

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

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 Ohio, 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:

7/10/19

Harri A. Stevenson Harri A. Stevenson, Director

[NAME]

[TITLE]

Ohio Environmental Protection Agency

[LEAD AGENCY]

for

State of Ohio

[BENEFICIARY]

[SAMPLE ATTACHMENT B - USE OF THIS FORMAT IS NOT MANDATORY]

PROJECT MANAGEMENT PLAN
PROJECT SCHEDULE AND MILESTONES

Milestone	Date
Lead Agency Provides Notice of Availability of Mitigation Action Funds	
Project Sponsor Submits Proposal to Lead Agency	
Lead Agency Provides Written Approval of Project Sponsor's Proposal	
Lead Agency Incorporates Project Sponsor's Proposal into Mitigation Plan	
Trustee Acknowledges Receipt of Project Certification and Funding Direction	
Trustee Allocates Share of State Funds for Approved Project	
Lead Agency Directs Funding (Advance Funded Projects)	
Project Sponsor Obtains Cost Share, Notifies or Certifies to Lead Agency	
Project Sponsor Enters into Contracts, Purchase Orders, etc. - Start	
Project Sponsor Enters into Contracts, Purchase Orders, etc. - Complete	
Project Installation(s) – Start	
Project Installation(s) – Complete	
Project Sponsor provides detailed invoices for all claimed project costs, documentation for emission reduction estimates, required certification documents to Lead Agency to support direction to Trustee for Payment (Reimbursement, Direct-to-Vendor) or final accounting (Forward Funded Projects)	-
Lead Agency completes review and certifies payment direction to Trustee (Reimbursement)	
Trustee Acknowledges Receipt of Direction for Payment(s) (Advance Funded, Reimbursement)	-
Project Sponsor Certifies Project Completion	
Lead Agency Reports Project Completion	

PROJECT BUDGET

Period of Performance: _____				
Budget Category	Total Approved Budget	Share of Total Budget to be Funded by the Trust	Cost-Share, if applicable (Entity #1)	Cost-Share, if applicable (Entity #2)
1. Equipment Expenditure	\$	\$	\$	\$
2. Contractor Support <i>(Provide List of Approved Contractors as Attachment with approved funding ceilings)</i>	\$	\$	\$	\$
3. Subrecipient Support <i>(Provide List of Approved Subrecipients or Grant Awardees as Attachment with approved funding ceilings)</i>	\$	\$	\$	\$
4. Administrative ¹	\$	\$	\$	\$
Project Totals	\$	\$	\$	\$
Percentage	%	%	%	%

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

PROJECTED TRUST ALLOCATIONS:

	2017	2018	2019	2020	2021
1. Anticipated Annual Project Funding Request to be paid through the Trust	\$	\$	\$	\$	\$
2. Anticipated Annual Cost Share	\$	\$	\$	\$	\$
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$	\$	\$	\$	\$
4. Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation	\$	\$	\$	\$	\$
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	\$	\$	\$	\$	\$
6. Total Funding Allocated to for Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$	\$	\$	\$	\$
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$	\$	\$	\$	\$
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 7 minus line 6)	\$	\$	\$	\$	\$

**Beneficiary Eligible Mitigation Action Certification
Supplemental Information (Attachments A, B, C, D and E)
Beneficiary: State of Ohio
Lead Agency: Ohio Environmental Protection Agency
In support of Funding Request No. 2**

**ATTACHMENT A
Funding Request and Direction**

Eligible Mitigation Action Type Appendix D-2 item (specify): 4 Ferries/Tugs, and 10 Diesel Emission Reduction Act (DERA) Option.

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

Ohio's BMP filed May 31, 2018 allocates \$19 million to the replacement or repower of non-road/off-road diesel fleets and equipment, including specifically \$2,000,000 for tugboats and ferries. Ohio's BMP laid out Ohio EPA's intention to use approximately \$804,482 in DERA FFY 2017 and 2018 state allocation funds matched with approximately \$1,500,000 from Ohio's portion of the VW Mitigation to pay a portion of the engine component costs in a unique two-for-one tugboat replacement project. Because VW funding normally covers engine replacements but not entire vessel replacements for tugs and ferries, Ohio EPA and The Great Lakes Towing Company sought and received approval from US EPA for the project through the DERA Option. Ohio EPA Ohio's DERA FFY 17 workplan was approved by US EPA to provide 40% of the engine component costs to replace eight ancient single engine tugboats operating with uncontrolled (tier 0) emissions in Ohio's Lake Erie ports with four new twin engine tugboats using a new motor/generator unit (Foss diesel electric hybrid system) to achieve tier 3 emission standards. Subsequent to publication of the BMP, US EPA approved Ohio's DERA FFY18 workplan with a modification requested by the Company to use a different and more efficient diesel-electric hybrid technology (Logan FlexaDrive system) on three of the four new tugs, with additional DERA and Trust funding. These tugboats are based and operate primarily in the harbors of Ashtabula, Cleveland, Conneaut and Toledo, in counties that have been identified in Ohio's BMP as first or second priority for receiving funding based primarily on air quality concerns, concentrations of people in densely populated urban areas who have historically been disproportionately affected by the pollutants in diesel exhaust, and where VW and affiliated vehicles with illegal defeat devices were registered.

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

A contract was originally executed between Ohio EPA and the Great Lakes Towing Company on 2/7/18 for an initial grant of \$1,482,865 approved in the DERA FFY17 workplan, to provide 40% of the anticipated engine components for the four new tugs, to be paid with a combination of \$384,332 from Ohio EPA's DERA FFY17 state allocation from USEPA, and \$1,098,533 from Ohio's Trust funds. The Company committed to provide 60% of the engine components for the four new tugs, for \$2,224,297, plus the remaining costs of constructing the new vessels.

That contract was amended and executed on 7/12/18 to increase the size of the grant award by \$748,000 to cover 40% of the engine component costs for the more expensive Logan FlexaDrive diesel electric hybrid technology on three of the four new tugs. This new technology provided additional

emission reduction benefits and also considerably lower operating costs for the new tugs. **The current approved grant to Great Lakes Towing is \$2,231,665 to cover 40% of the engine components of all four new tugs** (one with the originally approved Foss diesel electric hybrid technology, and three with the approved, more expensive FlexDrive diesel electric hybrid technology). **Total federal (DERA) share of the project is now \$804,482**, broken out as \$384,332 from Ohio's 2017 DERA state allocation, plus \$1,890 in unspent funds from another DERA 2017 Ohio project that US EPA approved reallocating to the tugboat project, plus \$418,260 from Ohio's 2018 DERA state allocation. **The remainder of the grant to Great Lakes Towing (\$2,231,665 total, minus \$804,482 DERA share) is \$1,427,183 to be paid from Ohio's Trust allocation, along with \$99,903 or 7% for Ohio EPA's administrative costs to oversee this multi-year project, for a total of \$1,527,086 from the Trust.** This was allocated originally as \$1,098,533 from Ohio's Trust funds pledged as match for the FY17 DERA funds, plus an additional \$328,650 from Ohio's Trust funds pledged as match for Ohio's FY18 DERA funds. The Company's commitment was increased to still provide 60% of the engine component costs (\$3,348,127) of the project as modified, along with the remaining costs of constructing the four new vessels.

A copy of Ohio's US EPA-approved DERA 2018 workplan is attached. Ohio EPA and the company executed a thirty-six month contract, with a project period to run through October 30, 2021 to allow the time needed for construction of four new vessels. Ohio EPA authorized the Company to initiate purchasing after receiving acceptable documentation that they are using a competitive procurement process. The project is well underway and on schedule. The *Ohio*, first of the four new tugs, launched in December 2018 for sea trials and was christened at the National Museum of the Great Lakes in Toledo on June 21, 2019. US EPA approved an alternate disposition for the old tug *Ohio* to be placed on permanent exhibit at the Museum after the engines had been decommissioned in accordance with DERA and Trust program requirements. Ohio EPA program staff conducted a site visit to the Great Lakes Towing Company's Cleveland shipyard on February 4, 2019 to observe construction on the second and third new tugs (Hull 6503, the tug *Michigan*, and Hull 6504, the tug *Pennsylvania*.) Program staff conducted another site visit to the shipyard February 12, 2019 to observe decommissioning and engine destruction of two of the eight old vessels, the *California* and the *Maine*. Photo documentation has been provided to US EPA in Ohio's DERA quarterly reports. The second new tug *Michigan* is scheduled to be commissioned at the Cleveland shipyard on July 22, 2019, and construction of the fourth new tug began in May, 2019.

As the Company has achieved project milestones, Ohio EPA verified progress made and invoices submitted for reimbursement. Ohio EPA approved an initial payment of \$325,258 from DERA funds on October 23, 2018. A second reimbursement request of \$459,024 from the remaining DERA funds was authorized and paid on June 25, 2019. Additional invoices Ohio EPA authorizes for reimbursement will be paid from Trust funds for the remainder of the project, along with Ohio EPA's allowable administrative costs.

Ohio's Beneficiary Mitigation Plan designates a total of \$2 million (approximately 2.7% of its allocation) in Trust funds for tugboat and ferry projects. This request is for \$1,527,086 in Trust funds. Ohio EPA is continuing to recruit tug and ferry projects and expects to award another approximately \$600,000 for projects in this category in the 2019 and/or 2020 Ohio grant cycles. The Projected Trust Allocations Table in Attachment B includes this anticipated additional funding request for tugs and ferries.

Ohio's Beneficiary Mitigation Plan estimates our administrative costs at \$5.05 million, or 7% of the state's total allocation. This request includes **\$99,903 (7% of \$1,427,183) for administrative costs**, which will be itemized in the required semi-annual reports to the Trustee in terms of staff hours, equipment and travel costs incurred in reviewing and overseeing implementation of this tugboat replacement project. Ohio EPA's administrative costs related to this project began with preparation and submittal of Ohio's FFY 2017 and FFY 2018 DERA state allocation workplans and quarterly reports, preparation and submittal of Ohio's Beneficiary Mitigation Plan in May 2018 and continued with active oversight of new vessel construction and old engine decommissioning in 2018 and 2019. Ohio EPA gave a presentation on the project to the Midwest Clean Diesel Initiative Steering Committee at US EPA Region 5 in Chicago April 25, 2019, and at the Green Marine GreenTech Conference in Cleveland June 6, 2019. The attached copy of Ohio EPA's presentation includes multiple photos of new tug construction and old engine decommissioning for this project.

Estimate of Anticipated NOx Reductions (5.2.3)

Ohio EPA used US EPA's Diesel Emission Quantifier (DEQ) tool to estimate annual emission reduction benefits to be achieved by the project as modified in the DERA FFY 2018 workplan to be 393.187 tons, broken out as follows: 32.767 tons of NOx, 0.516 tons of PM_{2.5}, 0.294 tons of HC, 5.910 tons of CO, and 353.700 tons of CO₂. These tugs are operating in harbors adjacent to densely populated residential, commercial and industrial neighborhoods in Ashtabula, Cleveland, Conneaut and Toledo.

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

The Ohio Environmental Protection Agency.

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

The Ohio Environmental Protection Agency, as the lead agency for the State of Ohio implementing the Beneficiary Mitigation Plan, is committed to maintaining and making publicly available all documentation submitted in support of the funding requests 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. Ohio EPA is subject to Ohio public records requirements in chapter 149 of the Ohio Revised Code, and also to requirements in Ohio Revised Code Section 125.112 that state agencies post all grant awards above \$25,000 on a public-facing website.

Ohio EPA has established a webpage on the VW Settlement and mitigation actions, <https://epa.ohio.gov/oeef/#131365122-vw-mitigation-grants>. This site includes Ohio's Beneficiary Mitigation Plan; public comments received during Plan development and Ohio EPA's response; short descriptions of all projects selected for funding to date; and a chart of Ohio planned allocations by sector and amounts awarded. To facilitate public record and file review requests, Ohio EPA is also preparing the selected grant applications for posting to the Agency's online searchable eDocument database at <https://epa.ohio.gov/dir/publicrecords#lt-112012639-edocument-search>. For each annual grant application cycle Ohio EPA is offering, the VW program web site also includes the Request for Proposals, grant application guidelines; slides and recordings from webinars for prospective grant applicants; posted questions and answers compiled from email and telephone inquiries received by Ohio

EPA during the grant application cycle. For the already completed 2018 grant cycle, the VW program web site includes a [rank ordering of all 117 applications](#) received by cost effectiveness of the projected emission reductions. The 2019 application cycle opened on June 3, 2019 and will deadline on August 2, 2019.

During development of Ohio's draft Beneficiary Mitigation Plan in 2016, Ohio EPA issued news releases and sent an initial email announcement inviting comments to 20,355 addresses from all the Agency's mailing lists. From that effort, Ohio EPA developed and currently maintains an electronic listserv, open to the public, to communicate news, events, and information specifically about Mitigation Trust Fund and other diesel emission reduction grant application opportunities and awarded projects. The listserv currently includes contact information for more than 4,300 individuals. On October 23, 2018, Ohio EPA issued a news release and emailed this list of stakeholders to announce the first 21 fleet projects awarded grants from Ohio's Mitigation Trust Fund. This information is also shared through partner organizations such as the Ohio School Boards Association, Ohio Public Transit Association, regional planning agencies, Clean Fuels Ohio (Ohio's US DOE Clean Cities affiliate), the Midwest Clean Diesel Initiative coordinated by US EPA Region 5 in Chicago, and the national [VW Settlement Clearinghouse](#) and [VW Settlement state and local programs website](#) maintained by NASEO and NACAA.

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

Ohio will provide up to 40% of the engine component costs for four new tugboats under this DERA Option project, using a combination of Ohio's Mitigation Trust Funds and Ohio's DERA FFY17 and FFY18 state clean diesel allocations, as outlined above. The recipient Great Lakes Towing Company is providing 60% of the engine component costs, and all the remaining costs of construction of the four new tugboats.

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

On February 23, 2018, Ohio EPA provided notice, via letter and email, of availability of Mitigation Action Funds to all the parties named in 4.2.8, as well as the Wright-Patterson Air Force Base (WPAFB) Civil Engineer Group, the WPAFB Environmental Branch, both in Dayton, and the U.S. Army Corps of Engineers Great Lakes and Ohio River Division in Cincinnati. The notification to the U.S. Fish and Wildlife Service was copied to the Ottawa National Wildlife Refuge in Oak Harbor, Ohio. Notification to the U.S. Forest Service was copied to the Wayne National Forest headquarters in Nelsonville, Ohio. Notification to the National Park Service was copied to the Cuyahoga Valley National Park office in Brecksville, Ohio. The notice included a summary description of the Volkswagen Settlement including links to Appendix D-2 and Ohio's at-that-time Draft Beneficiary Mitigation Plan with a listing of Eligible Mitigation Actions, an explanation of how Ohio EPA would evaluate grant applications, and instructions to sign up for notification about implementation of Ohio's BMP, funding opportunities and application guidelines for the program in Ohio.

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 exposures of children and adults living and working around harbors in Ashtabula, Cleveland, Conneaut and Toledo where these tugboats operate. The counties where these harbors are located (Ashtabula, Cuyahoga and Lucas) have all been designated as priority for receiving Environmental Mitigation Funds based on the following considerations:

- air quality (Ohio counties of concern due to nonattainment of national air quality standards for ozone and PM_{2.5});
- historical levels of diesel emissions;
- the location of concentrated sources of air pollution such as distribution centers, multimodal centers, ports, rail and bus terminals and airports;
- the counties where the most VW vehicles equipped with defeat devices were registered in Ohio; and
- county overlays using U.S. EPA's *EJScreen: Environmental Justice Screening and Mapping Tool*.

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
US EPA approval of Ohio DERA FFY2017 state clean diesel allocation funding for the project. Workplan was approved in June, 2017.	CY 2017 Q3
Project included in Ohio EPA draft VW Beneficiary Mitigation Plan released for public comment, 12/8/17	CY 2017 Q4
Execution of initial grant contract between Ohio EPA and The Great Lakes Towing Company 2/7/18, authorization to proceed.	CY 2018 Q1
Company submits scope change request to US EPA and Ohio EPA to change technology on three of the four new tugboats. Construction underway on first new tugboat.	CY 2018 Q1
Project with scope change is included in Ohio Beneficiary Mitigation Plan filed with VW Trustee 5/31/2018	CY 2018 Q2
US EPA approval of Ohio DERA FFY2018 state clean diesel allocation funding for the project. Workplan was approved in June, 2018.	CY 2018 Q3
Execution of amended grant contract between Ohio EPA and The Great Lakes Towing Company increasing the amount of project funding, 7/12/18	CY 2018 Q3
Ohio EPA presents project to Controlling Board of Ohio General Assembly with request for spending authority, 8/6/18. Work is underway on all four new tugboats.	CY 2018 Q3
Company submits first invoice for equipment and labor for work underway on first two new tugboats (Hulls 6502 and 6503), 10/1/18.	CY 2018 Q4
Controlling Board of the Ohio General Assembly approves DERA and VW spending authority for the tugboat project, 10/15/18.	CY 2018 Q4
Ohio EPA approves first project invoice, paid with \$345,458 in DERA funding 10/23/18	CY 2018 Q4
First new tugboat (Hull 6502) is registered as the tug <i>Ohio</i> and launched for sea trials. Old tug <i>Ohio</i> is delivered to the National Museum of the Great Lakes in Toledo for alternate disposition and conversion to an exhibit. Lead and asbestos remediation underway on second tug prior to engine decommissioning. Construction underway on second and third new tugs (Hulls 6503 and 6504), and steel and equipment ordered for the fourth new tug (Hull 6505)	CY 2018 Q4
Ohio EPA conducts site visits to the Great Lakes Shipyard in Cleveland to observe new tug construction 2/4/19 and old tug engine decommissioning 2/12/19.	CY 2019 Q1
Ohio EPA gives public presentations about the project to Midwest Clean Diesel Initiative at US EPA Region 5 in Chicago 4/25/19 and Green Marine GreenTech conference in Cleveland 6/6/19. Company submits second invoice for equipment and labor underway on three tugboats. Ohio EPA approves \$459,024 payment with remaining DERA funds for equipment and	CY 2019 Q2

labor underway on three remaining tugs. New tug <i>Ohio</i> christened and old tug <i>Ohio</i> dedicated as exhibit at National Museum of the Great Lakes in Toledo 6/21/19.	
Ohio EPA submits D-4 request for the project to VW Trustee. Second tug <i>Michigan</i> to be christened at the Great Lakes Shipyard in Cleveland 7/22/19. Work continues on construction of third and fourth new tugs, and engine decommissioning on old tugs. First reimbursement of project expenses from VW funds.	CY 2019 Q3
Work completed, anticipated launch and invoice submittal on third new Tug <i>Pennsylvania</i> . Work continues on fourth new tug, and engine decommissioning.	CY 2019 Q4
Work continues on fourth new tug, and engine decommissioning.	CY 2020 Q1
Work to be completed with anticipated launch of fourth new tug, engine decommissioning completed and invoice submittal	CY 2020 Q2
All project work completed.	CY 2020 Q3
Ohio EPA reports to Trustee on status of and expenditures with Mitigation Actions completed and underway	Within 6 months of first disbursement; January 30 and July 30 thereafter

PROJECT BUDGET

	Period of Performance for Great Lakes Towing project V18F-001: January 2018 – December 2020			
Budget Category	Total Approved Budget	Share of Total Budget to be Funded by the Trust	Share of Total Budget to be Funded from OH DERA funds	Cost Share, Paid by Vessel Owners
Equipment Expenditure (100% of engine components for 4 vessels in Approved DERA FFY2017 workplan)	\$3,707,792	\$1,098,533	\$384,332	\$2,224,927
Equipment Expenditure (100% of additional/alternative engine components for 3 of the four vessels in Approved DERA FFY2018 workplan) after US EPA approved modification to use a different diesel electric hybrid technology for these three vessels	\$1,870,110	\$328,650	\$418,260	\$1,123,200
Reallocation of \$1,890 in unspent DERA FFY17 funds from another project were reallocated to the tugboat project when US EPA approved Ohio's FFY18 DERA workplan	\$1,890		\$1,890 unspent DERA 2017 funds reallocated to the tugboat project in Ohio's FFY18 DERA workplan.	
Contractor Support	\$0	\$0	\$0	\$0
Subrecipient Support	\$0	\$0	\$0	\$0
Administrative ¹	\$99,903	\$99,903	\$0	\$0
Project Totals	\$5,679,695	\$1,527,086	\$804,482	\$3,348,127
Percentage	100%	27%	14%	59%

¹Subject to Appendix D-2 15% administrative cap. Ohio BMP caps administrative at 7%.

PROJECTED TRUST ALLOCATIONS

	2019	2020	2021
1. Anticipated Annual Project Funding Request to be paid through the Trust	\$1,527,086	\$472,914 for tugs and ferries	
2. Anticipated Annual Cost Share	\$3,348,127 by Tug company plus \$804,482 DERA funds totals \$4,152,609	\$709,371	
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$5,679,695	\$1,182,285	
4. Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation	\$10,700,000		
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	\$1,527,086	\$472,914	
6. Total Funding Allocated to Beneficiary, including of Current Action by Year (line 4 plus line 5)	\$12,227,086	\$472,914	
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$64,602,522.67	\$63,075,436.67	
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Actions (line 7 minus line 5)	\$63,075,436.67	\$62,602,522.67	

ATTACHMENT C

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

The Ohio Environmental Protection Agency will provide detailed reporting on this Category 4 tugboat engine replacement project in two ways:

- (1) Timely updates to Ohio EPA's Volkswagen Mitigation Grant webpage, <https://epa.ohio.gov/oee/#131365122-vw-mitigation-grants>; and
- (2) Ohio's semiannual reporting obligation to Wilmington Trust (the "Trustee").

Ohio EPA maintains a VW Environmental Mitigation Trust specific webpage that has been designed to support public access and limit burden for the public. The Agency is committed to maintaining and making publicly available all documentation submitted in support of the funding requests 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. Ohio EPA is subject to Ohio public records requirements in [chapter 149 of the Ohio Revised Code](#), and also to requirements in [Ohio Revised Code Section 125.112](#) that state agencies post all grant awards above \$25,000 on a public-facing website. These laws outline best practices for public access to records, and exemptions in the case of confidential business information and personally identifiable information meeting exemption criteria under the Ohio Public Records Law.

None of the information requested or received by Ohio EPA in the Diesel Mitigation Trust Fund grant program meets the criteria under Ohio law for a trade secret exemption. To the limited extent information is submitted to Ohio EPA that meets exemption criteria under Ohio public records law, Ohio EPA will maintain that information as confidential.

To facilitate public record and file review requests, Ohio EPA is preparing the selected grant applications for posting to the Agency's online searchable eDocument database at <https://epa.ohio.gov/dir/publicrecords#lt-112012639-edocument-search>. All documentation submitted by grant recipients in support of the funding requests and all records supporting all expenditures of Eligible Mitigation Action funds will be posted to this searchable eDocument database, subject to applicable laws governing the publication of confidential business information and personally identifiable information. Records will be retained until the termination date of the Environmental Mitigation Fund or by retention schedules determined by the State Records Program under [Ohio Revised Code section 149.333](#), whichever is longer.

Subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries details Ohio's reporting obligations. Ohio EPA shall, in the next semiannual report following the Trustee's approval of this request, describe the progress implementing this Eligible Mitigation Action that will include a summary of all costs expended on the Eligible Mitigation Action through the reporting date. The report will also include a complete description of the status, development, implementation (including project schedule and milestone updates), and any modification to this Eligible Mitigation Action.

ATTACHMENT D

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

Tug Boat Replacement Project

Grant Applicant	New Tug Fuel Type	Number of Tugs	Quoted New Tug Cost	Awarded New Tug Cost and %
The Great Lakes Towing Company DERA FFY2017	diesel electric hybrid	4	\$926,791 (engine components only)	\$370,716 (40% of engine components, to be split between Trust and DERA funds.)
The Great lakes Towing Company DERA FFY2018	Modification of diesel electric hybrid system	(3 of the four tugs above)	Additional \$623,370 per tug for more expensive engine components after modification was approved.	\$249,348 (40% of incremental cost increase to engine components, to be split between Trust and DERA funds)

Grant applicant Great Lakes Towing provided quotes from vendors and installers of the various engine components. These price quotes will soon be posted with each selected grant application to Ohio EPA's online searchable eDocument database at <https://epa.ohio.gov/dir/publicrecords#lt-112012639-edocument-search>.

ATTACHMENT E: DERA Option (5.2.13)

FISCAL YEAR 2018

OHIO STATE CLEAN DIESEL GRANT PROGRAM

WORK PLAN AND BUDGET NARRATIVE

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: Ohio State Clean Diesel Grant Program

Project Manager and Contact Information

Organization Name: Ohio Environmental Protection Agency

Project Manager: Carolyn Watkins

Mailing Address: PO Box 1049, Columbus, OH 43216-1049

Phone: 614-644-3768

Fax: 614-752-0727

Email: carolyn.watkins@epa.ohio.gov

Project Budget Overview:

	FY 2017*	FY 2018
EPA Base Allocation	\$270,411	\$278,840
State or Territory Matching Funds (if applicable) VW DERA Option	\$1,098,533	\$328,650
EPA Match Incentive (if applicable)	\$ 135,205	\$139,420
Mandatory Cost-Share	\$ 2,288,149	\$1,123,200
TOTAL Project	\$ 3,792,298	\$1,870,110

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

Project Period

October 1, 2018 – September 30, 2019

Summary Statement

Ohio EPA proposes to use the FY 2018 funds to support a modification requested by Great Lakes Towing submitted 3/27/18 to Region 5 and Ohio EPA for the tug boat replacement project already underway with FY 2017 funding. The project funds 40% of engine component costs to replace eight aging tug boats with unregulated emissions, with four new tugs. The company is proposing a different diesel-electric hybrid technology for three of the four new tugs, which is expected to result in additional emission reduction benefits. Ohio EPA also requests to reallocate \$1,890 in remaining FY 2017 funds from a completed school bus replacement project to the modified tug boat project. Past DERA State Clean Diesel Program expenditures for the tug boat project and for school bus retrofits and replacements in Ohio are posted at <http://epa.ohio.gov/Portals/42/documents/FedFundSumForDERAProjsInOhio%202017%20jan18.pdf>.

SCOPE OF WORK

[This section is a discussion of the state's or territory's plan to develop and implement grant, rebate, and/or loan programs and how these programs meet state or territory goals as they relate to the reduction of diesel emissions.]

The scope of work should contain a detailed project description, including the following categories and information.]

STATE/TERRITORY GOALS AND PRIORITIES: *[A description of the air quality within the state or territory, the quantity of air pollution produced by the diesel fleet in the state or territory, and the primary sectors (e.g. highway, marine vessels, construction equipment) that make up the state's or territory's diesel fleet (both public and private).]*

Based upon the 2014 National Emissions Inventory, the diesel fleet in Ohio contributes 7,268 tons of PM_{2.5} emissions annually, of which 1,245 tons originate in the counties targeted for federal funds (Ashtabula, Cuyahoga, Lake, Lorain and Lucas Counties). Statewide, non-road diesel equipment accounts for 2,962 tons, on-road diesel heavy duty vehicles account for 3,043 tons, on-road diesel light duty vehicles account for 119 tons, commercial marine vessels account for 41 tons, locomotives account for 1,103 tons, and aircraft account for 245 tons. With respect to the targeted counties, non-road diesel equipment accounts for 439 tons, on-road diesel heavy duty vehicles account for 574 tons, on-road diesel light duty vehicles account for 19 tons, commercial marine vessels account for 30 tons, locomotives account for 183 tons, and aircraft account for 31 tons. Please note this does not include emissions from point sources (operations at individual facilities). Data for marine vessels, locomotives and aircraft includes all types of fuels although it is expected that the majority of those are diesel.

While the PM_{2.5} air quality in Ohio continues to improve from historical levels, areas of Ohio continue to struggle in meeting health-based air quality standards as USEPA continues to lower those standards. Currently Ohio is not meeting the PM_{2.5} annual standard in Cuyahoga and Lorain Counties. PM_{2.5} levels tend to be highest in the urban and industrialized areas of Columbus, Cincinnati, and Cleveland, along with the counties surrounding those areas.

Based upon the 2014 National Emissions Inventory, the commercial marine fleet in Ohio contributes 1,566 tons of NO_x emissions annually, of which 1,130 tons originate in the counties targeted for federal funds (Ashtabula, Cuyahoga, Lake, Lorain and Lucas Counties).

While the ozone air quality in Ohio continues to improve from historical levels, areas of Ohio continue to struggle in meeting health-based air quality standards as US EPA continues to lower those standards. NO_x emissions contribute to the formation of ozone. On April 30, 2018, U.S. EPA designated fifteen Ohio counties as nonattainment for the 2015 eight-hour ozone standard. As a result, additional strategies will be necessary to achieve further emission reductions in these counties. Ohio EPA designated these counties as First Priority for eligible mitigation actions to be funded from Ohio's allocation under the Volkswagen settlement, in the state's Beneficiary Mitigation Plan that was submitted to the VW Trustee 5/31/18. Ozone levels tend to be highest

in the urban and industrialized areas of Columbus, Cincinnati, and Cleveland, and their surrounding counties.

In 2005, Ohio EPA Director Joe Koncelik received approval from the Ohio General Assembly to create the Ohio Clean Diesel School Bus Fund, earmarking a portion of state civil penalties to protect young children, the population segment most vulnerable to adverse health effects from the harmful pollutants in diesel exhaust. According to US EPA, 24 million American children ride a school bus every day, spending an average of 90 minutes each weekday in a school bus. According to the Ohio Department of Education, 1.3 million children in Ohio ride school buses.

That decision to focus our efforts on children riding school buses has been reaffirmed by three subsequent Ohio EPA directors and recognized with 2008 Leadership Awards from the Midwest Clean Diesel Initiative to both Joe Koncelik and Ohio EPA. Over the past decade, Ohio EPA has directed \$5.85 million in state funds, augmented with \$4.05 million in DERA and ARRA state clean diesel allocation funds, to cleaning up aging diesel school buses. To date, we have awarded more than \$9.2 million in 216 grants to school districts and county developmental disability programs and one commercial provider of school bus services to Ohio school districts, to:

- retrofit emission controls such as diesel particulate filters, diesel oxidation catalysts, and closed crankcase filters onto 2,625 school buses;
- install direct-fired heaters onto 1,037 school buses to reduce engine idling and fuel consumption; and
- pay a portion of the engine component costs to replace 44 aging diesel buses with new clean diesel buses.

Ohio EPA used the Diesel Emissions Quantifier to estimate that these efforts have resulted in annual reductions of more than 117 tons of pollutants (PM 2.5, carbon monoxide, NO_x and hydrocarbons). These benefits will continue to accrue as long as these school buses remain in service.

Ohio EPA has also encouraged Ohio entities to take advantage of other funding opportunities to reduce diesel emissions, such as US EPA's DERA competitive grants, the Federal Transit Administration, the US Department of Energy's Clean Cities program and alternative fuel incentives, and occasional Supplemental Environmental Projects in enforcement cases.

In 2009-2010, Ohio EPA assisted the Ohio Department of Transportation and the Ohio Department of Development in estimating emissions benefits for Ohio clean diesel project applications funded through the Federal Highway Administration's Congestion Mitigation and Air Quality (CMAQ) program. In 2011, the Ohio General Assembly assigned Ohio EPA direct responsibility to administer Ohio's Diesel Emission Reduction Grant (DERG) program in partnership with ODOT. These CMAQ-funded grants are available to public sector fleets and private sector fleets applying through a public-private partnership, and to diesel fleets in all transportation sectors. In the four DERG grant cycles Ohio EPA has administered between 2012-2017, 89 projects were funded for more than \$47 million, resulting in an estimated annual

emission reduction of more than 1,787 tons of air pollutants (fine particulates and nitrogen oxides). Specifically, these last four cycles of DERG grants have been awarded to:

- replace 139 school buses with clean diesel, 37 with propane and 4 with CNG;
- install direct fired heaters for idle reduction onto 115 school buses;
- repower 3 locomotives, retrofit 61 locomotives with electric layover heating systems and install 33 plug-in stations for idle reduction;
- repower 18 marine engines in 6 tug boats on the Ohio River;
- replace 150 diesel trucks with clean diesel, 196 with CNG and 6 with propane;
- install one CNG fueling station;
- install 154 electrified spaces at truck stops along interstate highways in Ohio, as well as 2 power stations/hybrid trailer hookups;
- replace 18 transit buses with clean diesel, 74 with CNG and 2 with zero emission hydrogen fuel cells;
- replace 5 diesel shuttle buses with propane;
- replace 11 diesel transit trolleys with clean diesel;
- replace one piece of road construction equipment; and
- replace the diesel engines in two airport snowblowers.

Ohio EPA is currently distributing a one-time allocation of \$5 million in state funds for grants supporting a portion of the cost differential to replace heavy duty (class 7 and 8) diesel trucks and buses with those fueled with CNG, LNG or propane. To date, this [Alternative Fuel Vehicle \(AFV\) Grant program](#) has supported 43 new school buses and 114 new trucks used for freight handling, recycling, refuse collection, snow removal and road maintenance.

Ohio EPA will continue to direct available CMAQ funding and funds from the new Volkswagen Mitigation Trust to support similar diesel emission reduction projects. We are pleased to have the new VW Mitigation Trust Fund opportunity to reduce emissions from vessels and cargo handling equipment in Lake Erie ports that we have been unable to address with CMAQ funds. Ohio EPA updated the DERA option language on pages 14-15 of Ohio's final [Beneficiary Mitigation Plan](#) about the tugboat project described below, to include FY 18 DERA funding.

VEHICLES AND TECHNOLOGIES: *[A description of the eligibility, number, types and typical use, and ownership of vehicles, engines, and/or equipment targeted for emission reductions. Eligibility of vehicles is defined in Section VIII.B of the Program Guide. A description of all verified and/or certified technologies to be used or funded by the applicant. Eligibility of technologies is defined in Section VIII.C of the Program Guide.]*

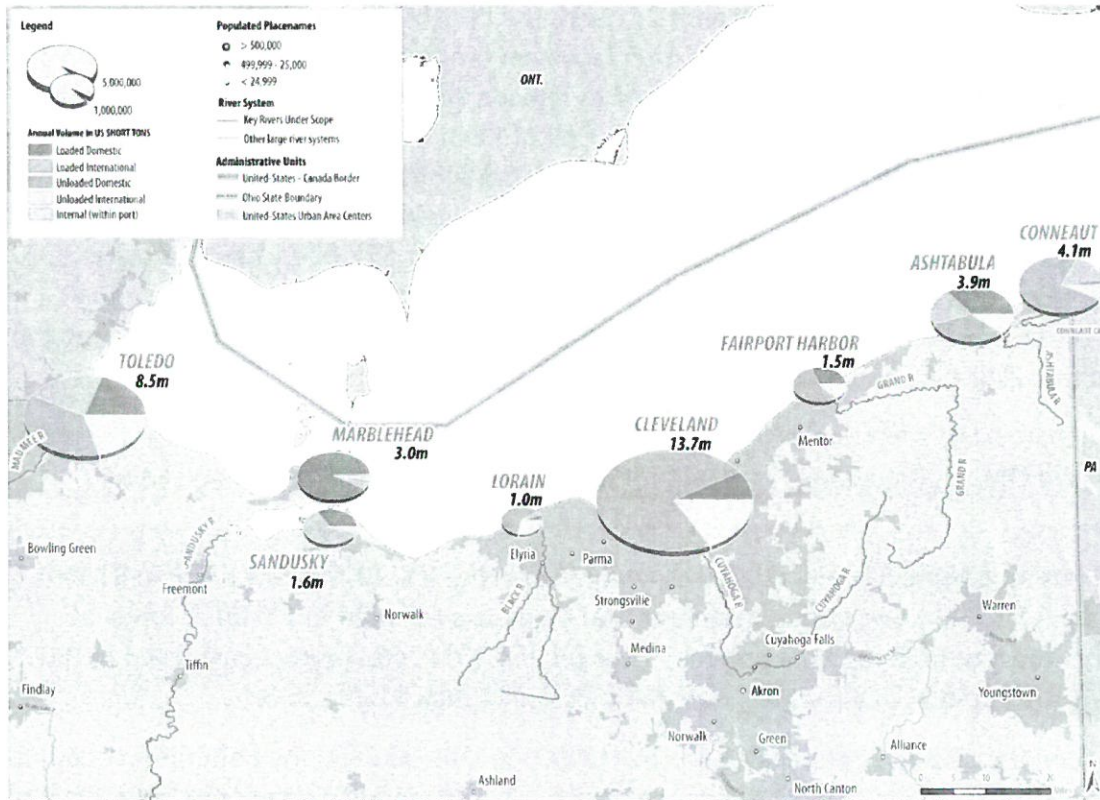
Ohio EPA received approval to use its FFY17 DERA state allocation, matched with Volkswagen Mitigation Trust funds, for 40% of the engine component costs to replace eight 1899-1931 era tug boats, each with a single, tier 0 diesel propulsion engine and an auxiliary generator. The last rebuilds on the engines in these vessels were completed in the 1950s. The tugboats are based and operate primarily in Ohio's Lake Erie harbors of Toledo (Lucas County), Cleveland (Cuyahoga County), Ashtabula and Conneaut (both Ashtabula County), and may operate occasionally in Lorain (Lorain County).

Ohio EPA proposes to use the FY 2018 funds to support a modification requested by Great Lakes Towing in a request submitted March 27, 2018 to US EPA Region 5 (Frank Acevedo) and Ohio EPA (Carolyn Watkins) to the tug boat replacement project already approved for the FY 2017 funding. The project is currently approved to replace these eight vessels with four new Tier III twin engine tug boats with GenSets. The first of the new tug boats is currently under construction, using the technology originally proposed and approved. The company's March 2018 modification request is to use a different diesel electric hybrid system for the other three new tugs, at an added cost of \$624,000 per vessel or a total of \$1,872,000. The company proposes to keep the same project percentage, requesting that state and federal DERA funds cover 40% of the additional engine component costs of \$748,800, and the company pledging to pay 60% of the additional engine component costs of \$1,123,200.

Ohio EPA supports the company's request and has included the requested amount for the project modification in Ohio's Beneficiary Mitigation Plan that was submitted to the VW Trustee 5/31/18.

The school bus replacement project that was completed using FY 2017 funds came in \$1,890 under budget. Ohio EPA respectfully requests that the unused \$1,890 in FY 2017 funds be reallocated to the modified tug boat project. Thus the FY 2018 total project cost listed in the Project Budget Overview Table above is \$1,870,110 rather than \$1,872,000.

Ohio EPA used the Diesel Emissions Quantifier (DEQ) tool to estimate the pollution reductions to be achieved based on the specific equipment proposed in the modification request by the Great Lakes Towing Company. Whereas the project as previously approved was estimated to achieve 35 tons of total annual emission reductions of several pollutants, the modification requested is estimated to achieve 40.484 tons of annual reductions compared to baseline: 34.364 tons reduction in NOx (54%), 0.709 tons of PM_{2.5} (51%), 0.235 tons of HC (31%), 5.176 tons of CO (44%). A copy of that analysis is enclosed with this workplan.



Source: Ohio Maritime Study – Working Paper 1 – Ohio’s Maritime Transportation System, prepared by CPCS Transcom Inc for the Ohio Department of Transportation, March 10, 2017, <http://www.dot.state.oh.us/Divisions/Planning/SPR/StatewidePlanning/Documents/Ohio%20Maritime%20Study%20-%20WP%201.pdf>

The Great Lakes Towing Company’s originally approved project was to replace eight aging tugboats with four new twin-engine Damen tugs with MTU Series 4000 38 liter marine propulsion engines, model 8V4000M54R, rated at 1,000 BHP @ 1,600 RPMs, EPA Tier III emission rated; a John Deere 65kw marine generator set and a FlexaGen system, which is the added electric motor that would be engaged by the tug when not providing a ship assist service. The FlexaGen system allows the primary engines to be shut down during non-load operations, thereby further reducing emissions. The first of these replacement tugs is currently under construction in the Company’s Cleveland shipyard, and is expected to be completed in the fall of 2018.

For the remaining three new tugs, the Company is now proposing to further decrease emissions through the use of a diesel electric hybrid system, known as a FlexaDrive system rather than the FlexaGen system, that eliminates the use of costly batteries and uses an electric motor instead. The benefits of this request include the following:

- Decrease main diesel engine utilizations to 20%, employing the use of electric motor operation 80% of the time.
- Further reductions in emissions, estimated by Ohio EPA at 5 tons annually

- Reduced cost per ton of NOx reductions, estimated by the company at 56%
- Showcase a fleet of diesel hybrid electric vehicles, as this will be the only U.S. tug fleet operating with this new hybrid technology in the U.S.

ROLES AND RESPONSIBILITIES: *[A discussion of the roles and responsibilities of the state or territory and any other project partners, contractors, or subgrantees. State and territories should indicate whether their Program funds will support grant, rebate, and/or loans, and provide a detailed description of their disbursement methodology.]*

Ohio EPA proposes to amend the current grant agreement with sub-recipient the Great Lakes Towing Company in Cleveland, Ohio, to increase the current award to include FY 18 funds. The grant will reimburse the company for 40% of the engine component and installation costs to replace eight single engine Tier 0 tug boats operating in Ohio Lake Erie ports with four new Tier III tug boats with the proposed new technology.

Ohio EPA's grant contract with the Great Lakes Towing Company outlines their responsibilities consistent with the DERA funding requirements. Once this contract amendment has been signed and executed by both parties, Ohio EPA will notify the subrecipient to initiate purchase of the replacement engine equipment for the three tug boats. The subrecipient will pay 100% of the cost of the new tug boat, provide proof of payment, and submit an invoice to Ohio EPA for the approved allowable costs of the new tug boat.

The subrecipient is aware of and contractually obligated to fulfill a requirement to destroy the old tug boat engine within 90 days of placing the new tug boat into service. The Company has asked Ohio EPA and US EPA Region 5 to consider an alternate disposal method for one or possibly two of the oldest of the eight existing tug boats, to become part of permanent exhibits at maritime museums in Ohio and Michigan. The vessels will no longer be in service, but Ohio EPA has requested clarification from the Company and the museums as to whether and how often the old diesel engines might have to be engaged as part of exhibit maintenance. These details are still being negotiated, and will be shared with US EPA for a final determination on the alternate disposal request.

Ohio EPA requires quarterly expenditure and activity reports from subrecipients, and payments to subrecipients are strictly for reimbursement of eligible expenses based on Ohio EPA approval of submitted invoices. Subrecipients are contractually required to keep receipts and financial records for five years after concluding the grant and make those records available for inspection when requested. The replacement tug boats must be kept in service in Ohio ports for a minimum of five years, and are expected to remain in service for many more years. Subrecipients may not make changes to equipment or time lines without prior written approval from Ohio EPA. Staff members from Ohio EPA's Office of Environmental Education (OEE) and/or Division of Air Pollution Control (DAPC) may conduct site visits to observe installation of new tug boat engines, destruction of old tug boat engines, or audit financial records.

TIMELINE AND MILESTONES: *[A detailed timeline for the project including milestones for specific tasks, such as subgrant or rebate program development, solicitation of project partners, making subawards, program/project implementation, procurement and installation of equipment, monitoring and oversight of projects, and reporting.]*

Ohio EPA anticipates executing an amended contract with subrecipient The Great Lakes Towing Company within 45 days of receiving authorization to proceed from US EPA. The first of the four new tug boats is currently under construction in the Company's Cleveland shipyard, incorporating the FlexaGen technology previously approved for FY 2017 funds. Completion is expected in October, 2018. The Company is preparing to order the engine components for the three additional new tug boats immediately upon receiving authorization after approval of this workplan. A timeline of approximately three years is anticipated for the tugboat replacement project, with details and final emissions estimates to be submitted to US EPA for the DERA funding allocation, and to the VW Mitigation Trust Fund Trustee as part of Ohio's Beneficiary Mitigation Plan. We propose to use the DERA state allocation funds on the first two tug boats completed, and fund the remainder of the project with the VW match dollars that may be spent over a longer ten-year period.

DERA PROGRAMMATIC PRIORITIES: *[A discussion of how, in providing grants, rebates, and loans under the Program, the state or territory will ensure that projects selected for funding supports the programmatic priorities as defined in Section VIII.D of the Program Guide.]*

By using the federal grant funds to replace very old, unregulated diesel tug boats with Tier 3, cleaner diesel electric tug boats, this proposal will maximize the public health benefits of emission reductions for residents of large Lake Erie port cities like Cleveland and Toledo that have disproportionately suffered from diesel emissions, by reducing their exposure to nitrogen oxides, fine particulate matter, hydrocarbons and carbon dioxide, and the ground level ozone pollution that these precursors contribute to. As noted above, three of the five counties where the tug boats operate were recently redesignated non-attainment for ozone, and two are designated non-attainment for PM 2.5. The project should result in improvement in air quality in the ports. The proposed project was reviewed based on a formula that includes calculation of cost effectiveness in terms of the dollar cost per pound of PM_{2.5} and NO_x reductions that can be achieved, based on the type of engine, model year, engine operating hours, and the emissions factors published by US EPA or the California Air Resources Board.

EPA'S STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS: *[A discussion of how the projects selected for funding support the Agency's Strategic Plan, as well as a description of the environmental outputs and outcomes to be achieved under the Program, as defined in Section VIII.E of the Program Guide. To estimate some of the anticipated outcomes of the award (e.g. emissions reductions), EPA encourages states and territories to use the Diesel Emissions Quantifier found at: www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq.]*

The proposed project supports Goal 1, "Core Mission: Deliver real results to provide Americans with clean air, land and water, and ensure chemical safety," Objective 1.1, "Improve Air

Quality” by significantly reducing diesel emissions by an estimated 40 tons per year (DEQ) and reducing exposure of residents of several port cities and nonattainment areas to the harmful pollutants in diesel exhaust.

The tugboat project is also consistent with the findings and recommendations in EPA’s *National Port Strategy Assessment: Reducing Air Pollution and Greenhouse Gases at U.S. Ports*, (EPA Office of Transportation Air Quality, EPA-420-S-16-002, September 2016, <https://www.epa.gov/ports-initiative/national-port-strategy-assessment>) to reduce port-related diesel emissions that impact public health and the climate.

Outputs: Ohio EPA will track the destruction (or approved alternate disposal) of the old tug boat engines, and verify that new higher-tier diesel engines are placed into service. Ohio EPA will use the Diesel Emissions Quantifier tool to estimate the annual pounds or tons of nitrogen oxides, fine particulate matter (PM_{2.5}) and other pollutants reduced, and will calculate the project cost-effectiveness in dollars per pound of PM_{2.5} and other parameter emission reductions achieved. Specific emission reduction estimates will be revised in the final project report to reflect the equipment actually installed.

Outcomes: Short term outcomes include direct reductions in emissions from the replacement of eight old diesel tug boats with cleaner diesel electric hybrid engines. These actions will have immediate public health benefits for the residents of the Ohio Lake Erie port communities. Another will be the increased public awareness of the benefits of the clean diesel program, as Ohio EPA and the Great Lakes Towing Company publicize their efforts.

Medium-term outcomes include the widespread adoption of cleaner technology by diesel fleets in Ohio. What is learned from this project is anticipated to inform our efforts to reduce emissions from other targeted fleets, allowing continued progress toward the goals of the Midwest Clean Diesel Initiative.

Long-term outcomes include improved air quality in some of the state’s urban areas that have struggled to meet PM_{2.5} and ozone standards for air quality.

SUSTAINABILITY OF THE PROGRAM: *[A description of the state’s or territory’s plan for sustaining the project beyond the assistance agreement period. Additionally, describe the state’s or territory’s plan for publicizing and promoting the benefits of the activities within the state or territory.]*

Ohio EPA will continue to use DERA state allocation funds, Ohio Alternative Fuel Vehicle grants, CMAQ-funded Diesel Emission Reduction Grants (DERG) and the new funding from the Volkswagen Mitigation Trust in Ohio’s new Diesel Mitigation Trust Fund (DMTF) grant program to repower and replace diesel on-road vehicles and off-road equipment with new clean technology. Ohio’s VW Beneficiary Mitigation Plan was filed with the VW Trustee May 31, 2018, and the first DMTF Request for Proposals was released June 4, 2018. VW funds proposed here for the DERA Option match on the tug boat project will be available to draw down from the VW Trust beginning July 1, 2018.

Ohio EPA issues a news release to major media outlets statewide announcing the Request for Proposals for each new grant cycle in these programs, and frequently updates an Interested Parties list of more than 4,000 names via email. Ohio EPA issues news releases and e-mailings to announce the recipients and grant amounts awarded, and amount of pollution reduction that is anticipated to result. The news releases are also sent to the subrecipients' local media outlets.

Ohio EPA will continue to publicize the DERA award and tug boat project on its DERA and DMTF web pages.

In April, 2018, Ohio EPA created the attached poster about the tug boat project (as originally approved) that was exhibited at annual conferences of the Environmental Education Council of Ohio, Ohio Environmental Health Association, and legislative briefings about the new VW program. We will also exhibit it at a July 10, 2018 public information session about the VW program, and feature the project in newsletter articles, presentations and exhibits at conferences of organizations such as Clean Fuels Ohio (Midwest Green Fleets), the Ohio Department of Transportation's Transportation Education Conference, the Ohio School Boards Association, Ohio Health Commissioners Association, Ohio Public Health Association, Ohio Pupil Transportation Association, Science Education Council of Ohio, and Environmental Education Council of Ohio.

Ohio's clean diesel projects are also featured in Ohio EPA exhibits at large public events such as the Ohio State Fair and regional Earth Day celebrations, at the Mid-Ohio Regional Planning Commission's annual Clean Air Fair, at career day and environmental education programs for schools and workshops for teachers.

The Great Lakes Towing Company is also publicizing the project through its newsletter and other publications. We have asked that they include copies of news clippings and other documentation of their efforts in their reports to Ohio EPA.

BUDGET NARRATIVE

This section of the work plan should include a detailed itemized budget proposal (in addition to the Standard Form 424A), using the table below. Justify the expenses for each of the categories being performed within the grant/project period. Indicate which costs will be paid by the state's or territory's allocation from EPA (which would include the bonus match, if applicable) and which costs will be paid by the state's or territory's voluntary matching funds, if applicable.

*Applicants must **itemize** costs related to personnel, fringe benefits, travel, equipment, supplies, contractual costs, other direct costs, indirect costs, and total costs. If the project budget includes any cost-share, mandatory or voluntary, the budget detail portion of the work plan must include a detailed description of how the applicant will obtain the cost-share and how the cost-share funding will be used.*

Mandatory cost-share funds must be in the form of cash contributions to the Equipment Category. If EPA accepts an offer for a voluntary cost-share, applicants must meet their sharing commitment in order to receive EPA funding. If the proposed cost-share is to be provided by a third-party, a letter of commitment is encouraged. Any form of cost-share included in the budget detail must also be included on the SF-424 and SF-424A.

Applicants should use the following instructions, budget category descriptions and example table to complete the budget detail section of the work plan. Detailed sample budgets representing various mandatory cost-share versus state voluntary match scenarios are available at: www.epa.gov/cleandiesel/clean-diesel-state-allocations.

Itemized Project Budget

Budget Category	FY 2017*			FY 2018			Total
	EPA Allocation	Voluntary Match (if applicable)	Mandatory Cost-Share (if applicable)	EPA Allocation	Voluntary Match (if applicable)	Mandatory Cost-Share (if applicable)	
1. Personnel							
2. Fringe Benefits							
3. Travel							
4. Supplies							
5. Equipment							
6. Contractual							
7. Program Income							
8. Other							
Subgrant to Madison Local Schools for 25% of one school bus replacement (budgeted \$21,284, actual \$19,394) Local cost share will drop to \$58,182)	\$21,284		\$63,852				\$85,136
Subgrant to Great Lakes Towing for 40% of engine components of four new tugboats at	\$384,332	\$1,098,533	\$2,224,297				\$3,707,162

\$370,716 per vessel							
Subgrant to Great Lakes Towing for 40% of incremental diesel electric hybrid engine components of three new tugboats at \$624,000 per vessel				\$418,260	\$328,650	\$1,123,200	\$1,870,110
9. Total Direct Charges							
10. Indirect Charges							
Total	405,616	1,098,533	2,288,149	418,260	328,650	1,123,200	\$5,662,408

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

Explanation of Budget Framework

- **Personnel - N/A**
- **Fringe Benefits – N/A**
- **Travel – N/A**
- **Equipment – N/A**
- **Supplies – N/A**
- **Contractual – N/A**
- **Other - List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost. This category should include only those types of direct costs that do not fit in any of the other budget categories. Examples of costs that may be in this category are: insurance, rental/lease of equipment or supplies, equipment service or maintenance contracts, printing or photocopying, rebates, and subaward costs. Subawards (e.g., subgrants) are a distinct type of cost under this category. The term “subaward” means an award of financial assistance (money or property) by any legal agreement made by the recipient to an eligible subrecipient. This term does not include procurement purchases, technical assistance in the form of services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct appropriations. Subcontracts are not subawards and belong in the contractual category.**

Applicants must provide the aggregate amount they propose to issue as subaward work and a description of the types of activities to be supported.

The amount of the proposed subaward to the Great Lakes Towing Company is based on a cost breakout of the additional funding requested by the company in a May 30, 2018 email, attached.

Canal/Logan	\$ 344,000 per vessel
Power Management Systems and Controls	
Motor Generators (2)	
Low Harmonic Drive Units (2)	
Hybrid Control Cabinet (1)	
Twin Disc – providing gears with Power Take Off	\$ 60,000 per vessel
Labor – engineering, installation, commissioning and training	<u>\$ 220,000 per vessel</u>
	\$ 624,000 per vessel
 Project Total for three vessels (Hulls 6203, 6204, 6205)	 \$1,872,000
 60% Local cost share from company operating budget	 \$1,123,200
40% share from grant and state match:	\$ 748,800
DERA FY18	
EPA base	\$ 278,840
EPA Match Incentive	\$ 139,420
Reallocated Unspent DERA FY17 funds	\$ 1,890
State Match VW DERA Option	<u>\$ 328,650</u>
	\$748,800

- *Indirect Charges – N/A*

Administrative Costs Expense Cap N/A

Matching Funds and Cost-Share Funds

States and territories must provide a detailed description of the source of funding for any voluntary match or mandatory cost-share funds included in the project budget, if applicable. Include details on when the match will be available for use. If applicable, include letters of financial support, which specifically indicate how supporting organizations will assist in the project.

See Sections V.D and X of the Program Guide for more information on the voluntary matching incentive and mandatory cost-share funds.

Funding Partnerships N/A

