APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary: State of Florida

Lead Agency Authorized to Act on Behalf of the Beneficiary: Florida Department of Environmental Protection
(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:	Florida DERA 2022 - Marine Engine Replacement
Beneficiary's Project ID:	DG010
Funding Request No.	*(sequential)* **5**
Request Type: **(select one or more)**	☐ Reimbursement ☒ Advance ☐ Other (specify): _____
Payment to be made to: **(select one or more)**	☒ Beneficiary ☐ Other (specify): _____
Funding Request & Direction (Attachment A)	☒ Attached to this Certification ☐ To be Provided Separately

SUMMARY

Eligible Mitigation Action Action Type	☐ Appendix D-2 item (specify): _____ ☒ Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): Marine Repower
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):	Florida's Beneficiary Mitigation Plan (MP) allocates 15% of available funding for DERA projects (MP pages 3, 24, and 25.)
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):	This project is for the replacement of high emitting marine diesel engines with new, well-controlled diesel engines. This effort is in accordance with both Florida's MP and Florida's 2022 DERA Work Plan, which focuses on diesel emission reduction projects at ports and aboard marine vessels. According to EPA's Diesel Emissions Quantifier, a typical marine diesel replacement project yields about a 90 percent reduction of NOx.
Estimate of Anticipated NOx Reductions (5.2.3):	According to EPA's Diesel Emissions Quantifier, a typical marine diesel replacement project yields about a 90 percent reduction of NOx.
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):	Florida Department of Environmental Protection (DEP).
Describe how the Beneficiary will make documentation publicly available (5.2.7.2).	DEP maintains a webpage that provides background resources and current information about the Mitigation Trust. DEP also maintains a DERA webpage as required under the federal grant. Additionally, DEP manages an electronic mailing subscription service to provide notices and information to all subscribers. All pages are navigable from the main webpage at www.FloridaDEP.gov/volkswagen.
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).	DEP is providing the maximum cost share allowable under the most recent DERA Program Guide (2021) issued by EPA. The maximum cost share allowable for this project (diesel engine replacements) is 40 percent from DEP and 60 percent from the marine vessel owner.
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).	On February 22, 2018, DEP sent notice via ground mail and electronic mail to the representatives of the U.S. Department of Agriculture, and the U.S. Department of the Interior listed in subparagraph 4.2.8 of the Final Trust Agreement.

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). Land based units are more accurately quantifiable for mitigating community-based impacts of NOx emissions compared to this project, which will replace engines aboard a passenger vessel for which the majority of operating time will occur on open water. The value of this project is in the reduction of emissions while the vessel is idling in port or dock and the number of passengers on board during operation or on the premises while docked. Ports have historically been areas of higher NOx emissions concentrations due to marine traffic, idling, and the number of older diesel units remaining in operation.

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 Florida**, 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: September 27, 2022

[NAME] Jeff Koerner
[TITLE] Director
Division of Air Resource Management
[EMAIL] Jeff.Koerner@FloridaDEP.gov

[LEAD AGENCY]
Florida Department of Environmental Protection

for

State of Florida
[BENEFICIARY]

ATTACHMENT A

FUNDING REQUEST AND DIRECTION

(Attachment to Appendix D-4, Beneficiary Eligible Mitigation Action Certification, pursuant to Paragraph 5.2 of the Environmental Mitigation Trust Agreement)

Pursuant to the authority granted to Florida Department of Environmental Protection [*insert Lead Agency]* to act on behalf of Beneficiary ___State of Florida_____ under the Mitigation Trust, *[Lead Agency]* directs the Trustee to make the following payments from its subaccount no. _____122969-050_____ to the following payees, for the amounts specified on the dates specified below.

LEAD AGENCY INFORMATION

Beneficiary Name: State of Florida	Lead Agency Contact Person: Jeff Koerner
Lead Agency Name: Florida Department of Environmental Protection	Lead Agency Email Address: Jeff.Koerner@FloridaDEP.gov
Lead Agency Address: 3900 Commonwealth Blvd. Tallahassee, FL 32399	Lead Agency Fax: 855-611-8554
Lead Agency Phone: (850) 245-2118	Lead Agency TIN: 59600 353

Contact information entered above may correspond to Lead Agency or 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

---

MITIGATION ACTION INFORMATION

Action Title: Florida DERA 2022 - Marine Engine Replacement Funding Request No: 5

Beneficiary's Project ID: DG010

PAYMENTS REQUESTED

(attach additional pages if needed)

Amount	Requested Date	Payee	Request Type
1,200,000.00		Florida Department of Environmental Protection	Advance

PAYEE CONTACT AND WIRE INFORMATION

(fill out both tables below for each payee and payment identified in "Payments Requested" table on p. 1; attach additional pages if needed)

PAYEE CONTACT INFORMATION

Action Title:	Florida DERA 2022 - Marine Engine Replacement	Beneficiary Project ID:	DG010
Payee Name:	Florida Department of Environmental Protection	Payee Contact Person:	Jeff Koerner
Payee Address:	3900 Commonwealth Boulevard Tallahassee, FL 32399-3000	Payee Email Address:	Jeff.Koerner@FloridaDEP.gov
Payee Phone:	850-717-9000	Payee Fax:	855-611-8554
Payee TIN:	596007353		

Payment Amount	Requested Date	Request Type
$1,200,000.00	September 27, 2022	Advance

WIRE INFORMATION

Receiving Bank Name:	Wells Fargo Bank, N.A.		
Receiving Bank Branch:			
Receiving Bank Address:	1 Independent Drive, Jacksonville, FL 32202		
Bank Swift ID:	WFBIUS6S	National Routing No. / Bank ABA Number *(Sort Code, BLZ)*	121000248
Amount of Wire:	$1,200,000.00		
Message to Payee:			
Instructions to Receiving Bank:	Account #: 4830164612 FEID #: 59-7007353 Account Title: STATE OF FLORIDA DEPARTMENT OF FINANCIAL SERVICES		
For Credit to:	FL DEPT OF ENVIRONMENTAL PROTECTION LOCATION 3700000		
Other Special Instructions:			

[Signature Block]

Attachment B

Eligible Mitigation Action Management Plan – Project Management Plan

Implementation and Expenditures Timeline – Project Schedule and Milestones

Milestone	Estimated Start/End Date
DEP Publishes Notice of Funding Availability for potential DERA-funded emissions mitigation projects	8/27/2021
DEP Reviews Applications	As received
DEP Notifies Applicant(s) of Award	6/27/2022
DEP Develops and Executes Grant Agreement with Grantee	Fall 2022
Grantee Commences Work on Enumerated Deliverables	Fall 2022
Grantee Submits Final Deliverable (Scrapping Certificate)	Fall 2023
Grantee Submits Reimbursement Request to DEP	Winter 2023-24
DEP Reimburses Grantee/Grant Close-Out	Winter 2024
Project Completion Date	Spring 2024

Budget Narrative

As noted in the timeline above, DEP has completed its review of project proposals received through the Notice of Funding Availability for the replacement of old, heavily emitting marine vessel diesel engines with new, well-controlled diesel engines. DEP has identified one project that provides high emissions benefits, which can be completed in a timely manner, and which is in cost range appropriate for available DERA program funding. This project will replace the propulsion engine, gearboxes, auxiliary generator sets and related equipment in the high-speed catamaran ferry vessel M/V Big Cat Express. The existing EPA Tier-0 engines will be replaced with new state-of-the-art EPA Tier-3 certified engines. DEP anticipates that this project will be completed before the end of federal fiscal year 2024, to ensure that base and bonus funding from the EPA will be accessible. DEP is in the process of developing and a grant agreement detailing the specific timeline and schedule of values for this project. DEP will not be using any trust funding or DERA funding for DEP staff compensation or any other administrative costs.

Marine Diesel Engine Project Estimates

	Total Approved Budget	**Share of Total Budget to be Funded by the Trust**	Share of Total Budget Funded by Federal DERA Grant	Cost-Share, if applicable (Grantee)
Project Totals	$4,460,000.00	**$1,200,000.00**	$529,000	$2,731,000.00
Percentage		**27%**	12%	61.0%

Projected Trust Allocations

	October 2022 – September 2023
1. Anticipated 2022 Project Funding Request to be paid through the Trust	$1,200,000.00
2. Anticipated Annual Cost Share	$3,260,000.00 ($529,000 from DERA and $2,731,000.00 from Grantee)
3. Anticipated Total Project Funding by Year	$4,460,000.00
4. Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation[1]	$149,041,811.60
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	$1,200,000.00
6. Total Funding Allocated to Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	$150,241,811.60
7. Beneficiary Share of Estimated Funds Remaining in Trust	$17,236,933.40
8. Net Beneficiary Funds Remains in Trust Net of cumulative Beneficiary Funding Actions (excluding investment income from principal)	$16,036,933.40

[1.] Inclusive of prior Funding Request Nos. 1, 2, 3, 4, and 4-A. As of the date of this submittal, the Trustee's review and approval of Funding Request No. 4-A has not been completed.

Attachment C

Detailed Plan for Reporting on Eligible Mitigation Action Implementation

As set forth in subparagraph 5.2.11 of the Environmental Trust Agreement for State Beneficiaries (Final Trust Agreement), Beneficiaries must set for a "detailed plan for reporting on Eligible Mitigation Action implementation" to be included in an Appendix D-4 funding request. The Florida Department of Environmental Protection intends to report based on the obligations set forth in 5.3 of the Final Trust Agreement, seen below:

5.3 Beneficiary Reporting Obligations: For each Eligible Mitigation Action, no later than six months after receiving its first disbursement of Trust Assets, and thereafter no later than January 30 (for the preceding six-month period of July 1 to December 31) and July 30 (for the preceding six-month period of January 1 to June 30) of each year, each Beneficiary shall submit to the Trustee a semiannual report describing the progress implementing each Eligible Mitigation Action during the six-month period leading up to the reporting date (including a summary of all costs expended on the Eligible Mitigation Action through the reporting date). Such reports shall include a complete description of the status (including actual or projected termination date), development, implementation, and any modification of each approved Eligible Mitigation Action. Beneficiaries may group multiple Eligible Mitigation Actions and multiple sub-beneficiaries into a single report. These reports shall be signed by an official with the authority to submit the report for the Beneficiary and must contain an attestation that the information is true and correct and that the submission is made under penalty of perjury. To the extent a Beneficiary avails itself of the DERA Option described in Appendix D-2, that Beneficiary may submit its DERA Quarterly Programmatic Reports in satisfaction of its obligations under this Paragraph as to those Eligible Mitigation Actions funded through the DERA Option. The Trustee shall post each semiannual report on the State Trust's public-facing website upon receipt.

Attachment D

Detailed Cost Estimates from Selected or Potential Vendors for Each Proposed Expenditure

The cost estimate for this project has a ceiling of $4,460,000. The estimated cost per engine is between $650,000 and $750,000. Cost estimates have been provided by the grantee during the project application period. Based on public information provided through surveys and requests for information, this range of prices is the best current estimate for engine replacements on passenger vessels, which are the type of vessel that are most common for the size and scope of the project the DEP is aiming to fund. A specification sheet for the specific engine type planned for this project, together with the DERA Marine Vessel and Diesel Engine Replacement Application Worksheet completed by the grant applicant, are attached below.

DEP is making one funding request for this project. DEP is requesting $1,200,000 in Mitigation Trust funds for this project.

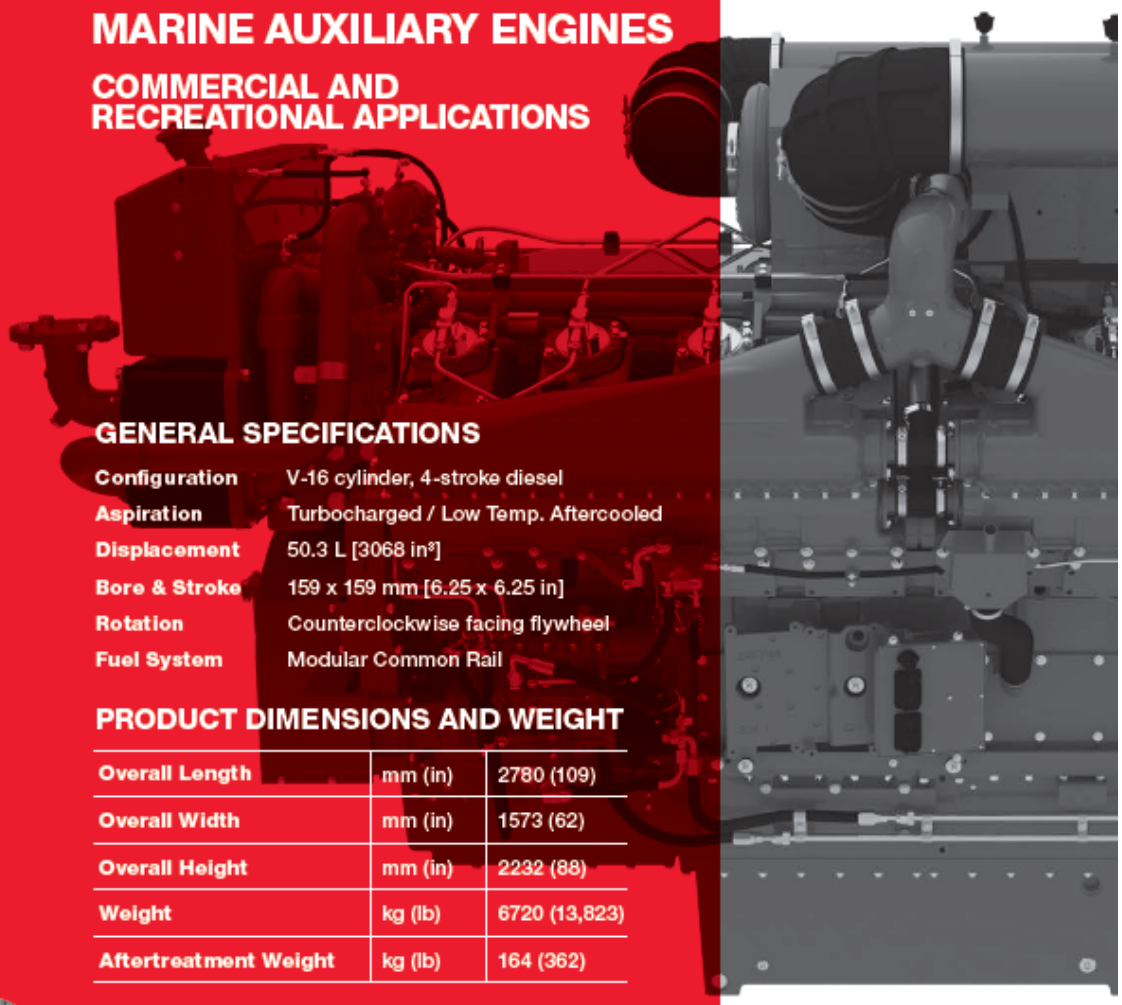
Eligible Replacement Marine Diesel Engine	Estimate
Tier-3 Engine	$650,000 - $750,000 per engine

Budget Category	Estimate
Marine Diesel Engines (4)	$2,650,000.00
Freight	$150,000.00
Labor (dismantle, removal, repower, electrical, welding, scrapping, etc.)	$1,660,000.00
Equipment & Supplies	N/A
Overhead	N/A
Fringe Benefits	N/A
Travel	N/A
Total Project Cost	**$4,460,000.00**

QSK50 IMO III

MARINE AUXILIARY ENGINES

COMMERCIAL AND RECREATIONAL APPLICATIONS

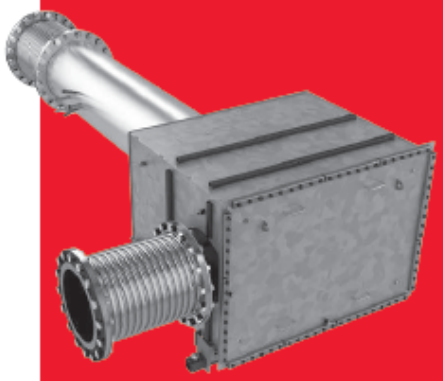


GENERAL SPECIFICATIONS

Configuration	V-16 cylinder, 4-stroke diesel
Aspiration	Turbocharged / Low Temp. Aftercooled
Displacement	50.3 L [3068 in³]
Bore & Stroke	159 x 159 mm [6.25 x 6.25 in]
Rotation	Counterclockwise facing flywheel
Fuel System	Modular Common Rail

PRODUCT DIMENSIONS AND WEIGHT

Overall Length	mm (in)	2780 (109)
Overall Width	mm (in)	1573 (62)
Overall Height	mm (in)	2232 (88)
Weight	kg (lb)	6720 (13,823)
Aftertreatment Weight	kg (lb)	164 (362)



POWER RATINGS

Engine Model	Output Power		Engine Speed RPM	Rating Definition	Fuel Consumption				Emissions IMO
	kW	BHP			Rated Speed L/hr (gal/hr)		ISO* L/hr (gal/hr)		
Fixed Speed									
QSK50-DM1	1290	1730	1500	Prime	316.6	83.6	164.9	43.5	3
QSK50-DM1	1342	1800	1800	Prime	339.9	89.8	177.6	46.9	3
QSK50-DM1	1628	2183	1800	Prime	405.1	107.0	211.0	55.7	3

*Average fuel consumption based on ISO 8178 E3 Standard Test Cycle (variable speed models) and ISO 8178 D2 Standard Cycle (fixed speed models).

FEATURES AND BENEFITS

Engine Design – Reliable base engine uses common components from the proven K19, K38 and K50 engines. A new cast-iron, ductile single-piece piston with nitride-coated rings and hardened cylinder liner provides excellent durability and long life. No matter the vessel, Cummins will keep you always on.

Fuel System – Modular Common Rail Fuel System features a simplified design which provides constant high injection pressure regardless of engine speed or load condition. Benefits include low noise and vibration for quiet operation, idle stability and low-end torque.

Cooling System – Two-pump, two-loop, low temperature aftercooling maximises efficiency and improves performance. Engine-mounted titanium plate heat exchanger provides superior durability with minimal maintenance requirements.

Exhaust System – Dry-shielded exhaust manifold and turbocharger. Vertical or horizontal exhaust connections available for installation flexibility.

Air System – Turbocharger optimised for vessel operating conditions and safety. Mounted or remote marine grade air cleaner with replaceable canister reduces maintenance cost.

Lubrication System – Standard capacity 151 L (40 gal) and high capacity 204 L (54 gal) marine grade oil pan. Cummins spin-on oil filters available for easy accessibility and servicing.

Electronics – 24v Quantum System electronics feature an ECM to monitor operating parameters, while providing diagnostics, prognostics and complete engine protection. Simplified electrical customer interface box for all vessel connections to reduce installation complexity.

Certifications – Complies with IMO Tier III emissions regulations. Designed to meet the International Association of Classification Societies (IACS) and SOLAS requirements.

Consult your local Cummins professional for a complete listing of available class approvals.

Aftertreatment System – Lower DEF Consumption, Higher Sulfur Tolerance, and keeping idle up to speed.

OPTIONAL EQUIPMENT

- C Command panels
- ELIMINATOR™ oil filtration system
- Premium coolant hose connections
- Duplex lube oil and fuel filtration
- SAE A or B (keel cooled only) accessory drives
- Front PTO adaptor
- Pre-lube with QuickEvac
- Air or electric starter
- Rigid or flexible mounting arrangements

cummins.com

Bulletin 5600421 12/19

FLORIDA DEPARTMENT OF
Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Interim Secretary

Diesel Emissions Reduction Act
Marine Vessel and Diesel Engine Replacement Application Worksheet

Project Applicability:
This grant application worksheet is available for owners of marine vessels who wish to apply for partial reimbursement of whole vessel or engine replacement costs. This funding will be available for owners to replace their eligible marine vessel or marine diesel engines categorized as unregulated, Tier 1, Tier 2, or Tier 3, with a new marine vessel or marine diesel engines that meet current emissions standards. Eligibility requirements may be found in the U.S. Environmental Protection Agency's (EPA) Diesel Emissions Reduction Act (DERA) grant program guide. An excerpt table from the program guide showing current and replacement engine eligibility is shown below:

Marine Engine and Vessel Replacement Eligibility (Highlighted in yellow)

Engine Category	Engine Horsepower	Current Engine Tier	Engine & Vessel Replacement				
			Compression Ignition			Spark Ignition (EMY 2019+)	Zero Emission[2]
			Tier 1-2	Tier 3	Tier 4		
C1, C2	<803	Unregulated – Tier 2	No	Yes	No	Yes	Yes
C1, C2	≥804	Unregulated – Tier 2	No	Yes[1]	Yes	Yes	Yes
C1, C2	<803	Tier 3	No	No	No	Yes	Yes
C1, C2	≥804	Tier 3	No	No	Yes	Yes	Yes
C3	All	Unregulated – Tier 2	No	Yes	No	No	No

[1]Tier 3 engines may be used for engine replacement only if Tier 4 is demonstrated to not be available or feasible through a best achievable technology analysis as defined in Section VIII.D.1 in the 2021 DERA Program Guide. Over 800 HP, Tier 3 engines are not eligible for full vessel replacement.
[2]Fuel cell engine and vessel replacements are not eligible.

No funds awarded under this program shall be used to replace marine engines that operate fewer than 1,000 hours during the two years prior to upgrade. Engine hours may be combined to reach the 1,000-hour threshold where two engines will be scrapped and replaced with a single engine.

Project Description:
The Department of Environmental Protection (Department) intends to make this round of DERA funding available to owners who wish to replace an eligible marine vessel or marine diesel

engine with a new marine vessel or marine diesel engine. The Department will reimburse the owner up to 25 percent of the total cost of a marine vessel replacement or up to 40 percent of a marine diesel engine replacement. The Department is also placing a four (4) propulsion engine maximum per grant applicant during this round of funding.

As a condition of participating in this DERA project, the owner of the marine vessel must provide, to the Department, evidence that the owner has scrapped or permanently disabled the replaced vessel and/or engine within thirty (30) days of receipt of the new unit. Any owner of an eligible marine vessel and/or engine that submits this worksheet and enters into a grant agreement with the Department must complete the scope of work and submit all invoices and support materials to the Department within strict state budget and federal funding parameters.

The Department intends to make DERA funds available to all eligible applicants that submit this worksheet by Monday, September 27, 2021. Awards are subject to availability of funds as allocated under EPA's DERA program and state budget authority. Priority will be given to projects that provide high emissions benefits, can be completed in a timely manner, and will encumber significant amounts of available funding. If the number of eligible projects submitted exceeds the available funding for this notice, the Department reserves the right to partner with applicants in the future. The Department reserves the right to reject any and all bids or accept minor irregularities in the best interest of the State of Florida. Marine vessel and marine diesel engine projects are only eligible for funding if the primary activity of the marine vessel is to provide services to one of Florida's ports.

Once the Department has identified project partners for this round, the Department will prepare grant agreements specific to each project partner. Each grant agreement will include a detailed scope of work, timeline, and reimbursement schedule. All interested parties must complete and send this application worksheet to VWMitigation@FloridaDEP.gov.

Applicant Information – Marine Vessel and/or Engine Replacement Project		
1) Applicant's name: Key West Express, LLC		
2) Authorized corporate officer or partner's name: George Hilton		
3) Street address: P.O. Box 2460	4) City: Ft. Myers Beach	
5) State: FL 6) Zip: 33931	7) County: Lee	
8) Mailing address if different than above:	9) City:	
10) State: 11) Zip:	12) County:	
13) Email address: george@keywestexpress.net	14) Contact phone: 978-465-1626 (o); 978-420-2862 (m)	
15) Can the project be completed and invoiced by June 1, 2022?	☐ Yes	☑ No

Note: Due to the complexity of the project and the long lead times for major equipment (e.g., engines, gears, jet-drive impellers), as well as the need to schedule the installation work during the vessel off-peak season (late fall, winter, spring), KWE does not expect to be able to complete the project by June 1, 2022. Please see the attached suggested project schedule for your consideration.

16) Is the project a whole vessel replacement or an engine only replacement? (Check one box to the right)	☐ Vessel	☑ Engine

17) Please complete the following table requesting vessel and engine specific information:

	Horsepower	Engine Model Year	Type of Vessel	Estimated Total Cost to Repower or Replace Vessel (per engine if repower – include labor)
1	1800	2003	High-Speed Ferry	$ 980,975.00
2	1800	2003	High-Speed Ferry	$ 980,975.00
3	1800	2003	High-Speed Ferry	$ 980,975.00
4	1800	2003	High-Speed Ferry	$ 980,975.00
			Total Cost:	$ 3,923,500.00 (w/o generators - see next page)

18) Does the intended project unit carry sufficient documentation to verify all requirements and information listed above? (Check one box to the right)	☑ Yes	☐ No
19) Based on the chart above titled "Marine Engine and Vessel Replacement Eligibility," does your project meet the requirements outlined? (Check one box to the right)	☑ Yes	☐ No

Note: Please reference the 2021 DERA Grant Program Guide to determine if your diesel engine is eligible to be replaced

16) Is the project a whole vessel replacement or an engine only replacement? (Check one box to the right)	☐ Vessel	☑ Engine

17) Please complete the following table requesting vessel and engine specific information:

	Horsepower	Engine Model Year	Type of Vessel	Estimated Total Cost to Repower or Replace Vessel (per engine if repower – include labor)
1	125	2003	High-Speed Ferry	$ 60,000.00
2	125	2003	High-Speed Ferry	$ 60,000.00
3				
4				
			Total Cost:	$ 120,000.00

18) Does the intended project unit carry sufficient documentation to verify all requirements and information listed above? (Check one box to the right)	☑ Yes	☐ No
19) Based on the chart above titled "Marine Engine and Vessel Replacement Eligibility," does your project meet the requirements outlined? (Check one box to the right)	☑ Yes	☐ No

Note: Please reference the 2021 DERA Grant Program Guide to determine if your diesel engine is eligible to be replaced

Note: This additional page 2 is provided to include the auxiliary generator sets on the vessel.

The proposed project consists of replacing the following on the vessel (see supplement for additional information):

4 main propulsion engines (including controls, mufflers & shipping)
4 marine transmissions
4 jet-drive impellers
2 auxiliary generator sets
1 CSP electronics vessel monitoring system

The total cost estimate for the entire project is $4,043,500.00

Attachment E

DERA Option (5.2.12)

Additional Information about the DERA Work Plan

The DERA work plan below, titled *Florida's Combined 2021 & 2022 DERA Grant Program,* was submitted to the U.S. Environmental Protection Agency (EPA) for the federal fiscal year 2022-2023, which begins October 1, 2022, and will end on September 30, 2023. This work plan was drafted and submitted with the intention of utilizing a portion of Florida's Beneficiary Mitigation Trust allocation, identified in Florida's Beneficiary Mitigation Plan as 15 percent of the total allocation, for various DERA State Grant Program projects.

This table below (which is excerpted from Florida's 2022 DERA work plan), shows the total amount of DERA funding provided by EPA in DEP's current grant.

Project Budget Overview

	2021	2022
EPA Base Allocation	$377,507.00	$412,651.00
EPA Match Bonus (if applicable)	$188,754.00	$206,326.00
Voluntary Matching Funds (if applicable)	$377,507.00	$412,651.00
Mandatory Cost-Share	As required by category	As required by category
TOTAL Project Cost	**$943,768.00**	**$1,031,628.00**

Florida's 2022 DERA work plan states the following: "With this application, the Department intends to use 2022 funds for large-scale projects, such as marine vessel repowering or replacement. At present, the project types to be funded during the 2022 budget cycle will focus on ports and other modes of commerce, primarily through marine engines and other on-road, nonroad, or rail options." Florida's adherence to this plan is evidenced in this funding request for a marine vessel diesel engine replacement project(s).

Based upon the information provided by the grant applicant for the proposed marine diesel repowering project, the availability of trust funds for DERA State Grant Program projects, and allowances for overmatching EPA's mandatory match requirement, Florida has determined that it is appropriate to increase the voluntary matching funds for the FY 2023 beyond the amount indicated in the state's 2022 DERA work plan to the amount sought in this funding request. As noted in Florida's DERA work plan, "Florida plans to utilize matching funds and potentially overmatching funds from the Volkswagen Mitigation Trust for Florida's state match. In addition, the Department will require that all project partners meet the minimum DERA cost share requirements."

2022 Diesel Emissions Reduction Act (DERA) State Grants

Work Plan and Budget Narrative Template

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

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

****

SUMMARY PAGE

Project Title: Florida's Combined 2021 & 2022 DERA Grant Program

Project Manager and Contact Information

Organization Name: Florida Department of Environmental Protection

Project Manager: Jeffery F. Koerner

Director, Division of Air Resource Management

Mailing Address: 2600 Blair Stone Rd. MS 5500 Tallahassee, FL 32399-2400

Phone: 850-717-9000

Fax: N/A

Email: jeff.koerner@floridadep.gov

Project Budget Overview:

	2021*	2022
EPA Base Allocation	$377,507	$412,651.00
EPA Match Bonus (if applicable)	$188,754	$206,326.00
Voluntary Matching Funds (if applicable)	$377,507	$412,651.00
Mandatory Cost-Share	As required by category	As required by category
TOTAL Project Cost	**$943,768**	**$1,031,628.00**

*If state participated in 2021

Project Period for 2021-2022 DERA State Grants

October 1, 2021 – September 30, 2023

Summary Statement

The Florida Department of Environmental Protection (Department) intends to use the available grant funding from program year 2021 and program year 2022 before September 30, 2023.

The Department is now applying for 2022 funding to be utilized in conjunction with 2021 funds as well as funds made available to the State of Florida from the Volkswagen settlement's Environmental Mitigation Trust (Trust). The Department intends to use funds from the Trust as the state's voluntary match.

With this application, the Department intends to use 2022 funds for large-scale projects, such as marine vessel repowering or replacement. At present, the project types to be funded during the 2022 budget cycle will focus on ports and other modes of commerce, primarily through marine engines and other on-road, nonroad, or rail options.

The Department maintains a website that provides the public with information on DERA programs and details past DERA-related projects in the state: https://floridadep.gov/air/air-director/content/diesel-emissions-reduction-act-dera-florida

****

SCOPE OF WORK

STATE/TERRITORY GOALS AND PRIORITIES:

Most air pollutants in Florida occur in concentrations well below the National Ambient Air Quality Standards (NAAQS), some can occur locally in concentrations that potentially affect the health of Florida's citizens. The criteria pollutants of greatest concern for mobile emissions are ground-level ozone and particulate matter, together with the precursors that form them (i.e., NO_X, SO_2, and volatile organic compounds [VOCs]). The use of legacy diesel-powered vehicles is a significant contributor to the total emissions that lead to ground-level ozone formation and increased particulate matter concentrations. Local impacts from diesel exhaust includes a range of hazardous air pollutants, which are an additional health concern.

According to the 2017 National Emission Inventory (NEI), Florida's total emissions of NO_X from all sources 447,440 tons.[1] The majority of these NO_X emissions came from mobile sources. These sources emitted 299,476 tons in 2017, approximately 67% of the total statewide NO_X emissions. In Florida, approximately 54% of all NO_X emissions (160,685 tons) are from diesel-powered mobile sources. Figure 1 shows the sources of NO_X emissions in Florida. Figure 2 shows the distribution of total NO_X emissions by county.

[1] EPA's 2014 NEI Data: https://www.epa.gov/air-emissions-inventories/2014-national-emissions-inventory-nei-data

Figure 1. Percentage Distribution by Sector for All NOX Emissions in Florida (2017)

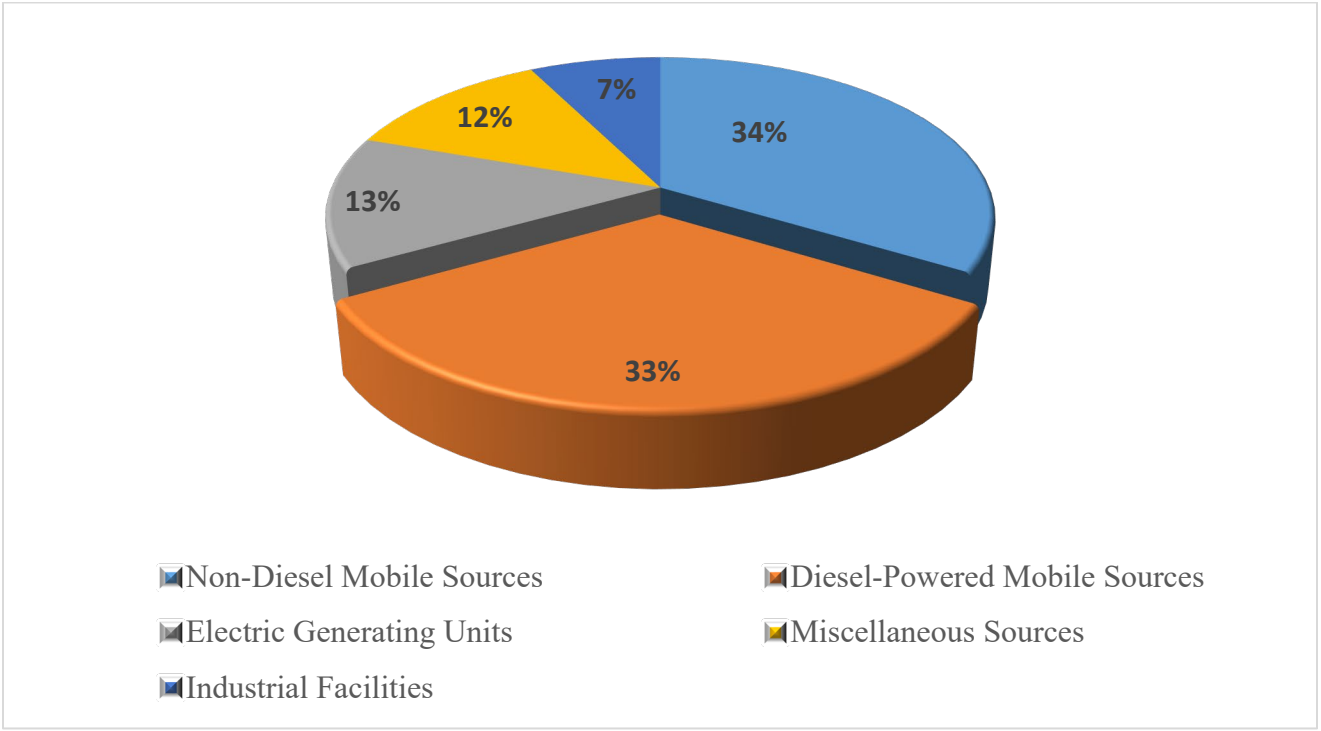


Figure 2. Distribution by County for All NO_X Emissions in Florida (2017)

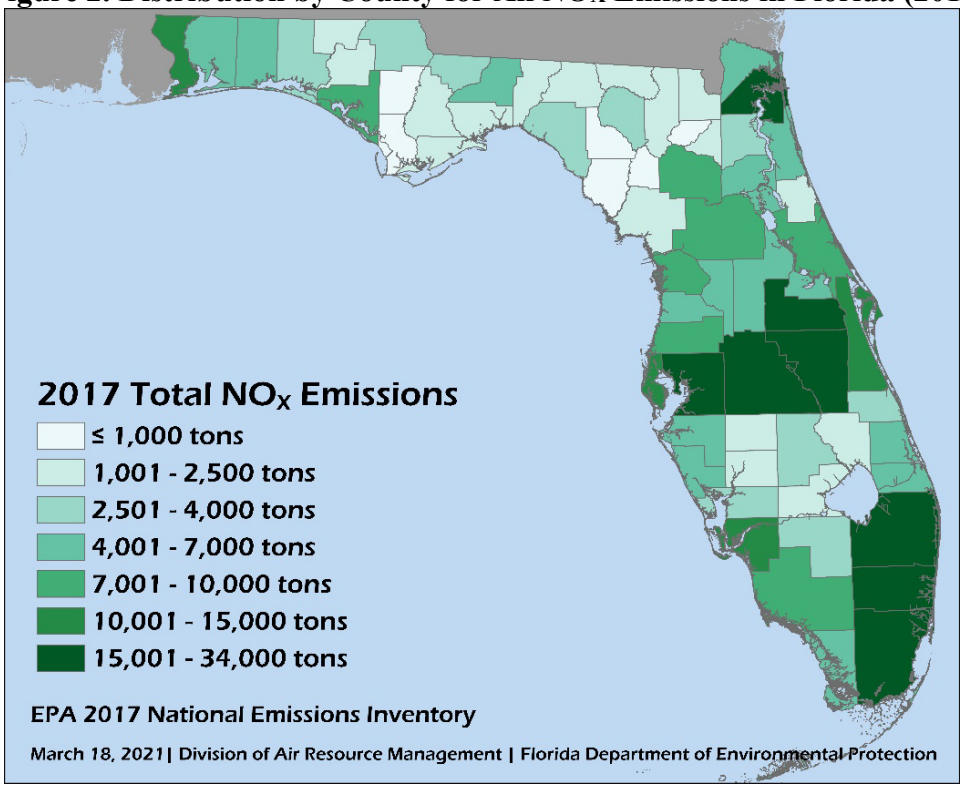


Figure 3 shows the main categories of NO_X emissions from diesel-powered mobiles sources. Figure 4 shows mobile sources of NO_X distributed by county. Of the 194,638 tons of NO_X emitted from diesel-powered mobile sources, the sources break down into the following specific subcategories:

- 85,782 tons from on-road diesel heavy-duty vehicles (i.e., tractor trailers);
- 46,217 tons from non-road diesel equipment (e.g., heavy forklifts);
- 16,743 tons from commercial marine vessels (e.g., cruise and container ships);
- 5,803 tons from on-road diesel light-duty vehicles (i.e., personal vehicles); and
- 5,719 tons from diesel-powered locomotives (e.g., switcher locomotives).

Figure 2. Percent Distributions of Diesel-Powered Mobile Source NOx Emissions (2017)

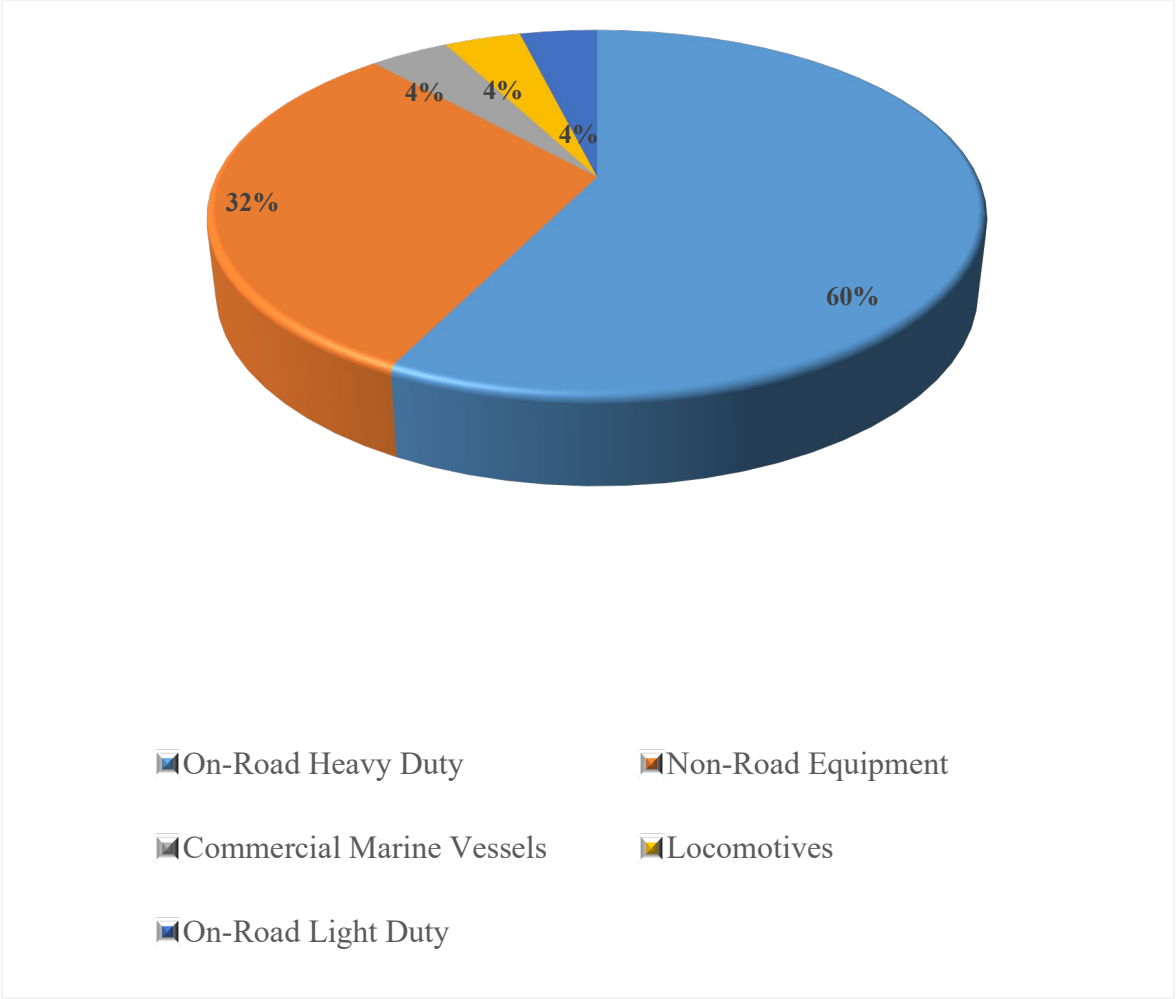
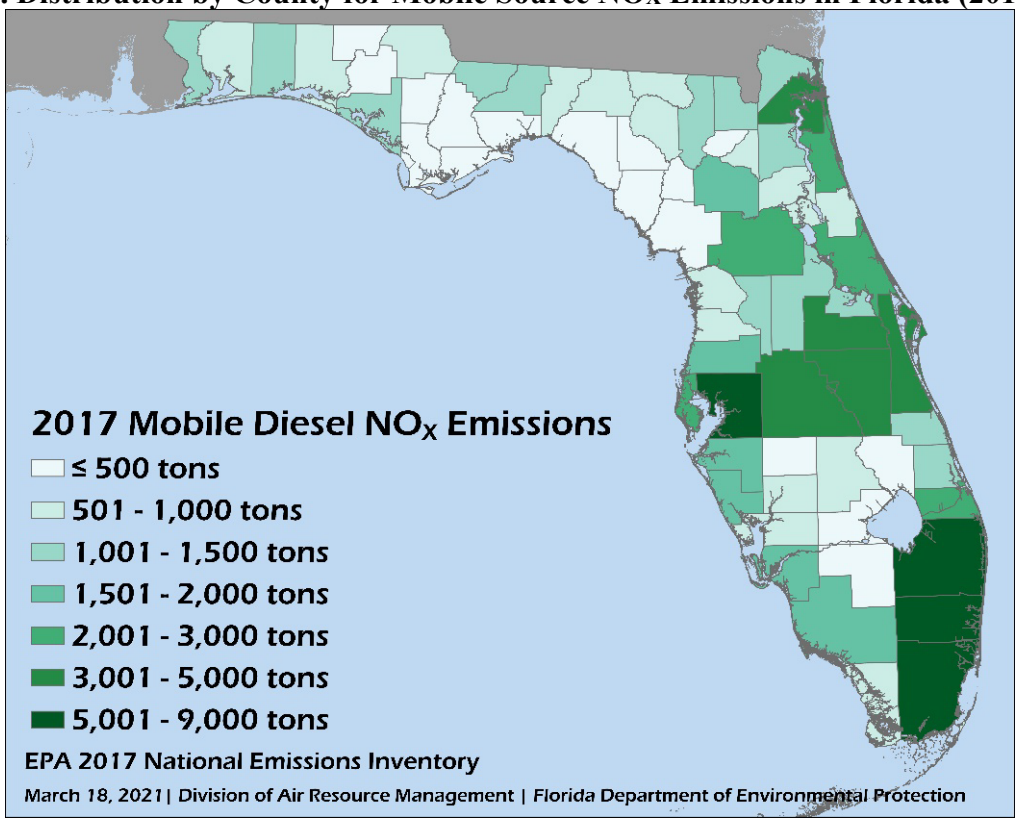


Figure 4. Distribution by County for Mobile Source NO_X Emissions in Florida (2017)



The 2017 NEI indicates that Florida's total emissions of fine particulate matter ($PM_{2.5}$) from mobile sources is 14,295 tons. Approximately 59 percent of this total is from diesel-powered mobile sources including:

- 4,349 tons from on-road diesel heavy duty vehicles;
- 3,305 tons from non-road diesel equipment;
- 372 tons from commercial marine vessels;
- 164 tons from diesel-powered locomotives; and
- 250 tons from on-road diesel light duty vehicles.

Florida's ambient monitoring network for $PM_{2.5}$ shows that there are no areas of the state exceeding either the annual or 24-hour $PM_{2.5}$ NAAQS.

The 2017 NEI indicates that Florida's total emissions of coarse particulate matter (PM_{10}) from mobile sources is 23,381 tons. Approximately 49 percent of this total is from diesel-powered mobile sources including:

- 7,087 tons from on-road diesel heavy duty vehicles;
- 7,087 tons from non-road diesel equipment;
- 392 tons from commercial marine vessels;
- 169 tons from diesel-powered locomotives; and
- 368 tons from on-road diesel light duty vehicles.

Florida's ambient monitoring network for PM_{10} shows that there are no areas of the state exceeding the 24-hour PM_{10} NAAQS.

Overall trends in the state's air quality are good. There does, however, remain work to address local impacts of emissions from older diesel engines, which are projected to remain a component of commercial and government operated vehicle fleets for many years. Encouraging voluntary measures with the aid of grant funding to address related air quality impacts is important to Florida's broader goal of improving air quality for the state's citizens and visitors.

Additionally, prioritizations for project-specific funding through the DERA program will be, to the greatest extent possible, based on project types not prioritized in the Department's Mitigation Plan through the Volkswagen Settlement. Florida's Mitigation Plan prioritizes School, Transit, and Shuttle Bus replacements (70 percent of funding), and the installation of Electric Vehicle Charging Infrastructure (15 percent of funding). The third and final priority is the state's participation in the DERA program, which represents the remaining 15 percent of funding from the Volkswagen Settlement. The Mitigation Plan specifies that the Department will prioritize replacement of diesel units with electric or alternative fuels where possible. Due to the disparity of upfront costs to purchase electric school and transit buses compared to diesel, and the goal to reduce NO_X to the greatest extent practicable, the Department will aim to select DERA projects with the greatest per project NO_X reduction when electric and/or alternative fuel replacement options are not possible. Marine vessel engine replacements and switcher locomotive replacements, along with certain nonroad repower options, have been proven to have the greatest per-project NO_X emissions reduction. Therefore, this next round of DERA funding will focus on port and/or other commerce related projects.

VEHICLES AND TECHNOLOGIES:

As of the date of this submittal, the Department has identified a need for port and other commerce related projects for this round of DERA funding. Through stakeholder engagement and recent success in funding a marine engine replacement project and port drayage trucks, the Department has identified the following port projects for consideration:

- Marine engines, including ferries, tugs, and pilot vessels
- Nonroad equipment
- Switcher locomotives
- Port drayage trucks
- Medium-duty and heavy-duty trucks
- Shorepower projects

The Department selected these projects based on the previously mentioned prioritizations in the Florida Mitigation Plan, as well as the recent success funding marine engine and port drayage truck replacement projects.

ROLES AND RESPONSIBILITIES:

The Department will work with entities identified during a Notice of Funding Availability to take place before the end of 2022. The Department may elect to use Trust Funds to leverage resources beyond the state voluntary match. As the lead agency designated by the Florida Governor under the Trust, the Department will be responsible for providing the incentive match from the Trust. All

cost sharing requirements with project partners will be evaluated to meet minimum DERA guidelines but may be increased depending on the extent of interest from project partners. The Department's DERA Program will consider asking project partners to increase their cost share amount which will allow for the possibility of more DERA project partners and ultimately more units being retrofitted, repowered, or replaced. The Department's Division of Air Resource Management will be responsible for managing the state's DERA program including contract management and purchasing. The Department's Bureau of Finance and Accounting within the Division of Administrative Services will submit to EPA grant drawdown requests after projects are completed.

TIMELINE AND MILESTONES:

The Department intends to identify a list of partners for the 2022 DERA program in late 2022. The Department will then develop grant agreements with the selected project partner or partners in late 2022 to early 2023. The Department expects this round of funding to follow this general timeline:

Next Round of DERA Project(s)

- Fall 2022 – Execute grant agreements for 2022 DERA projects.
- Early 2023 – Deadline for 2021 DERA project partners to select vendors for the project.
- May 2023 – Department conducts program evaluation to ensure progress on selected project or projects.
- June 2023 – 2022 DERA project partner or partners complete all work under the grant agreement and provide all required documentation to the Department thereby becoming eligible for reimbursement. Department reimburses project partners for completed work pursuant to the grant agreement or agreements. Once reimbursements have been paid to the project partners, the Department will prepare and submit a reimbursement package to EPA.
- Fall 2023 – Execute grant agreements for 2022 DERA projects.
- Early 2024 – Deadline for FY 2023 project partners to select vendors for the project.
- May 2024 – Department conducts program evaluation to ensure progress on selected project or projects.
- June 2024 – FY 2023 project partner or partners complete all work under the grant agreement and provide all required documentation to the Department thereby becoming eligible for reimbursement. Department reimburses project partners for completed work pursuant to the grant agreement or agreements. Once reimbursements have been paid to the project partners, the Department will prepare and submit a reimbursement package to EPA.

DERA PROGRAMMATIC PRIORITIES:

Projects funded under the DERA grants will align with EPA's programmatic priorities of achieving significant reductions in diesel emissions exposure from engines operating in areas with greater local air quality concerns relating to diesel vehicle emissions. These areas include places where Port projects are found (i.e., dense urban settings on coastal waterways at which numerous Port commerce units operate). As of the date of this submittal, the Department is evaluating Port projects with potential to address emissions taking place on land and units in the

water. These emissions reductions will benefit port workers, and, at some ports, also benefit passengers of vessels which are based in the port. Additionally, most of Florida's ports are located in areas closer to the NAAQS for ozone.

EPA'S STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS: Florida's 2022 DERA grant program will fund mitigation projects consistent with EPA's Strategic Plan for DERA programs to reduce local and regional air pollution from criteria pollutants and air toxics. The Department will utilize EPA's Diesel Emissions Quantifier (DEQ – available at www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq), among other tools, to quantify the emission reductions for each project. The Department will also utilize DEQ-modeled outputs, including the number of engines replaced, and document related outreach and communication efforts to link activities under Florida's 2022 DERA grant program to EPA's Strategic Plan. The example of a potential project below shows the relative NO_X and PM reductions for a ferry vessel when repowered with engines that meet new standards.

Ferry Vessel (Four 1,800 HP Tier 0 engines with 1,250 hours of annual operation each)

- Eligible Unit: 54.862 tons/year of NO_X and 1.0703 tons/year of PM
- New Unit: 29.785 tons/year of NO_X and 0.4067 tons/year of PM
- Percent Reduced: 47% in NO_X and 62% in PM

SUSTAINABILITY OF THE PROGRAM:

The Department maintains a website that contains records related to past DERA-related projects: https://floridadep.gov/air/air-director/content/diesel-emissions-reduction-act-dera-florida.

The Department also published a website relating to the Trust: https://floridadep.gov/volkswagen

Throughout the administration of Florida's 2021 DERA State Grant program, the Department will maintain a publicly accessible website and repository of data and information obtained through various outreach and procurement related activities. The Department anticipates utilizing the DERA Option under the Volkswagen Partial Consent Decree over the duration of programmatic activities related to implementation of the Volkswagen Environmental Mitigation Trust. The Department expects that DERA-related projects may occur over multiple years, and the benefits of such projects will be compounded by association with larger-scale diesel emission reduction and NOX mitigation activities under the Volkswagen Environmental Mitigation Trust. The Department is committed to identifying, developing, and administering projects that maximize the environmental benefits that accrue through targeted diesel emission reduction efforts, consistent with the requirements of the Volkswagen Partial Consent Decree and DERA program. All projects funded through these programs will be documented and archived on a publicly available website, and they may be featured in targeted public communication efforts through web-based and conventional media outlets at both a local and state level.

****

BUDGET NARRATIVE

2022 Itemized Project Budget

Budget Category	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
			VW Mitigation Trust Funds	Other Funds	
1. Personnel	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0
3. Travel	0	0	0	0	0
4. Equipment	0	0	0	0	0
5. Supplies	0	0	0	0	0
6. Contractual	0	0	0	0	0
7. Other	618,977.00	TBD	$412,651	0	$1,031,628
8. Total Direct Charges (sum 1-7)	618,977.00	TBD	$412,651	0	$1,031,628
9. Indirect Charges	0	0	0	0	0
10. Total (Indirect + Direct)	618,977.00	TBD	$412,651	0	$1,031,628
11. Program Income					

Explanation of Budget Framework

- ***Personnel***

The Department does not intend to spend any DERA funds to support personnel expenses incurred during the administration of Florida's 2022 DERA State Grant program. Work associated with the DERA program will be assumed by current Department staff.

- ***Fringe Benefits***

The Department does not intend to spend any DERA funds to cover fringe benefit costs incurred during the administration of Florida's 2022 DERA State Grant program.

- ***Travel***

The Department does not intend to spend any DERA funds on travel costs incurred during the administration of Florida's 2022 DERA State Grant program. Travel and other costs associated with the Department's attendance at the Southeast Diesel Collaborative have been budgeted within Department's existing budget and will not be funded by the DERA program.

- ***Equipment***

The Department intends to provide DERA funds (and associated Volkswagen Environmental Mitigation Trust Funds) though grant agreement relationships with program partners that have eligible projects under the DERA program. Once partners and projects have been identified, the state will comply with the state's procurement guidelines, if applicable. The Department will attempt to spend all funding on the purchase of equipment to replace old diesel equipment.

- ***Supplies***

The Department does not intend to spend any DERA funds on supply costs incurred during the administration of Florida's 2022 DERA State Grant program.

- ***Contractual***

The Department does not intend to spend any DERA funds on contractual costs incurred during the administration of Florida's 2022 DERA State Grant program.

- ***Other***

The Department intends to spend DERA funds on equipment during the administration of Florida's 2022 DERA State Grant program.

- ***Indirect Charges***

The Department does not intend to spend any DERA funds on indirect charges incurred during the administration of Florida's 2022 DERA State Grant program.

Administrative Costs Expense Cap

States and territories must demonstrate that no more than 15% of a state's or territory's total project costs are being used to cover administrative costs as identified in OMB Circular A-87 Appendix B (e.g. personnel, benefits, travel, supplies). Total project costs include the federal share as well as any cost-share provided by the state. However, Regions have the discretion to allow state matching funds to exceed the 15% cap if the state provides justification for unique circumstances. The 15% maximum does not include indirect cost rates or funds assigned to projects, and total cost for the budget period.

The Department does not intend to spend any DERA funding on administrative costs.

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.

Florida plans to utilize matching funds and potentially overmatching funds from the Volkswagen Mitigation Trust for Florida's state match. In addition, the Department will require that all project partners meet the minimum DERA cost share requirements. As stated above, the Department may increase the level of cost share required by project partners. The Department will require that project partners meet all applicable cost-share requirements as specified in the State Clean Diesel Grant Program Information Guide.

Funding Partnerships

If a DERA grant recipient intends to fund target fleets that they do not own and operate, they have the option to (1) make a **subaward** or (2) provide **participant support costs** to a project partner. Both options can fund a project partner's equipment and installation costs, but only subawards can fund a project partner's direct and indirect costs such as personnel and travel. If the DERA grant recipient is only funding a project partner's equipment and installation costs, they may instead choose to provide participant support costs rather than a subaward to avoid the extensive subaward monitoring and management requirements.

For more information on categorizing costs for funding partnerships, please refer to Section XIII of the Program Guide.

The Department does not anticipate activities that qualify under this heading.