII.C.4 of the DERA program guide. Funding will be available for most technologies with the exception of biodiesel for exhaust control technologies.

ROLES AND RESPONSIBILITIES:

Switcher Locomotive Engine Replacement

DOEE will issue a sub-grant to administer the repowering or replacement of one qualifying Amtrak diesel switcher. The sub-grantee will develop the scope, deliverables, schedule, activities, and funding of the project at the approval of DOEE. Amtrak will then work, with consultation with the sub-grantee, to administer the project, request proposals from vendors, select manufacturers of equipment and execute contracts. DOEE will verify that the project is eligible. Amtrak must provide proof that the switcher has been in use for at least 1,000 hours annually; the sub-grantee will oversee the project and will provide quarterly reports on the status of the project. Upon successful completion of the repowering or replacement, Amtrak must scrap the old engine and provide documentation to the sub-grantee and DOEE. When the repowered switcher is returned to Washington, DC, DOEE will inspect the switcher to verify that the work was performed. DOEE will reimburse the sub-grantee once the sub-grantee submits an invoice to DOEE along with the necessary documentation.

TIMELINE AND MILESTONES:

Table 2: Switcher Replacement – Timeline and Milestones

Action	Schedule
Grant Award	October 1, 2019
Publish Request for Application (RFA)	December 1, 2019
Award sub-grantee	February 1, 2020
Sub-grantee to sign MOU with Amtrak	March 15, 2020
Procurement process	May 31, 2020
Engine replacement	July 1, 2021
Track performance (inspections)	August 15, 2021
Project completion	September 30, 2021

Tailpipe Emission Reduction Retrofits

DOEE will fund the tailpipe emission reduction retrofits project through a rebate program. Any interested entity can apply for the funds on a first-come first-served basis and will get reimbursed once DOEE is supplied with an invoice. The entity will also have to supply proof of purchase and an application.

Table 3: Tailpipe Emission Reduction Retrofits – Timeline and Milestones

Action	Schedule
Grant Award	October 1, 2019
Develop Rebate program	December 31, 2019
Advertise project to potential users	February 28, 2020
Entities submit applications	August 2, 2020
All rebates must be completed	September 30, 2020

DERA PROGRAMMATIC PRIORITIES:

The District is considered a priority area under EPA’s 2018 National Priority Area List for the 2008 ozone NAAQS, 1997 PM_{2.5} NAAQS, and National Air Toxics Assessment (NATA). The District is also designated as nonattainment under both the 2008 and 2015 Ozone NAAQS, although it will likely be redesignated to maintenance for the 2008 Ozone NAAQS. Thus it is a priority to focus on the reduction of NO_x and PM_{2.5} emissions. Both the switcher engine replacement and tailpipe emission reduction retrofit projects will immediately reduce diesel emissions and improve public health.

The cost effectiveness of the switcher locomotive repower was calculated to be approximately \$100,471/ton of NO_x reduction based on a cost of \$1.3 million and an emission reduction of 12.9 tons per year (tpy). The cost effectiveness for the tailpipe emission reduction retrofits range from \$101,000/ton to \$235,000/ton of NO_x reduction depending on the type of retrofit.

The locomotive switcher replacement also meets one of the programmatic priorities by being located in a railyard. This location is considered an area that bears a disproportionate amount of air pollution under the programmatic priorities under VIII.D of DERA’s Program Guide.

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

Goal 1 of EPA’s 2018-2022 Strategic Plan is “Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety”. The proposed projects will replace a heavy-duty diesel switcher locomotive engine with a new Tier 4 Genset or cleaner, and install tailpipe emission reduction retrofits on up to approximately 300 vehicles¹, both of which will emit much lower levels of NO_x and PM_{2.5}. As a result, local and regional air pollution will be reduced and health improved.

The outputs of DOEE’s proposed projects include one switcher locomotive engine replacement and the installation of idle reduction and/or exhaust control technologies. The number of vehicles

¹ 300 assumes that all rebate participants choose the least costly option (i.e., idling reduction technologies) although later we assume a split in rebates between all options for budgeting purposes.

retrofitted through the tailpipe program is uncertain at this point as it is open to any interested entity, but we assumed up to 32 vehicles with idle reduction and 9 vehicles with exhaust control technologies.

Both the switcher locomotive engine replacement and the tailpipe emission reduction retrofits will result in environmentally beneficial outcomes, both short- and long-term. As a result of the proposed projects, in the short term the District will have decreased daily and weekly NO_x and PM_{2.5} emissions and thus decreased exposure to these pollutants of residential communities located near the railyards and tourists visiting Union Station. The proposed projects will reduce NO_x and PM_{2.5} emissions over the course of years, helping to reduce the formation of ozone in the District and to maintain the status as attainment for fine particulates. In the long term, the reduction of diesel emissions resulting from the proposed project will help to reduce the asthma rate in the District. The outcomes for both projects can be seen in the table below.

Table 4: Emission Reduction Benefits

Output	Outcome	
	NO _x Reduced (tpy)	PM _{2.5} Reduced (tpy)
One GenSet Replacement	12.9	0.29
41 Tailpipe Emission Reduction Retrofits	1.7	0.07
Total Reduction	14.6	0.40


Emissions benefits for the switcher locomotive engine replacement were calculated using EPA's Diesel Emissions Quantifier. The emissions benefits calculations for the tailpipe emission reduction retrofits were calculated using the Argonne National Laboratory's Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool.

In addition to emission reductions, these projects will result in reduced fuel consumption. The switcher engine replacement will result in savings of about 12,300 gallons of diesel annually for the single replacement. Idle reduction control technologies could save up to 40.1 gallons of diesel annually per retrofitted vehicle, or potentially up to 1,644 gallons for the total of 41 vehicle retrofits.

SUSTAINABILITY OF THE PROGRAM:

Both the switcher locomotive engine replacement and tailpipe emission control projects will be permanent installations, and thus will continue to reduce harmful emissions throughout their useful life.

DOEE will have a press event with Amtrak upon the completion of the project. DOEE will also send out periodic tweets on both the switcher locomotive and tailpipe emission control projects, which will be posted to DOEE's website, doee.dc.gov.

	U.S. ENVIRONMENTAL PROTECTION AGENCY Cooperative Agreement	GRANT NUMBER (FAIN): 96367801	DATE OF AWARD
		MODIFICATION NUMBER: 0	08/16/2019
		PROGRAM CODE: DS	MAILING DATE
		TYPE OF ACTION	08/23/2019
		NEW	ACH#
		PAYMENT METHOD:	30122
		ASAP	
RECIPIENT TYPE:	Send Payment Request to:		
State	N/A		
RECIPIENT:	PAYEE:		
District of Columbia Govt of dba Department of Energy and Environment 1200 First Street, NE Washington, DC 20002 EIN: 53-6001131		District of Columbia Govt of dba Department of Energy and Environment 1200 First Street, NE Washington, DC 20002	
PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST	
Rama Seshu Tangirala 1200 First Street, NE Washington, DC 20002 E-Mail: rama.tangirala@dc.gov Phone: 202-535-2989	Alison Riley 1650 Arch Street, 3AD20 Philadelphia, PA 19103-2029 E-Mail: Riley.Alison@epa.gov Phone: 215-814-2095	Matthew Creedon Grants and Audit Management Branch, 3MD70 E-Mail: Creedon.Matthew@epa.gov Phone: 215-814-5174	
PROJECT TITLE AND DESCRIPTION			
DOEE State DERA 2019 This agreement will provide assistance to the District of Columbia Department of Energy and the Environment (DOEE) in its efforts to reduce diesel emissions and exposure throughout the District of Columbia. DOEE will work with Amtrak to procure and install one replacement engine on a switcher locomotive operating between Union Station and the Ivy City Railyard to help reduce diesel emissions in the District. DOEE will spend the remainder of the DERA Grant towards a rebate program that will fund tailpipe emission reduction retrofits such as idle reduction and exhaust control technologies. The projects will reduce emissions of diesel particulate matter and other pollutants such as nitrogen oxides, carbon monoxide and hydrocarbons.			
BUDGET PERIOD	PROJECT PERIOD	TOTAL BUDGET PERIOD COST	TOTAL PROJECT PERIOD COST
10/01/2019 - 09/30/2021	10/01/2019 - 09/30/2021	\$1,684,610.00	\$1,684,610.00
NOTICE OF AWARD			
Based on your Application dated 06/18/2019 including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA) hereby awards \$473,016. EPA agrees to cost-share 28.08% of all approved budget period costs incurred, up to and not exceeding total federal funding of \$473,016. Recipient's signature is not required on this agreement. The recipient demonstrates its commitment to carry out this award by either: 1) drawing down funds within 21 days after the EPA award or amendment mailing date; or 2) not filing a notice of disagreement with the award terms and conditions within 21 days after the EPA award or amendment mailing date. If the recipient disagrees with the terms and conditions specified in this award, the authorized representative of the recipient must furnish a notice of disagreement to the EPA Award Official within 21 days after the EPA award or amendment mailing date. In case of disagreement, and until the disagreement is resolved, the recipient should not draw down on the funds provided by this award/amendment, and any costs incurred by the recipient are at its own risk. This agreement is subject to applicable EPA regulatory and statutory provisions, all terms and conditions of this agreement and any attachments.			
ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)		AWARD APPROVAL OFFICE	
ORGANIZATION / ADDRESS		ORGANIZATION / ADDRESS	
US EPA Region 3, 3MD70 1650 Arch Street Philadelphia, PA 19103-2029		U.S. EPA, Region 3 Air and Radiation Division, 3AD00 1650 Arch Street Philadelphia, PA 19103-2029	
THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY			
Digital signature applied by EPA Award Official for John J. Krakowiak - Acting Assistant Regional Administrator Lisa White - Award Official delegate			DATE 08/16/2019

EPA Funding Information

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	\$	\$ 473,016	\$ 473,016
EPA In-Kind Amount	\$	\$	\$ 0
Unexpended Prior Year Balance	\$	\$	\$ 0
Other Federal Funds	\$	\$	\$ 0
Recipient Contribution	\$	\$	\$ 0
State Contribution	\$	\$ 315,344	\$ 315,344
Local Contribution	\$	\$	\$ 0
Other Contribution	\$	\$ 896,250	\$ 896,250
Allowable Project Cost	\$ 0	\$ 1,684,610	\$ 1,684,610

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.040 - State Clean Diesel Grant Program (B)	Diesel Emissions Reduction Act of 2010 codified at 42 U.S.C. 16131 et seq Consolidated Appropriations Act of 2019 (PL 116-6)	2 CFR 200 2 CFR 1500 and 40 CFR 33

Fiscal									
Site Name	Req No	FY	Approp. Code	Budget Organization	PRC	Object Class	Site/Project	Cost Organization	Obligation / Deobligation
	1903MA0062	19	E4	03M2	000AH4	4123			473,016
									473,016

FISCAL YEAR 2018

STATE CLEAN DIESEL GRANT PROGRAM

WORK PLAN AND BUDGET NARRATIVE TEMPLATE

INSTRUCTIONS: States and territories applying for FY 2018 DERA State Clean Diesel Grant Program funding must use this template to prepare their Work Plan and Budget Narrative.

Please refer to the FY 2017-2018 STATE CLEAN DIESEL PROGRAM INFORMATION GUIDE for full Program details, eligibility criteria and funding restrictions, and application instructions.

SUMMARY PAGE

Project Title: District of Columbia FY 2018 State DERA Grant

Project Manager and Contact Information

Organization Name: District of Columbia Department of Energy and Environment (DOEE)

Project Manager: Dr. Rama Seshu Tangirala

Mailing Address: 1200 First Street, NE, Fifth Floor, Washington, DC 20002

Phone: 1-202-535-2989

Email: rama.tangirala@dc.gov

Project Budget Overview:

Table 1: Project Budget Overview

	FY 2017*	FY 2018
EPA Base Allocation	\$	\$ 274,053
State or Territory Matching Funds (if applicable)	\$	\$ 309,000
EPA Match Incentive (if applicable)	\$	\$ 137,027
Mandatory Cost-Share	\$	\$ 968,750
TOTAL Project	\$	\$ 1,688,830

*FY 2017 budget is only for states and territories with open FY 2017 State DERA grants

Project Period

October 1, 2018 – September 30, 2020

Summary Statement

The District of Columbia's (District) Department of Energy and Environment (DOEE) is proposing to use the DERA Grant funds to repower one switcher locomotive with an EPA Certified Tier 4 Generator-Set (GenSet) engine. DOEE is also proposing to set up a rebate program with the remaining funds for tailpipe emission reduction retrofits, which include idle reduction and exhaust control technologies for onroad diesel vehicles. District will be using a portion of its Volkswagen Settlement Funds as a State Voluntary Match for the FY 2018 DERA grant.

SCOPE OF WORK

DOEE will work with Amtrak to procure and install one replacement engine on a switcher locomotive operating between Union Station and the Ivy City Railyard to help reduce diesel emissions in the District. DOEE will spend the remainder of the DERA Grant towards a rebate program that will fund tailpipe emission reduction retrofits such as idle reduction and exhaust control technologies.

STATE/TERRITORY GOALS AND PRIORITIES:

The District is currently in attainment with national ambient air quality standards (NAAQS) for particulate matter (PM_{2.5}), carbon monoxide (CO), lead, sulfur dioxide (SO₂), and nitrogen dioxide (NO₂). The District is in marginal nonattainment for the 2015 ozone NAAQS. Based on the improved air quality, DOEE requested EPA to redesignate the region as attainment for the 2008 ozone NAAQS. EPA is in the process of approving the District's redesignation request and maintenance plan for the old 2008 ozone NAAQS. Therefore, there is need to find additional reductions of oxides of nitrogen (NO_x) emissions, a precursor for ozone, including from sources of diesel emissions to attain the 2015 and maintain the 2008 ozone NAAQS.

According to the 2014 National Emissions Inventory, 6,518 tons of NO_x were emitted from the mobile sector in the District, and of that total, 3,909 tons were emitted from diesel vehicles. The mobile sector also accounted for 383 tons of PM_{2.5} emissions, with diesel vehicles emitting 226 tons per year.

Diesel emissions contain NO_x, PM_{2.5}, and air toxics. Because of the negative impacts on public health of PM_{2.5} and NO_x, including respiratory impacts such as asthma and cardiac-related problems, EPA has set health-based NAAQS for these pollutants. Air toxics have well-known negative effects on human health as well. In the District, asthma affects nearly 15.5 percent of children under 18, compared to a national rate of less than 9 percent. The proposed projects will immediately reduce diesel emissions and improve public health since emission reductions from heavy-duty diesel engines can achieve some of the most significant NO_x reductions among the clean diesel options.

VEHICLES AND TECHNOLOGIES:

Switcher Locomotive Engine Replacement

Amtrak will replace the engine of one switcher locomotive with a Tier 4 GenSet engine to reduce emissions from diesel exhaust. The switcher locomotives operate daily at both Union Station and the Ivy City Railyard and move or "switch" rail cars around the railyards. The switcher locomotives are considered a certified eligible vehicle as defined in Section VIII.B of the DERA Program Guide.

Tailpipe Emission Reduction Retrofits

The tailpipe emission reduction retrofits rebate will be open to public and private entities. The vehicles selected will meet EPA's eligibility criteria under VIII.C.1 and VIII.C.4 of the DERA program guide. Funding will be available for most technologies with the exception of biodiesel for exhaust control technologies.

ROLES AND RESPONSIBILITIES:

Switcher Locomotive Engine Replacement

DOEE and Amtrak will develop a Memorandum of Understanding on the scope, deliverables, schedule, activities, and funding of the project. Amtrak will then work, with consultation to DOEE, to administer the project, request proposals from vendors, select manufacturers of equipment and execute contracts. DOEE will verify that the project is eligible. Amtrak must provide proof that the switcher has been in use for at least 1,000 hours annually; DOEE will oversee the project, while Amtrak will provide monthly reports on the status of the project. Upon successful completion of the new engine replacement, Amtrak must scrap the old engine and provide documentation to DOEE. When the repowered switcher is returned to Washington, DC, DOEE will inspect the switcher to verify that the work was performed. DOEE will reimburse Amtrak once Amtrak submits an invoice to DOEE along with the necessary documentation.

TIMELINE AND MILESTONES:

Table 2: Switcher Replacement – Timeline and Milestones

Action	Schedule
Sub grant Award	September 15, 2019
Develop MOU	November 30, 2019
Procurement process	February 28, 2020
Engine replacement	August 31, 2020
Track performance (inspections)	September 15, 2020
Project completion	September 30, 2020

Tailpipe Emission Reduction Retrofits

DOEE will fund the tailpipe emission reduction retrofits project through a rebate program. Any interested entity can apply for the funds on a first-come first-served basis and will get reimbursed once DOEE is supplied with an invoice. The entity will also have to supply proof of purchase and an application.

Table 3: Tailpipe Emission Reduction Retrofits – Timeline and Milestones

Action	Schedule
Grant Award	October 1, 2018
Develop Rebate program	November 30, 2019
Advertise project to potential users	January 31, 2020
Entities submit applications	April 30, 2020
All rebates must be completed	September 30, 2020

DERA PROGRAMMATIC PRIORITIES:

The District is considered a priority area under EPA’s 2018 National Priority Area List for the 2008 O3 NAAQS, 1997 PM_{2.5} NAAQS, and NATA. The District is also designated as nonattainment under both the 2008 and 2015 Ozone NAAQS, although it will likely be redesignated to maintenance for the 2008 Ozone NAAQS. Thus it is a priority to focus on the reduction of NO_x and PM_{2.5} emissions. Both the switcher engine replacement and tailpipe emission reduction retrofit projects will immediately reduce diesel emissions and improve public health.

The cost effectiveness of the switcher locomotive repower was calculated to be approximately \$100,471/ton of NO_x reduction based on a cost of \$1.3 million and an emission reduction of 12.9 tons per year (tpy). The cost effectiveness for the tailpipe emission reduction retrofits range from \$101,000/ton to \$235,000/ton of NO_x reduction depending on the type of retrofit.

The locomotive switcher replacement also meets one of the programmatic priorities by being located in a railyard. This location is considered an area that bears a disproportionate amount of air pollution under the programmatic priorities under VIII.D of DERA’s Program Guide.

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

Goal 1 of EPA’s 2018-2022 Strategic Plan is “Core Mission: Deliver real results to provide Americans with clean air, land, and water, and ensure chemical safety”. The proposed projects will replace a heavy-duty diesel switcher locomotive engine with a new Tier 4 Genset, and install tailpipe emission reduction retrofits on up to approximately 300 vehicles¹, both of which will emit much lower levels of NO_x and PM_{2.5}. As a result, local and regional air pollution will be reduced and health improved.

The outputs of DOEE’s proposed projects include one switcher locomotive engine replacement and the installation of idle reduction and/or exhaust control technologies. The number of vehicles retrofitted through the tailpipe program is uncertain at this point as it is open to any interested entity, but we assumed up to 74 vehicles with idle reduction and 8 vehicles with exhaust control technologies.

¹ 300 assumes that all rebate participants choose the least costly option (i.e., idling reduction technologies) though later we assume a split in rebates between all options for budgeting purposes.

Both the switcher locomotive engine replacement and the tailpipe emission reduction retrofits will result in environmentally beneficial outcomes, both short- and long-term. As a result of the proposed projects, in the short term the District will have decreased daily and weekly NO_x and PM_{2.5} emissions and thus decreased exposure to these pollutants of residential communities located near the railyards and tourists visiting Union Station. The proposed projects will reduce NO_x and PM_{2.5} emissions over the course of years, helping to reduce the formation of ozone in the District and to maintain the status as attainment for fine particulates. In the long term, the reduction of diesel emissions resulting from the proposed project will help to reduce the asthma rate in the District. The outcomes for both projects can be seen in the table below.

Table 4: Emission Reduction Benefits

Output	Outcome	
	NO _x reduced (tpy)	PM _{2.5} Reduced (tpy)
One GenSet Replacement	12.9	0.33
78 Tailpipe Emission Reduction Retrofits	2.5	0.2
Total Reduction	15.4	0.53

Emissions benefits for the switcher locomotive engine replacement were calculated using EPA's Diesel Emissions Quantifier. The emissions benefits calculations for the tailpipe emission reduction retrofits were calculated using the Argonne National Laboratory's Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool.

In addition to emission reductions, these projects will result in reduced fuel consumption. The switcher engine replacement will result in savings of about 12,300 gallons of diesel annually for the single replacement. Idle reduction control technologies could save up to 194 gallons of diesel annually per retrofitted vehicle, or potentially up to 14,356 gallons for the total of 74 vehicle retrofits.

SUSTAINABILITY OF THE PROGRAM:

Both the switcher locomotive engine replacement and tailpipe emission control projects will be permanent installations, and thus will continue to reduce harmful emissions throughout their useful life.

DOEE will have a press event with Amtrak upon the completion of the project. DOEE will also send out periodic tweets on both the switcher locomotive and tailpipe emission control projects, which will be posted to DOEE's website, doee.dc.gov.

	U.S. ENVIRONMENTAL PROTECTION AGENCY Assistance Amendment	GRANT NUMBER (FAIN): 96360201	DATE OF AWARD 08/08/2019
		MODIFICATION NUMBER: 1	MAILING DATE 08/08/2019
		PROGRAM CODE: DS	ACH# 30122
		TYPE OF ACTION No Cost Amendment	
RECIPIENT TYPE: State	Send Payment Request to: N/A		
RECIPIENT: District of Columbia Govt of dba Department of Energy and Environment 1200 First Street, NE Washington, DC 20002 EIN: 53-6001131	PAYEE: District of Columbia Govt of dba Department of Energy and Environment 1200 First Street, NE Washington, DC 20002		
PROJECT MANAGER Cecily Beall 1200 First Street, NE Washington, DC 20002 E-Mail: cecily.beall@dc.gov Phone: 202-535-2626	EPA PROJECT OFFICER Alison Riley 1650 Arch Street, 3AD20 Philadelphia, PA 19103-2029 E-Mail: Riley.Alison@epa.gov Phone: 215-814-2095	EPA GRANT SPECIALIST Matthew Creedon Grants and Audit Management Branch , 3MD70 E-Mail: Creedon.Matthew@epa.gov Phone: 215-814-5174	
PROJECT TITLE AND EXPLANATION OF CHANGES District of Columbia FY 2018 State DERA Grant This amendment extends the budget and project periods to September 30, 2020 to provide assistance to the District of Columbia, Department of Energy and the Environment, in its efforts to reduce diesel emissions and exposure throughout the District of Columbia. ALL TERMS AND CONDITIONS REMAIN THE SAME.			
BUDGET PERIOD 10/01/2018 - 09/30/2020	PROJECT PERIOD 10/01/2018 - 09/30/2020	TOTAL BUDGET PERIOD COST \$1,688,830.00	TOTAL PROJECT PERIOD COST \$1,688,830.00
NOTICE OF AWARD Based on your Application dated 06/15/2018 including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA) hereby awards \$. EPA agrees to cost-share <u>24.34%</u> of all approved budget period costs incurred, up to and not exceeding total federal funding of \$411,080. Recipient's signature is not required on this agreement. The recipient demonstrates its commitment to carry out this award by either: 1) drawing down funds within 21 days after the EPA award or amendment mailing date; or 2) not filing a notice of disagreement with the award terms and conditions within 21 days after the EPA award or amendment mailing date. If the recipient disagrees with the terms and conditions specified in this award, the authorized representative of the recipient must furnish a notice of disagreement to the EPA Award Official within 21 days after the EPA award or amendment mailing date. In case of disagreement, and until the disagreement is resolved, the recipient should not draw down on the funds provided by this award/amendment, and any costs incurred by the recipient are at its own risk. This agreement is subject to applicable EPA regulatory and statutory provisions, all terms and conditions of this agreement and any attachments.			
ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)		AWARD APPROVAL OFFICE	
ORGANIZATION / ADDRESS US EPA Region 3, 3MD70 1650 Arch Street Philadelphia, PA 19103-2029		ORGANIZATION / ADDRESS U.S. EPA, Region 3 Air and Radiation Division, 3AD00 1650 Arch Street Philadelphia, PA 19103-2029	
THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY			
Digital signature applied by EPA Award Official Jacqueline Guerry - Branch Chief Grants and Audit Management Branch			DATE 08/08/2019

Table A - Object Class Category (Non-construction)	Total Approved Allowable Budget Period Cost
1. Personnel	\$0
2. Fringe Benefits	\$0
3. Travel	\$0
4. Equipment	\$0
5. Supplies	\$1,000
6. Contractual	\$0
7. Construction	\$0
8. Other	\$1,687,830
9. Total Direct Charges	\$1,688,830
10. Indirect Costs: % Base	\$0
11. Total (Share: Recipient 75.66 % Federal 24.34 %.)	\$1,688,830
12. Total Approved Assistance Amount	\$411,080
13. Program Income	\$0
14. Total EPA Amount Awarded This Action	\$0
15. Total EPA Amount Awarded To Date	\$411,080