APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification
MN Phase 3 DERA 7
Funding Request #31

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary Minnesota

Lead Agency Authorized to Act on Behalf of the Beneficiary Minnesota Pollution Control Agency (MPCA)
(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:	MN Phase 3 DERA 7
Beneficiary's Project ID:	R323VD07
Funding Request No.	*(sequential)* 31
Request Type: **(select one or more)**	☐ Reimbursement ■ Advance ☐ Other (specify): _____
Payment to be made to: **(select one or more)**	■ Beneficiary ☐ Other (specify): Minnesota Pollution Control Agency
Funding Request & Direction (Attachment A)	■ Attached to this Certification ☐ To be Provided Separately

SUMMARY

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

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** Minnesota **, 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: 4/30/25

David J. Benke
Division Director

Minnesota Pollution Control Agency

[LEAD AGENCY]

for

Minnesota

[BENEFICIARY]

ATTACHMENT B
Minnesota Funding Application 31 – Phase 3 MN DERA 7

PROJECT MANAGEMENT PLAN
PROJECT SCHEDULE AND MILESTONES

Milestone	Date
Request for Proposals announced (Phase 3 MN DERA 7)	Oct 23, 2024
Request for Proposal Closing – Application Deadline (Phase 3 MN DERA 7)	Dec 20, 2024
MPCA selects potential grant recipients from eligible application pool	Feb 2025
MPCA submits Funding Request to Trustee – Appendix D-4: Beneficiary Eligible Mitigation Action Certification including Attachments	April 30, 2025
Trustee Acknowledges Receipt of Funding Request	Receipt from Trustee
Trustee Allocates Share of State Funds	Transfer date
Grant agreements signed with selected entities	CY 2025, Q4
Grantee provides proof of installation, invoices and other documents required for reimbursement	CY 2025, Q4 – CY 2027, Q4
MPCA reviews, requests corrections if necessary, certifies project completion, and provides reimbursement	CY 2025, Q4 – CY 2027, Q4
MPCA Reports to the Trustee on the status of and expenditures with Mitigation Actions completed and underway.	Within 6 months of first disbursement: January 30 and July 30 thereafter

Budget Category	Total Project Budget	Share of Total Budget to be Funded by the Trust	Share of Total Budget paid by Federal DERA Program	Cost-Share, paid by fleet owners
1. Equipment Expenditure	$12,498,354	$2,700,000	$374,397	$9,423,957
2. Contractor Support (Provide List of Approved Contractors as Attachment with approved funding ceilings)	$100,000	$0	$100,000	$0
3. Sub recipient Support	$0	$0	$0	$0
4. Administrative[1]	$144,419	$0	$144,419	$0
Project Totals	$12,742,773	$2,700,000	$618,816	$9,423,957
Percentage	100%	21.2%	4.9%	73.9%

PROJECT BUDGET

[1] Subject to Appendix D-2 15% administrative cap

PROJECTED TRUST ALLOCATIONS

	2018	2019	2020	2021	2022	2023	2024	2025
1. Anticipated Annual Project Funding Request to be paid through the Trust								$2,700,000
2. Anticipated Annual Cost Share								$10,042,773
3. Anticipated Total Project Funding by Year (line 1 plus line 2)								$12,742,773
4. Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation	$2,350,000	$7,401,110	$1,871,242	$6,475,586	$5,519,112	$13,084,559	$1,007,216.25	$0
5. Current Outstanding Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation								$4,900,000
6. Current Beneficiary Project Funding to be paid through the Trust (line 1)								$2,700,000
7. Total Funding Approved (plus pending) for Beneficiary Eligible Mitigation Actions, inclusive of Current Action (sum of line 4, 5 and 6)	$2,350,000	$7,401,110	$1,871,242	$6,475,586	$5,519,112	$13,084,559	$1,007,216.25	$7,600,000
8. Beneficiary Share of Estimated Funds Remaining in Trust (Market Value of last statement date from Online Portfolio)	$47,133,334	$44,864,077	$38,437,993	$37,651,313	$31,187,749	$19,062,580	$15,730,948.58	$15,833,512.29
9. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 8 minus lines 5 and 6)	$44,864,077	$38,437,993	$37,651,313	$31,187,749	$27,317,301	$14,232,742	$14,723,732.33	$8,233,512.29

ATTACHMENT C
DETAILED PLAN FOR REPORTING ON
ELIGIBLE MITIGATION ACTION IMPLEMENTATION

The Minnesota Pollution Control Agency (MPCA) will provide detailed reporting on this Environmental Mitigation Trust project in 2 ways:

1. Timely updates to MPCA'sVolkswagen (VW) Environmental Mitigation Trust webpage (www.pca.state.mn.us/vw) ;
2. Minnesota's semiannual reporting obligation to Wilmington Trust (the "Trustee")

MPCA maintains a VW Environmental Mitigation Trust specific webpage that has been designed to support public access and limit burden for the general public. The MPCA's VW specific webpage can be found at www.pca.state.mn.us/vw. Timely updates to the webpage will inform the general public on the projects' status as well as when these projects have been completed.

Subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries details Minnesota's 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."

MPCA shall, in the next semiannual report following the Trustee's approval of this project, 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
MN DERA 7
DETAILED COST ESTIMATES FROM SELECTED OR POTENTIAL VENDORS FOR EACH PROPOSED EXPENDITURE EXCEEDING $25,000

Project owners were asked to submit the total cost for each new project in their grant application.

Listed below are detailed equipment cost estimates for projects that are projected to have a grant expenditure above $25,000.

DERA 7 Projects

Project	**Projected VW + DERA Grant Equipment Expenditure**	**Projected total equipment cost**
Rubber Tire Loader/Dozer	$172,164	$688,655
Rubber Tire Loader/Dozer	$164,250	$657,000
Rubber Tire Loader/Dozer	$172,164	$688,655
Rubber Tire Loader/Dozer	$168,313	$673,250
Rubber Tire Loader/Dozer	$164,250	$657,000
Rubber Tire Loader/Dozer	$168,313	$673,250
Rubber Tire Loader/Dozer	$168,313	$673,250
Off Highway Truck	$220,250	$881,000
Rubber Tire Loader/Dozer	$181,944	$727,777
Excavator	$168,007	$672,030
Mining Equipment	$287,000	$1,148,000
Mining Equipment	$174,616	$737,900
Excavator	$87,500	$350,000
Other Material Handling Equipment	$246,181	$984,725
Other Material Handling Equipment	$219,076	$876,302
Rubber Tire Loader/Dozer	$161,122	$1,074,145
Terminal tractor	$150,936	$335,415

ATTACHMENT E
Minnesota Funding Application 31 – Phase 3 MN DERA 7

DERA Option
Approved EPA Proposal

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2025

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. DERA Federal		$ 655,976.00	$	$ 618,816.00	$	$ 1,274,792.00
2. DERA Voluntary Match VW Mitigation Trust Fund			1,007,216.00		1,950,000.00	2,957,216.00
3. DERA Mandatory Cost Share			3,866,443.00		4,246,809.00	8,113,252.00
4. DERA Other Voluntary State Match			17,441.00		19,109.00	36,550.00
5. Totals		$ 655,976.00	$ 4,891,100.00	$ 618,816.00	$ 6,215,918.00	$ 12,381,810.00

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY (1) DERA Federal	(2) DERA Voluntary Match VW Mitigation Trust Fund	(3) DERA Mandatory Cost Share	(4) DERA Other Voluntary State Match	Total (5)
a. Personnel	$ 178,864.00	$	$	$	$ 178,864.00
b. Fringe Benefits	60,814.00				60,814.00
c. Travel					
d. Equipment					
e. Supplies					
f. Contractual					
g. Construction					
h. Other	998,562.00	2,957,216.00	8,113,252.00		12,069,030.00
i. Total Direct Charges (sum of 6a-6h)	1,238,240.00	2,957,216.00	8,113,252.00		$ 12,308,708.00
j. Indirect Charges	36,552.00			36,550.00	$ 73,102.00
k. TOTALS (sum of 6i and 6j)	$ 1,274,792.00	$ 2,957,216.00	$ 8,113,252.00	$ 36,550.00	$ 12,381,810.00
7. Program Income	$	$	$	$	$

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SECTION C - NON-FEDERAL RESOURCES

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. DERA Federal	$	$	$	$
9. DERA Voluntary Match VW Mitigation Trust Fund	$ 2,957,216.00	$	$	$ 2,957,216.00
10. DERA Mandatory Cost Share	$	$ 8,113,252.00	$	$ 8,113,252.00
11. DERA Other Voluntary State Match	$	$	$ 36,550.00	$ 36,550.00
12. TOTAL (sum of lines 8-11)	$	$ 8,113,252.00	$ 36,550.00	$ 11,107,018.00

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	$ 637,396.00	$ 159,349.00	$ 159,349.00	$ 159,349.00	$ 159,349.00
14. Non-Federal	$ 5,553,509.00	1,388,377.00	1,388,377.00	1,388,377.00	1,388,378.00
15. TOTAL (sum of lines 13 and 14)	$ 6,190,905.00	$ 1,547,726.00	$ 1,547,726.00	$ 1,547,726.00	$ 1,547,727.00

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (YEARS) (b)First	(c) Second	(d) Third	(e) Fourth
16. DERA Federal	$ 637,396.00	$	$	$
17. DERA Voluntary Match VW Mitigation Trust Fund	1,478,608.00			
18. DERA Mandatory Cost Share	4,056,626.00			
19. DERA Other Voluntary State Match	18,275.00			
20. TOTAL (sum of lines 16 - 19)	$ 6,190,905.00	$	$	$

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges: $12,308,708

22. Indirect Charges: $73,102

23. Remarks: MPCA's FY25 approved indirect rate of 31.20% is used for budgeting purposes. Only actual, approved rates for each year will be assessed against appropriate expenditures.

United States Environmental Protection Agency

Office of Transportation and Air Quality

September 2024

2023-2024 Diesel Emissions Reduction Act (DERA) State Program
Work Plan and Budget Narrative Template

Summary page

Project Title: State of Minnesota Clean Diesel Program

Project Manager and Contact Information

Organization Name: Minnesota Pollution Control Agency (MPCA)

Project Manager: Cindy Osborn

Mailing Address: 520 Lafayette Road, ST. Paul, MN 55155

Phone: 218-302-6648

Grant Number: DS00E65307-0

Email: cynthia.osborn@state.mn.us

Project Budget Overview:

Table 1. Summary of federal, mandatory cost share, and voluntary state match (VW and other state funding) 2022-2024.

	2022*	2023	2024	Total	Total For FFY23 and FFY24
EPA Base Allocation	$361,967	$437,317	$412,544	$1,211,828	$849,861
Total State Contribution *(Cost share - broken down below)*	$2,739,737	$4,891,070	$8,056,933	$15,687,770	$12,948,033
Voluntary Cost Share	$418,544	$1,007,216	$2,700,000	$4,125,760	$3,707,216
Mandatory Cost Share	$2,285,968	$3,866,443	$5,337,824	$11,490,235	$9,204,267
Other State Cost Share	$35,225	$17,441	$19,109	$71,775	$36,550
EPA Match Bonus *(If applicable*)	$180,984	$218,659	$206,272	$605,915	$424,931
Total EPA Allocation *(base plus match bonus if applicable)*	**$496,220**	**$655,976**	**$618,816**	**$1,817,743**	**$1,274,792**
TOTAL Project Cost *(EPA Allocation plus State contribution)*	$3,709,601	$5,547,076	$6,834,734	$17,505,513	$14,222,825

3 Year Project Period for 2023-2024 State DERA Grants

Full Project Period: October 1, 2023 - September 30, 2026

FY2023 First Phase: October 1, 2023 – September 30, 2024

FY2024 Incremental Amendments: October 1, 2024 – September 30, 2025

2023-2024 Project Period Close Out: September 30, 2026

Project Summary for 2023-2024 State DERA Grants

The primary focus for FFY 2023 vehicle replacements for seven all-electric airport support equipment pieces and one off-highway truck, 1 other material handler, 4 rubber tire dozer/loaders, and 2 skid steers with EPA certified clean diesel engines. For FFY 2024, the projected focus will be on vehicle replacements for 9 rubber tire dozer/loaders, 2 excavators, 2 mining equipment, 1 off-highway truck, and 2 other material handlers with EPA certified clean diesel vehicles and 1 electric terminal tractor terminal tractor.

Summary statement

In past years, MPCA has offered a broad range of on-road and off-road diesel categories in its DERA grant program. Because the Volkswagen settlement does not allow funding for non-road construction and certain other kinds of projects that are allowed in DERA, we will be focusing MPCA's DERA program on these projects and fill the gaps left by the VW consent decree. MPCA will seek eligible projects including, but not limited to marine engines, locomotives, trailer refrigeration units, terminal tractors, drayage trucks, and off-road engines, and equipment or vehicles used in construction, handling of cargo, agriculture, mining, or energy production. On-road idle reduction and other eligible technology may also be made eligible under this funding.

More information on our full VW program can be found here: https://www.pca.state.mn.us/air-water-land-climate/volkswagen-settlement-grants. Information on the off-road DERA work can be found here: https://www.pca.state.mn.us/air-water-land-climate/clean-heavy-duty-off-road-equipment.

September 2024

Summary of projected projects for FFY 2024 awards

Table 2. Awarded equipment projects for 2024

Project	Sector	Type	Equipment Cost	EPA funds (federal)	VW Settlement funds[1] (federal)	Maximum EPA cost share %	Grantee-requested EPA Cost Share[2] %	Mandatory match	DERA contractor fee[3]
Rubber Tire Loader/ Dozer	Mining	Vehicle Replacement-Diesel	$688,655		$172,164	25%	25%	$516,491	$10,000
Rubber Tire Loader/ Dozer	Agriculture	Vehicle Replacement-Diesel	$657,000		$164,250	25%	25%	$492,750	$10,000
Rubber Tire Loader/ Dozer	Mining	Vehicle Replacement-Diesel	$688,655		$172,164	25%	25%	$516,491	$10,000
Rubber Tire Loader/ Dozer	Agriculture	Vehicle Replacement-Diesel	$673,250		$168,313	25%	25%	$504,938	$10,000
Rubber Tire Loader/ Dozer	Agriculture	Vehicle Replacement-Diesel	$657,000		$164,250	25%	25%	$492,750	$10,000
Rubber Tire Loader/ Dozer	Agriculture	Vehicle Replacement-Diesel	$673,250		$168,313	25%	25%	$504,938	$10,000

Project	Sector	Type	Equipment Cost	EPA funds (federal)	VW Settlement funds[1] (federal)	Maximum EPA cost share %	Grantee-requested EPA Cost Share[2] %	Mandatory match	DERA contractor fee[3]
Rubber Tire Loader/ Dozer	Agriculture	Vehicle Replacement-Diesel	$673,250		$168,313	25%	25%	$504,938	$10,000
Off Highway Truck	Mining	Vehicle Replacement-Diesel	$881,000		$220,250	25%	25%	$660,750	$10,000
Rubber Tire Loader/ Dozer	Mining	Vehicle Replacement-Diesel	$727,777		$181,944	25%	25%	$545,833	$10,000
Excavator	Agriculture	Vehicle Replacement-Diesel	$672,030	$100,000	$68,007	25%	25%	$504,022	$10,000
Mining Equipment	Mining	Vehicle Replacement-Diesel	$1,148,000		$287,000	25%	25%	$861,000	
Mining Equipment	Mining	Vehicle Replacement-Diesel	$737,900		$174,616	25%	24%	$563,284	
Excavator	Construction	Vehicle Replacement-Diesel	$350,000	$87,500		25%	25%	$262,500	
Other Material Handling Equipment	Industrial	Vehicle Replacement-Diesel	$984,725	$186,897	$59,284	25%	25%	$738,544	
Other Material Handling Equipment	Industrial	Vehicle Replacement-Diesel	$876,302		$219,076	25%	25%	$657,227	

Project	Sector	Type	Equipment Cost	EPA funds (federal)	VW Settlement funds[1] (federal)	Maximum EPA cost share %	Grantee-requested EPA Cost Share[2] %	Mandatory match	DERA contractor fee[3]
Rubber Tire Loader/ Dozer	Mining	Vehicle Replacement-Diesel	$1,074,145		$161,122	25%	15%	$913,023	
Terminal tractor	Industrial	Vehicle Replacement-Electric	$335,415		$150,936	25%	45%	$184,479	
Totals			$12,498,354	$374,397	$2,700,000			$9,423,957	$100,000

[1] VW Settlement funds are combined with EPA Funds as federal funds, per the DERA Option.

[2] Some grantees request a lower federal cost share than allowed; final equipment costs may affect this number

[3] Federal EPA funds used as contractor fees are not used to calculate cost share

[4] Final mandatory match (private) will change from budgeted based on completed final project costs

Summary of awarded projects for FFY 2023 awards

Table 3. Final equipment projects awarded in FFY 2023, with funding rounded to nearest whole dollar. Shaded rows are completed projects.

Project	Sector	Type	Equipment Cost	EPA funds (federal)	VW Settlement funds[1] (federal)	Maximum EPA cost share %	Grantee-requested EPA Cost Share[2]	Mandatory match	DERA contractor fee[3]
Off-Highway Truck	Construction	Vehicle Replacement-Diesel	$769,850		$192,463	25%	25%	$577,388	$10,000
Rubber Tire Loader	Agriculture	Vehicle Replacement-Diesel	$716,024		$164,645	25%	23%	$551,379	$10,000
Other Material Handling Equipment	Industrial	Vehicle Replacement-Diesel	$674,580	$58,828	$152,385	25%	25%	$633,637	$10,000

Project	Sector	Type	Equipment Cost	EPA funds (federal)	VW Settlement funds[1] (federal)	Maximum EPA cost share %	Grantee-requested EPA Cost Share[2]	Mandatory match	DERA contractor fee[3]
Rubber Tire Loader	Agriculture	Vehicle Replacement-Diesel	$710,001		$165,908	25%	23%	$544,093	$10,000
Rubber Tire Loader	Agriculture	Vehicle Replacement-Diesel	$716,948		$165,908	25%	23%	$551,040	$10,000
Rubber Tire Loader	Agriculture	Vehicle Replacement-Diesel	$716,948		$165,908	25%	23%	$551,040	$10,000
Airport Support Equipment (Tug)	Airport	Vehicle Replacement-All Electric	$75,569	$31,000.00		45%	41%	$44,569	
Airport Support Equipment (Belt Loader)	Airport	Vehicle Replacement-All Electric	$119,022	$49,000.00		45%	41%	$61,244	
Airport Support Equipment (Belt Loader)	Airport	Vehicle Replacement-All Electric	$119,022	$49,000.00		45%	41%	$61,244	
Airport Support Equipment (Belt Loader)	Airport	Vehicle Replacement-All Electric	$119,022	$49,000.00		45%	41%	$61,244	
Airport Support Equipment	Airport	Vehicle Replacement-All Electric	$119,022	$49,000.00		45%	41%	$61,244	

Project	Sector	Type	Equipment Cost	EPA funds (federal)	VW Settlement funds[1] (federal)	Maximum EPA cost share %	Grantee-requested EPA Cost Share[2]	Mandatory match	DERA contractor fee[3]
(Belt Loader)									
Airport Support Equipment (Belt Loader)	Airport	Vehicle Replacement-All Electric	$109,389	$49,000.00		45%	45%	$61,244	
Airport Support Equipment (Belt Loader)	Airport	Vehicle Replacement-All Electric	$109,389	$49,000.00		45%	45%	$61,244	
Skid Steer Loader	Industrial	Vehicle Replacement-Diesel	$82,350	$20,588.00		25%	25%	$61,763	
Excavator	Industrial	Vehicle Replacement-Diesel	$239,000	$59,750.00		25%	25%	$179,250	
Totals			$5,396,136	$464,166	$1,007,216			$4,061,623[4]	$60,000

[1] VW Settlement funds are combined with EPA Funds as federal funds, per the DERA Option.

[2] Some grantees request a lower federal cost share than allowed; final equipment costs may affect this number

[3] Federal EPA funds used as contractor fees are not used to calculate cost share

[4] Final mandatory match (private) will change from budgeted based on completed final project costs

United States Environmental Protection Agency

Office of Transportation and Air Quality

September 2024

Budget Narrative

2023 Itemized project budget

Table 4. Itemized project budget FFY 2023 – numbers rounded to nearest whole dollar

Budget category	EPA federal allocation	Mandatory cost-share (private)	Voluntary match (if applicable)		Line total
			VW Mitigation Trust funds	Other state funds	
1. Personnel	85,350				85,350
2. Fringe benefits	29,019				29,019
3. Travel					
4. Equipment					
5. Supplies					
6. Contractual					
7. Other[1]	524,165	3,866,443	1,007,216		5,397,824
8. Total direct charges (sum 1-7)	**638,534**	**3,866,443**	**1,007,216**		**5,512,193**
9. Indirect charges	17,442			17,441	34,883
10. Total (indirect + direct)	**655,976**	**3,866,443**	**1,007,216**	**17,441**	**5,547,076**
11. Program income					

[1] See Table 3 for details

Explanation of budget framework

Pertinent budget narrative included below.

Personnel

FFY 2023

Budget category	EPA federal allocation	Mandatory cost-share (private)	VW Mitigation Trust funds	Other state funds
Clean Diesel Grants Lead - One Planner Principal State - Annual Salary $85,350 * 1.0 FTE	85,350			

One full time equivalent (FTE) is considered 40 hours/week at $41.03, average, to administer the program, including analysis of emissions and related data, reporting, RFP, application evaluation/scoring, managing funding, contracting process, and project management. This amount is shared over multiple positions, it is not a single position.

Fringe benefits

FFY 2023

Budget category	EPA federal allocation	Mandatory cost-share (private)	VW Mitigation Trust funds	Other state funds
Fringe benefits	29,019			

The actual fringe benefit calculation is 34% of salary, which includes insurance, retirement and FICA.

Other

FFY 2023

Budget category	EPA federal allocation	Mandatory cost-share (private)	VW Mitigation Trust funds	Other state funds
Other	524,165	3,866,443	1,007,216	

The other category funds off-road vehicle and equipment repower and replacement projects. These projects are detailed in Table 3. In January 2024, 15 projects for vehicle replacement were awarded to fleet owners. Nine projects were diesel vehicles to be replaced with Tier 4 final diesel vehicles in the industrial, construction, and agriculture sectors. Six projects are diesel airport support vehicles to be replaced with zero emission battery electric vehicles.

The MPCA has voluntarily dedicated $1,007,216 of VW Settlement funds to the DERA program, which exceeds the DERA grant of $437,317 to qualify for an additional DERA bonus of $218,659. The DERA federal award, DERA match bonus, and Volkswagen Mitigation Trust Funds (VW) are combined and considered “federal funding” under the DERA rule outlined in the VW Settlement and DERA guidelines.

The mandatory match will be paid for by the vehicle (fleet) owners. A competitive request for proposals (RFP) allows eligible fleet owners to replace or repower off-road equipment.

Contractor costs
The MPCA awarded the cost of a contractor for six projects and these costs will be in the "Other" category based upon our conversation with the EPA. This contractor was selected on a competitive per-project basis to carry out EPA verified projects. This amount is budgeted because of the VW public forum session. Per the MPCA's published Phase 2 plan: *"Aggregated applications/grant contractors are eligible under this program. Eligible contractors may request up to 10% for administrative costs above the grant amount requested per equipment with a maximum of up to $10,000 per piece of awarded equipment."*

To ensure fair competition and cost-effectiveness, if a contractor applies on behalf of fleet(s) that individual equipment/engine is evaluated including the contractor cost. Since cost-effectiveness is 40% of the evaluation score this has a large impact on final rank.

The potential contractor(s) are responsible for all the project management aspects: applying for projects on behalf of partner fleet, guiding the partner fleet through the steps of acquiring new equipment and if necessary, destroying old equipment, and submitting reimbursement package to MPCA for grant reimbursement.

The grant agreement between MPCA and contractor(s) would begin once VW funds are received from Trustee and have a deadline of when EPA funds are due.

Indirect charges

FFY 2023

Budget category	EPA federal allocation	Mandatory cost-share (private)	VW Mitigation Trust funds	Other state funds
Indirect charges	17,442			17,441

The indirect charge calculation is 30.5% of personnel and fringe, which is the federal negotiated indirect cost rate. Other state funds are used to match the federal contribution.

Administrative costs expense cap
The MPCA is compliant with the 15% maximum cap on administrative costs. Our budget lines of personnel, fringe, and contractual add up to a total cost of $114,369 which is at 7.4% based on the $1,531,3811 between the federal EPA and state match.

Funding partnerships
The MPCA will follow all applicable EPA guidelines for funding partnerships and plans to only fund Participant Support Costs with grant agreements for equipment and contractor costs directly related to equipment.

The MPCA does not include travel, supplies, equipment, nor contractual expenses in this budget.

2024 Itemized project budget

Table 5. FFY 2024 itemized project budget. These numbers are rounded to the nearest whole dollar.

Budget category	EPA federal allocation	Mandatory Cost-Share (private)	Voluntary match (if applicable)		Line total
			VW Mitigation Trust funds	Other funds	
1. Personnel	93,514				93,514
2. Fringe Benefits	31,795				31,795
3. Travel					
4. Equipment					
5. Supplies					
6. Contractual					
7. Other	474,397	9,423,957	2,700,000		12,598,354
8. Total Direct Charges (sum 1-7)	599,706	9,423,957	2,700,000		12,723,663
9. Indirect Charges	19,110			19,109	38,219
10. Total (Indirect + Direct)	618,816	9,423,957	2,700,000	19,109	12,761,882
11. Program Income					

Explanation of budget framework

Pertinent budget narrative included below.

Personnel

FFY 2024

Budget category	EPA federal allocation	Mandatory cost-share (private)	VW Mitigation Trust funds	Other state funds
Clean Diesel Grants Lead - One Planner Principal State - Annual Salary $93,514 * 1.0 FTE	93,514			

One FTE is considered 40 hours/week at $44.79, average, to administer the program, including analysis of emissions and related data, reporting, RFP, application evaluation/scoring, managing funding, contracting process, and project management. This amount is shared over multiple positions, it is not a single position.

Fringe benefits

FFY 2024

Budget category	EPA federal allocation	Mandatory cost-share (private)	VW Mitigation Trust funds	Other state funds
Fringe benefits	31,795			

The actual fringe benefit calculation is 34% of salary, which includes insurance, retirement and FICA.

Other

FFY 2024

Budget category	EPA federal allocation	Mandatory cost-share (private)	VW Mitigation Trust funds	Other state funds
Other	474,397	9,423,957	2,700,000	

The other category funds off-road vehicle and equipment repower and replacement projects. These estimated projects are detailed in Table 4. The RFP for off-road equipment projects closed in December 2024. It is assumed that projects will be selected in early 2025. Based on previous grant awards the MPCA is estimated to fund 17 pieces of diesel equipment to be replaced with Tier 4 final diesel vehicles from the construction and industrial sectors.

~~The MPCA has a separate rolling RFP for idle-reduction technology for locomotives. It is estimated that 10 idle-reduction technologies for locomotives could be installed.~~

The MPCA has voluntarily dedicated $2,700,000 of VW Settlement funds to the DERA program, which exceeds the DERA grant of $474,397 to qualify for an additional DERA bonus of $206,272. The DERA federal award, DERA match bonus, and Volkswagen Mitigation Trust Funds (VW) are combined and considered "federal funding" under the DERA rule outlined in the VW Settlement and DERA guidelines. The mandatory match will be paid for by the vehicle (fleet) owners. A competitive request for proposals (RFP) allows eligible fleet owners to replace or repower off-road equipment.

Contractor costs

The MPCA estimates awarding the cost of a contractor to the 10 idle reduction projects. These costs are included in the "Other" category based upon our conversation with the EPA. The contractor will be selected on a competitive per-project basis to carry out EPA verified projects. This amount is budgeted because of the VW public forum session. Per the MPCA's published Phase 2 plan: *"Aggregated applications/grant contractors are eligible under this program. Eligible contractors may request up to 10% for administrative costs above the grant amount requested per equipment with a maximum of up to $10,000 per piece of awarded equipment."*

To ensure fair competition and cost-effectiveness, if a contractor applies on behalf of fleet(s) that individual equipment/engine is evaluated including the contractor cost. Since cost-effectiveness is 40% of the evaluation score this has a large impact on final rank.

The potential contractor(s) are responsible for all the project management aspects: applying for projects on behalf of partner fleet, guiding the partner fleet through the steps of acquiring new equipment and if necessary, destroying old equipment, and submitting reimbursement package to MPCA for grant reimbursement.

The grant agreement between MPCA and contractor(s) would begin once VW funds are received from Trustee and have a deadline of when EPA funds are due.

Indirect charges

FFY 2024

Budget category	EPA federal allocation	Mandatory cost-share (private)	VW Mitigation Trust funds	Other state funds
Indirect	19,110			19,109

The indirect charge calculation is 30.5% of personnel and fringe, which is the federal negotiated indirect cost rate. Other state funds are used to match the federal contribution.

Administrative costs expense cap

The MPCA is compliant with the 15% maximum cap on administrative costs. Our budget lines of personnel, fringe, and contractual add up to a total cost of $125,309 which is at 5.2% based on the $2,424,397 between the federal EPA and state match.

Funding partnerships

The MPCA will follow all applicable EPA guidelines for funding partnerships and plans to only fund Participant Support Costs with grant agreements for equipment and contractor costs directly related to equipment.

The MPCA does not include travel, supplies, equipment, nor contractual expenses in this budget.

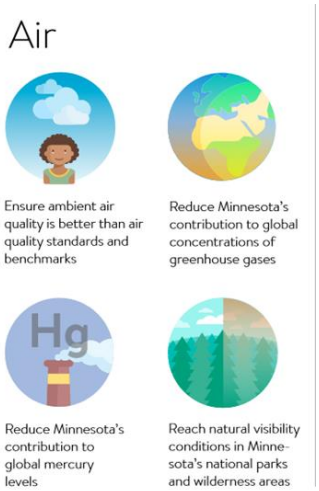
Scope of work

State/territory goals and priorities

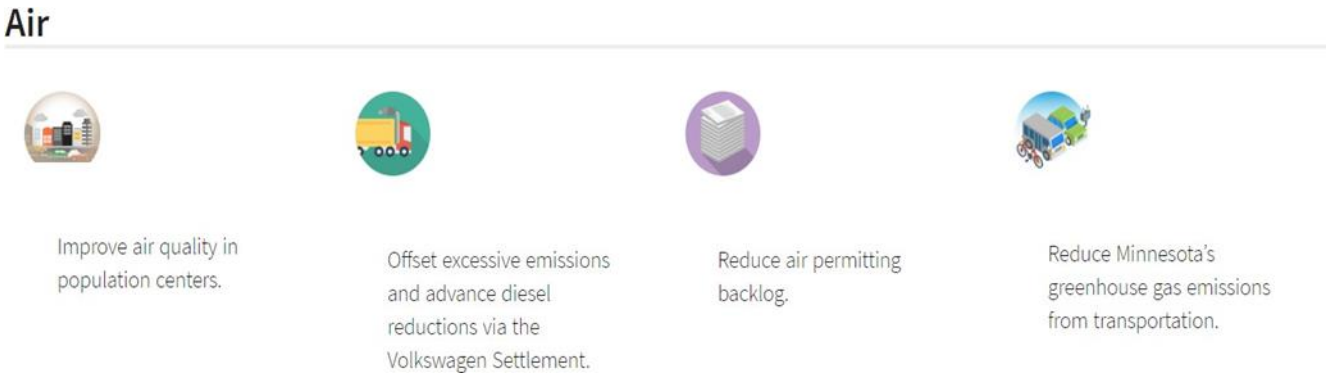
The MPCA's long-term goals related to Air include:

- Ensure ambient air quality is better than air quality standards and benchmarks.
- Reduce Minnesota's contribution to global mercury levels.
- Reduce Minnesota's contribution to global concentrations of greenhouse gases.
- Disproportionate negative impacts from pollution are reduced or prevented.

Several of these Agency-wide goals laid out above dovetail directly with our DERA funding partnered with Minnesota's $47 million in VW funding.



Related to these long-term goals, MPCA's five-year strategic plan charts the agency's direction. Below are the MPCA's Air Strategic Goals:



This DERA and VW funding will be put to work to help achieve 3 of these 4 Agency wide goals:

- Improve air quality on population centers
- Offset excessive emissions and advance diesel reductions via the Volkswagen Settlement
- Reduce Minnesota's greenhouse gas emissions from transportation.

Volkswagen Goals

The Volkswagen goals bridge nicely with this DERA funding. The input MPCA received during the development of Minnesota's Phase 2 (2020-2023) Beneficiary Mitigation Plan (plan) confirmed that we should maintain and continue to strive for the 10-year goals we set out in our Phase 1 plan. MPCA will continue to use the state's settlement funds to support a healthy environment for all Minnesotans and achieve significant emissions reductions across the state, especially in communities most vulnerable to the effects of vehicle pollution. Because 60% of the violating Volkswagens were registered in the Twin Cities metropolitan area and 40% were registered in Greater Minnesota, the funds will again be targeted using the same 60:40 ratio in Phase 2. We will continue to invest in communities disproportionately impacted by air pollution, both in the Twin Cities area and in Greater Minnesota. In developing the grant programs and selecting projects for funding, we will balance project costs with emissions reductions and other benefits.

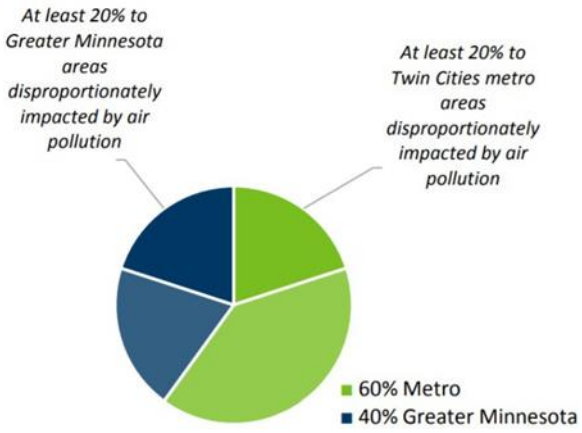
For FFY23, this is the last year of our Phase 2 VW planning. We have begun planning for Phase 3, which begins in 2024, but all signs point to continuing to fund DERA and perhaps even increase funding. In addition, it is possible that we use a specific set-aside for this funding to fund specific projects: locomotive idle reduction technology. While this has not been finalized it looks like that is the direction we are headed. This was identified as by far the most cost-effective method to lower NOx emissions funded in Phase 1 and Phase 2.

Help people and places disproportionately affected by air pollution

Over the course of Minnesota's 10-year VW program (2018-2027), at least 40% of the funds will be invested in areas disproportionately affected by air pollution in Minnesota. Half of this, or at least 20% of the overall funds, will go to the Twin Cities metro area, and the other half (20% of overall funds) to Greater Minnesota.

The VW settlement directs states to consider the potential impact of the projects they fund on areas that "bear a disproportionate share of the air pollution burden within its jurisdiction." MPCA considers areas disproportionately impacted by air pollution to be areas of concern for environmental justice. These areas are:

- Census tracts where more than 50% of residents are people of color or American Indians
- Census tracts where more than 40% of households have an income of less than 185% of the federal poverty level
- Tribal lands



Program Partnerships

Since 2006, the MPCA Clean Diesel Grants Program has leveraged state and federal funds and collaborated with Environmental Initiative, a Clean Air Minnesota (CAM) partner, on Project Green Fleet to reduce diesel emissions across the state. Among other diesel retrofit efforts, Project Green Fleet used

state and private funding to retrofit all 3,108 eligible school buses in Minnesota, significantly reducing the exposure of children to harmful fine particles by 20 to 25- percent.

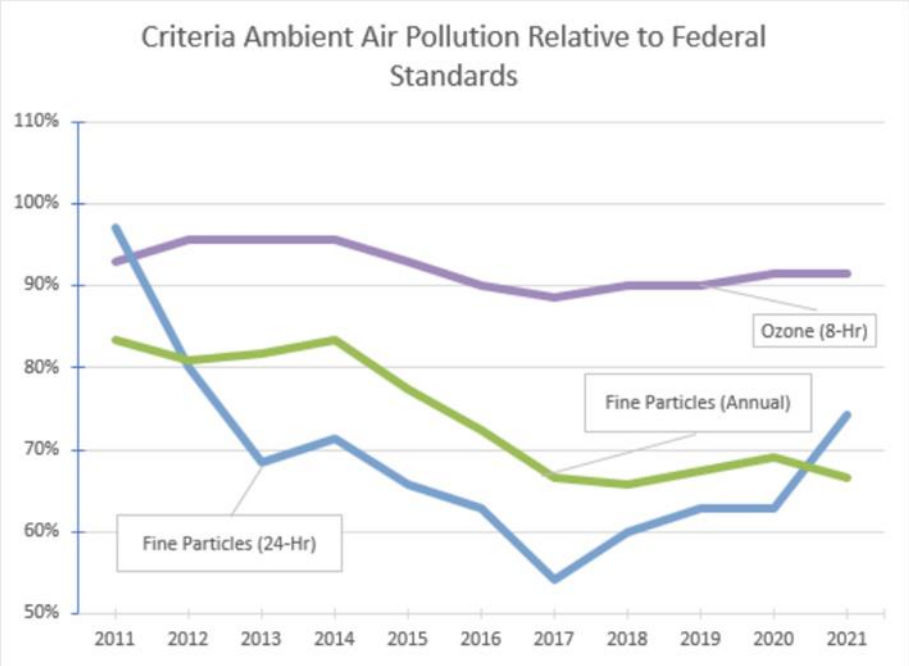
MPCA and Project Green Fleet have made significant strides in upgrading diesel equipment across the state. Looking forward, we will target construction, marine and rail equipment for upgrades through DERA. Diesel construction equipment can be especially old and dirty and may often operate 16-24 hours per day near homes and businesses.

Overall Air Pollution

Minnesota tracks six criteria air pollutants that have federal standards including nitrogen dioxide and particulate matter. Nitrogen oxides and VOCs can react to form ground-level ozone. Ozone and particulate matter have the most impact in Minnesota and can contribute to health issues even below the federal standards.

Regulation and voluntary actions have reduced air pollution over time. Most reductions have come from permitted facilities and electrical generation. Daily fine particle concentrations have increased in recent years due to wildfire smoke. To achieve further improvements in air quality, transportation and neighborhood air sources will need to reduce their emissions. Minnesota meets all current federal standards, but these standards continue to become more stringent over time and require additional state actions to reduce air pollution. In addition, air pollution levels remain elevated in many areas of concern for environmental justice compared to state averages.

Minnesota air pollution compared to select federal ambient air standards, 2011-2021



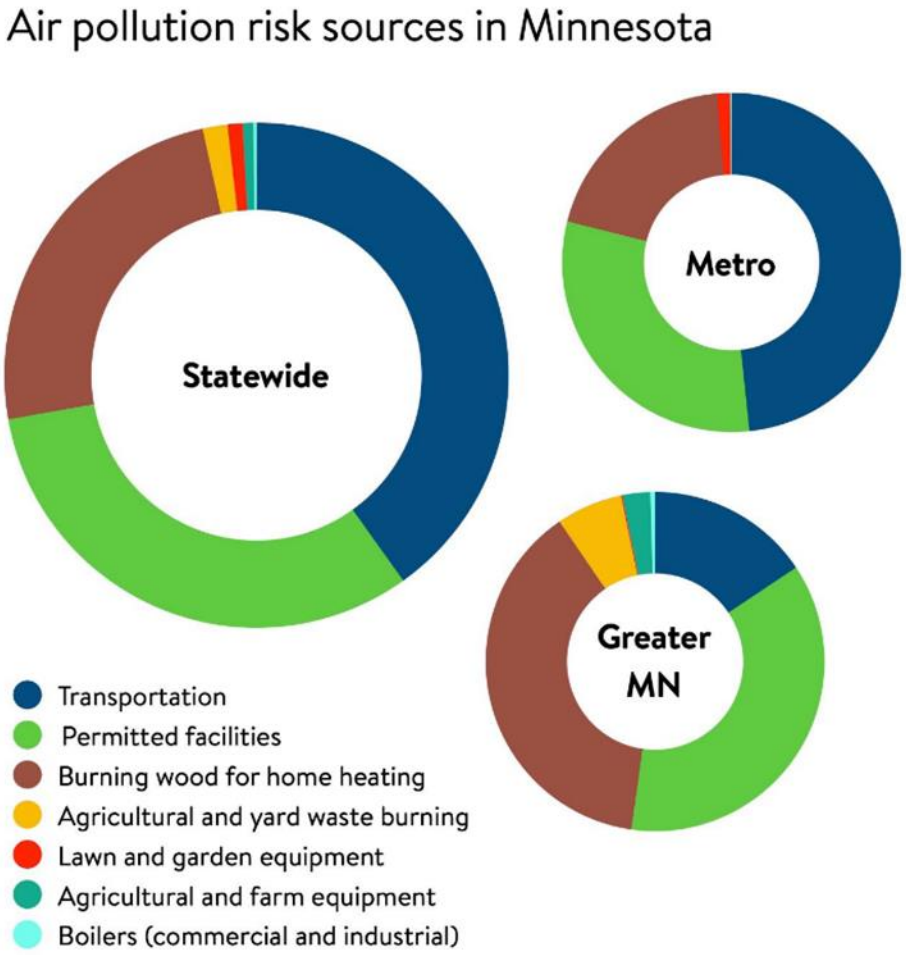
To learn more about air pollution across the state, visit [MPCA's Environmental Justice Map] and check out the Air Pollution Score tab. You can find air pollution scores, pollutants posing the highest potential risk, and types of air pollutant emission sources for any location in Minnesota.

MNRISKS information is reported for census block groups, which are defined and used by the US Census Bureau to count the population. A block group is an area of land where about 600 to 3,000 people live.

Air Pollution Sources

When we compare the sources that contribute to air pollution risk, three sources dominate: transportation (including traffic, planes and airport equipment, railyards and trains, commercial boats and ships, and recreational vehicles and boats), permitted facilities, and burning wood for home heating. These three sources are so dominant that two out of every three Minnesota residents live in an area where these three sources are the top contributors to air pollution risks.

Comparisons of source contributions to air pollution risk statewide, in the Twin Cities metro, and in Greater MN. The sources that contribute the most to air pollution risk are transportation, permitted facilities, and burning wood for home heating. Transportation has a notably outsized contribution in the Twin Cities metro area compared to Greater Minnesota.



Vehicles and technologies

MPCA will offer competitive grant awards to projects that are eligible under the criteria set out in the DERA Program Guide. MPCA will seek eligible projects including, but not limited to: marine engines, locomotives, trailer refrigeration units, terminal tractors, drayage trucks, and off-road engines, and equipment or vehicles used in construction, handling of cargo, agriculture, mining, or energy production.

These eligible projects will be upgraded via 3 main eligible diesel emission reduction solutions: engine replacements (electric/diesel/alt fuel), vehicle replacements (electric/diesel/alt fuel), and idle reduction technologies. Potential additional technologies include: engine upgrades and remanufacture, cleaner fuels and additives, aerodynamic technologies, or clean alternative fuel conversions. On-road idle reduction and other eligible technology may also be made eligible under this funding. All funded replacement vehicles, engines and emission-reducing technologies must be EPA/CARB-verified.

The MPCA anticipates funding approximately 10 – 50 projects. This number is extremely hard to predict with some projects only being a few thousand dollars to others being hundreds of thousands of dollars. Minnesota state statutes requires the use of a competitive Request for Proposal (RFP) process in the award of sub-recipient grants and contracts, so we can only roughly estimate what types of fleets, and types of technologies, and what their emission reductions may be. Thus, we cannot guarantee what fleets/projects will apply and what fleets the MPCA will select. However, we will provide this information once the process is complete and MPCA has selected the fleets per new EPA program guidelines.

One potential change from last year is that within our Phase 3 funding discussions, locomotive idle reduction technologies have been established as a clear-cut best way to reduce NOx effectively. We may have an RFP that focuses specifically on locomotive idle reduction.

Roles and responsibilities

The MPCA will manage DERA funds by using grants awarded through a competitive request for grant applications – open to all private and public entities in Minnesota.

All applications are screened for eligibility by our Contracts unit. A team of three from our Resource Management & Assistance division scores eligible projects based on criteria stated in the RFP. MPCA grant scoring has been strengthening its environmental justice emphasis and criteria along with health impacts. We will have revised criteria in these categories along with our emission reduction cost per ton criteria. While PM2.5 remains the primary pollutant, co-benefits from reducing other criteria pollutants such as NOx and CO2 will also be utilized in scoring.

Participating fleets work with the DERA program manager to sign a grant agreement that outlines tasks and responsibilities for the project, as outlined below in the Timeline and Milestones section. No work can begin until the grant agreement (contract) is fully executed by both parties. The partner fleet is only reimbursed grants funds after grant agreement is signed, the work is complete, and the reimbursement package has been submitted to MPCA.

In addition, Minnesota's Phase 2 plan does allow for aggregated applications. Eligible contractors may apply for funding on behalf of partner fleets/equipment and request up to 10% for administrative costs above the grant amount requested per equipment with a maximum of up to $10,000 per piece of awarded equipment.

Timeline and milestones

Date	Activity
October 2023	FFY 2023 RFP for off-road equipment launched with 90-day application period
January 2024	DERA RFP closed
January 2024	FFY 2023/2024 Semi Annual Report (quarter report)
February 2024	MPCA staff screens and scores grant applications for eligibility

Date	Activity
February 2024	MPCA staff sends fleet information for EPA for review
March-April 2024	MPCA finalizes grant agreements for FFY23 and VW funding. Grant agreements are signed after 60 – 75-day period by the VW Trustee Once all grant agreements are signed and grants are public, MPCA will publish applicable information to the website. Once a project is selected a signed eligibility statement will be submitted to the EPA.
March 2024	All FFY 2021 and FFY 2022 projects completed
April 2024	Attended Associated Contract Loggers and Truckers - informal presentation of DERA program
May 2024	Awarded participants begin working on replacement/repower projects after fully executing grant agreement
May 2024	MPCA manager works with grantees and any contractors to complete projects and stay abreast of any potential delays in work. Grant Manager conducts site visits as needed per MPCA policies.
May 2024-Aug 25	Sub grantees complete projects, submit documentation of destroyed engine/vehicle, invoices, etc. and are reimbursed electronically We require a paid-in-full invoice and photos of the destroyed engines and/or chassis to accompany our disbursement request form.
June 2024	FFY 2024 RFP for idle reduction launched, open application
June 2024-2025	Applications for idle reduction projects screened for eligibility, sent to EPA for review, and grant agreements executed on a first-come, first-served basis
July 2024	FFY 2021 and 2022 final report submitted/grant closed
July 2024	FFY 2023 and 2024 semiannual report
October 2024	FFY 2024 RFP for off-road equipment launched with 90-day application period
December 2024	Presented at MN Aggregate and Ready Mix Conference
January 2025	FFY 2023 and 2024 semiannual report
January 2025	DERA FFY 2024 RFP selection and processing awards
February 2025	Present at Transportation Materials towards Net Zero conference
February 2025	MPCA staff screens and scores grant applications for eligibility
February 2025	MPCA staff sends fleet information for EPA for review
March-April 2025	MPCA finalizes grant agreements for FFY23 and VW funding. Grant agreements are signed after 60 – 75-day period by the VW Trustee Once all grant agreements are signed and grants are public, MPCA will publish applicable information to the website. Once a project is selected a signed eligibility statement will be submitted to the EPA
April 2025	Attend Associated Contract Loggers and Truckers - informal presentation of DERA program
May 2025	MPCA manager works with grantees and any contractors to complete projects and stay abreast of any potential delays in work. Grant Manager conducts site visits as needed per MPCA policies.
May 2025-August 2026	Sub grantees complete projects, submit documentation of destroyed engine/vehicle, invoices, etc. and are reimbursed electronically We require a paid-in-full invoice and photos of the destroyed engines and/or chassis to accompany our disbursement request form.
July 2025	FFY 2023 and 2024 semiannual report

Date	Activity
August 2025	FFY 2023 projects completed
January 2026	FFY 2023 and 2024 semiannual report
July 2026	FFY 2023 and 2024 semiannual report
August 2026	All FFY 2024 projects completed
September 2026	FFY 2023-2024 project period closes
January 2027	Final report and all documentation due to the EPA (120 days after end of project period)

DERA programmatic priorities

Section VII.D of the Program Guide (page 13) states: "The Diesel Emissions Reduction Act (DERA) allows EPA to prioritize certain applicants in the DERA State Grants. The statute enables the program to prioritize projects that maximize public health benefits, are the most cost-effective, that serve areas with the highest population density or that are poor air quality areas (including nonattainment or maintenance areas and areas with toxic air pollutant concerns), that serve areas that receive a disproportionate quantity of air pollution from diesel fleets, and those that use a community-based multistakeholder collaborative process to reduce toxic emissions. The state's workplan should discuss if and how the state will ensure that projects selected for funding support the programmatic priorities listed below."

a) Goods Movement Facilities

    I. MPCA plans to continue promoting projects withing Goods Movement Facilities. In the past RFP, 5 points were awarded for "Service to Goods Movement Facilities". In FFY 2024, 10 points will be awarded.

b) Environmental Justice and Disadvantaged Communities

    I. The MPCA believes that Every Minnesotan — regardless of income, race, ethnicity, color, or national origin — has the right to healthy air, sustainable lands, clean water, and a better climate. Unfortunately, too many people, especially low-income communities, communities of color, and Indigenous people, bear the disproportionate impacts of pollution and climate change. The MPCA focuses on developing strategies to reduce pollution and health disparities in communities most at-risk. Additional information can be found on this website: https://www.pca.state.mn.us/about-mpca/environmental-justice

    II. As stated earlier, projects in these communities will be prioritized throughout the grant process.

        1) Disadvantaged Communities: In reviewing the document titled "2023-2024 Diesel Emissions Reduction Act (DERA) State Grants Priority Area List", it shows that Anoka, Blue Earth, Dakota, Hennepin, Kandiyohi, and Ramsey Counties are marked as Priority Counties for 2019 Air Toxics Screening Assessment.

c) Community Engagement

I. MPCA is aware that Community Engagement is a priority of this DERA program. We are certainly interested in incorporating this element in our program. However, the details have yet to be worked out. If and when the MPCA does include this in the DERA program, this work plan may be amended to include further information.

d) Project Sustainability

I. MPCA is aware that Project Sustainability is a priority of this DERA program. We are certainly interested in incorporating this element in our program. However, the details have yet to be worked out. If and when the MPCA does include this in the DERA program, this work plan may be amended to include further information.

Environmental justice and disadvantaged communities

As stated earlier, the MPCA is committed to making sure that pollution does not have a disproportionate impact on any group of people — the principle of environmental justice. This means that all people — regardless of their race, color, national origin or income — benefit from equal levels of environmental protection and have opportunities to participate in decisions that may affect their environment or health.

More information can be found here: https://www.pca.state.mn.us/about-mpca/environmental-justice. Additional detailed information including mapping: https://experience.arcgis.com/experience/bff19459422443d0816b632be0c25228/page/Page/?views=EJ-areas

Sustainability of the program

MPCA has been successfully coordinating DERA funding in partnership with EPA and Clean Air Minnesota for well over a decade. We will build on this history and continue to strive for even greater heights. Key points of Sustainability include:

- MPCA is a member of EPA's Ozone and PM2.5 Advance group because of Minnesota's extensive nonpoint air pollution efforts, despite being in attainment.
- We expect to continue to use VW Settlement funds for our match over the next several years. With MN eligible for $47 million in VW settlement funds available over 10 years, we anticipate funding and fruitful results. See MPCA's VW Phase 3 Plan (https://www.pca.state.mn.us/air-water-land-climate/using-volkswagen-settlement-for-clean-transportation)
- The MPCA publishes DERA grant projects awards on its Clean Diesel Web pages. MPCA also writes clean diesel grant success stories and posts them on the Web. The MPCA promotes the DERA program through direct email, news releases and in talking points of various presentations by both MPCA management and staff.
- Similar efforts will be done for the numerous other emission reduction programs previously mentioned – that are, or will be, funded by VW settlement funds.
- There is the possibility that much higher profile PR events will be held as COVID requirements continue to loosen. EPA will be kept abreast of these events and asked to participate when feasible.

Reducing health risks from air pollution

The MPCA works to reduce health risks from air pollution through state and federal regulations and through voluntary measures like grants, loans, and technical assistance. In the last few years, the MPCA has:

- Implemented Minnesota's partial ban on trichlorethylene (TCE)
- Continued work with Clean Air Minnesota, a public-private partnership, to reduce VOCs, PM, and NOx emissions by over 600 tons
- Awarded $14 Million in Volkswagen Settlement funds to support transportation electrification and the replacement of high-emitting diesel equipment. These grants reduced emissions by 1,900 tons of NOx, 190 tons of PM2.5, and 37,000 tons of GHGs.
- 29% of funds have been awarded to projects in areas of concern for environmental justice
- Coordinated with tribal nations to swap wood stoves for newer, less-polluting models and store wood to ensure it is clean and dry for burning.
- Supported electric vehicle adoption through EV charging grants, education and Clean Cars MN.
- Prioritized expired permit review and reissuance in areas of concern for environmental justice.
- Prioritized inspections using environmental justice and air pollution risk scores.

The MPCA will continue to work with permitted facilities, other sources of air pollution, and Minnesota communities to ensure all Minnesotans breathe healthy air. The funding from this DERA program is a key piece of Minnesota's actions to improve air quality.

Project resilience to climate impacts

Section VIII.D.4 states "Priority may be given to projects which demonstrate the ability to protect grant funded investments from severe weather events. EPA will evaluate projects based on the quality and extent to which the project assesses and implements adaptation considerations described below to help ensure that the project achieves its expected outcomes even as the climate changes."

Minnesota's climate already is changing rapidly and will continue to do so for the foreseeable future. Temperatures are increasing — especially in winter — and larger, more frequent extreme precipitation events are occurring.

Substantial warming during winter and at night, increased precipitation, and heavier downpours already have damaged buildings and infrastructure, limited recreational opportunities, altered our growing seasons, impacted natural resources, and affected the conditions of lakes, rivers, wetlands, and our groundwater aquifers that provide water for drinking and irrigation.

The years ahead will bring even warmer winters and nights, and even larger rainfalls, along with increased summer heat and longer dry spells. Even if we drastically reduced or halted greenhouse gas emissions immediately, the climate has already changed and will continue to change.

Climate adaptation identifies strategies and actions that help human and natural systems cope with and become more resilient to these impacts of climate change. The MPCA is taking action to identify climate change risks and to help Minnesota communities adapt to climate change.

More information can be seen here: https://www.pca.state.mn.us/air-water-land-climate/climate-change-adaptation

MPCA may incorporate Climate Resiliency into future DERA grant priorities, but the details have yet to be worked out. If and when the MPCA does include this in the DERA program, this work plan may be amended to include further information.

Workforce development

Section VIII.D.5 states "Priority may be given to projects which demonstrate a plan to prepare the workforce for the project, such as conducting robust workforce planning to ensure current drivers, mechanics, electricians, and other essential personnel receive training to safely operate and maintain the new buses and infrastructure, as well as clarifying protections to ensure existing workers are not replaced or displaced because of new technologies"

MPCA may incorporate Workforce Development into future DERA grant priorities, but the details have yet to be worked out. If and when the MPCA does include this in the DERA program, this work plan may be amended to include further information.

EPA'S strategic plan linkage and anticipated outcomes/outputs

1. Linkage to EPA Strategic Plan

This DERA program has direct correlation with EPA's new FY 2022-2026 EPA Strategic Plan. This Strategic Plan also syncs up extremely well with the MPCA's Strategic Plan. At a minimum, this program will impact the following EPA Goals

- Goal 1: Tackle the Climate Crisis
    - Obj 1.1: Reduce Emissions that Cause Climate Change
        - The MPCA administers this grant program that will directly fund projects that substantially reduce emissions of Particulate Matter, Nitrous Oxides, Greenhouse Gases, and others.
    - Obj 1.2: Accelerate Resilience and Adaptation to Climate Change Impacts
        - Projects under this grant are required to replace their old equipment when funding new equipment. Thus, the new or improved engines will be running cleaner into the future and preventing future pollution. By bending the curve with these emissions, it enables more resiliency and adaptation.
    - Obj 1.3: Advance International and Subnational Climate Efforts
- Goal 2: Take Decisive Action to Advance Environmental Justice and Civil Rights
    - Obj 2.1: Promote Environmental Justice and Civil Rights at the Federal, Tribal, State, and Local Levels
        - This grant program hits all of these levels. The state of Minnesota is partnering with the federal EPA here, and the MPCA works with tribal and local partners. Environmental Justice is always a piece of MPCA's DERA program.
    - Obj 2.2: Embed Environmental Justice and Civil Rights into EPA's Programs, Policies, and activities

        - As outlined in this workplan and on our website, the MPCA has robust Environmental Justice goals and this concept is fully integrated into our program.
    - Obj 2.3: Strengthen Civil Rights Enforcement in Communities with Environmental Justice Concerns
- Goal 4: Ensure Clean and Healthy Air for All Communities
    - Obj 4.1: Improve Air Quality and Reduce Localized Pollution and Health Impacts
        - The grants given out under this DERA program directly reduce emissions from diesel equipment, thus improving air quality. The communities that this equipment operates will benefit from the reduced localized pollution they would normally experience with this equipment now operating much cleaner. With reduced emissions comes improved health.
    - Obj 4.2: Reduce Exposure to Radiation and Improve Indoor Air
        - he diesel equipment that these fleets operate spend a lot of time in a shop doing maintenance. The older equipment pollutes far more than the new cleaner equipment, thus the people that work in these buildings experience reduced exposure with the new equipment.

Outputs

It is difficult to estimate the number of projects and emissions reductions that will take place through this funding. In 2023, the MPCA awarded vehicle replacement grants for the following diesel equipment: one off-highway truck, four rubber tire loaders, one skid steer loader, one other material handling equipment, and one excavator (Table 3). These will be replaced with vehicles that have certified EPA diesel engines. Seven pieces of diesel airport support equipment will be replaced with new, all-electric airport support equipment.

In FFY24 it is projected that 2 loaders and 6 excavator vehicles will be replaced with certified EPA diesel vehicles and 10 locomotive idle reduction technologies that are EPA SmartWay verified technologies projects (Table 5Table 4). This number is extremely hard to predict with some projects only costing a few thousand dollars to others being hundreds of thousands of dollars. Minnesota state statutes requires the use of a competitive Request for Proposal (RFP) process in the award of sub-recipient grants and contracts, so we can only roughly estimate what types of fleets, and what types of technologies may apply, and what their emission reductions may be. However, we will provide this information once the process is complete and MPCA has selected the fleets per new EPA program guidelines.

Outcomes

Emissions reductions are very difficult to forecast because we do not know what projects will apply or be awarded grant funding. And it is especially difficult to estimate over 2 years' funding, and without knowing the exact amount of VW Phase 3 funding we will be using. However, based upon funding 5 loaders, 6 excavators, and 10 locomotive idle reduction projects we were able to estimate emissions reductions. U.S. EPA's Diesel Emission Quantifier was used to estimate the emission reductions from this project as shown in the table below:

Table 6. Estimated emission reductions for FFY 2023 (actual) and FFY 2024 grants (actual)

Federal fiscal year	NO_x	PM	HC	CO	CO_2
FFY 2023	92.653	8.205	.568	2.248	5979.3
FFY 2024	185.097	14.631	12.766	95.366	13381.700

The reductions will be finalized after projects are selected and finalized in the Final Report.

Additional outcomes

- Increased community health and participation in MPCA's Environmental Justice objectives.
- The MPCA Clean Diesel-focused email subscriber list has grown from 65 interested parties seven years ago to around 2,300 today. The VW list is over 2,200.
- MPCA clean diesel grants, loans, and some state funding gained for school buses that leveraged these grants has reduced PM2.5 by the equivalent of taking over a million cars off the road.
- We have continued to expand our off-road grant project categories including marine projects and scrapyard/recycling equipment such as forklifts and material handlers. Locomotive idle reduction may be next.
- It is important to remember that Minnesota is in attainment and therefore all actions are voluntary. Still, the CAM-MPCA message is clear that our state is close to exceeding Federal air standards for both fine particles and ozone. This message is resonating with metro municipalities and counties and gaining traction with metro businesses as well. We hope to continue to build support via CAM stakeholders for emission reduction efforts beyond federal and VW grant-financed projects.

The MPCA will be in close interaction with all fleet partners and contractors during the projects. We operate with the adage that it is better to keep the lines of communication open and work with our partners to get the job done- we are all on the same team here.

The MPCA is committed, at a minimum, to fill out the EPA Semiannual Report as required by the program. This is a key document that details not only project status but also staff costs.

U.S. ENVIRONMENTAL PROTECTION AGENCY

Assistance Amendment

GRANT NUMBER (FAIN): 00E65307 **MODIFICATION NUMBER:** 1 **PROGRAM CODE:** DS	**DATE OF AWARD** 12/20/2024
TYPE OF ACTION Augmentation: Increase	**MAILING DATE** 12/26/2024
PAYMENT METHOD: ASAP	**ACH#** 50248

RECIPIENT TYPE:
State

Send Payment Request to:
Contact EPA RTPFC at: rtpfc-grants@epa.gov

RECIPIENT:
MINNESOTA POLLUTION CONTROL AGENCY
520 Lafayette Road North
St. Paul, MN 55155
EIN: 41-6007162

PAYEE:
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

PROJECT MANAGER	EPA PROJECT OFFICER	EPA GRANT SPECIALIST
Cindy Osborn 520 Lafayette Road North St. Paul, MN 55155-4194 **Email:** cynthia.osborn@state.mn.us **Phone:** 651-757-2099	Alexis Hosna 77 W. Jackson Ave, A-18J Chicago, IL 60604 **Email:** Hosna.Alexis@epa.gov **Phone:** 312-353-3209	Latasha Kyles Assistance Section, MA-10J 77 W. Jackson Blvd. Jackson, IL 60604 **Email:** Kyles.Latasha@epa.gov **Phone:** 312-353-2004

PROJECT TITLE AND EXPLANATION OF CHANGES

FY23 Minnesota's Clean Diesel Program

See Attachment 1 for project description.

BUDGET PERIOD	PROJECT PERIOD	TOTAL BUDGET PERIOD COST	TOTAL PROJECT PERIOD COST
10/01/2023 - 09/30/2026	10/01/2023 - 09/30/2026	$ 9,909,665.00	$ 9,909,665.00

NOTICE OF AWARD

Based on your Application dated 08/30/2023 including all modifications and amendments, the United States acting by and through the US Environmental Protection Agency (EPA) hereby awards $ 618,816.00. EPA agrees to cost-share 13.24% of all approved budget period costs incurred, up to and not exceeding total federal funding of $ 1,274,792.00. Recipient's signature is not required on this agreement. The recipient demonstrates its commitment to carry out this award by either: 1) drawing down funds within 21 days after the EPA award or amendment mailing date; or 2) not filing a notice of disagreement with the award terms and conditions within 21 days after the EPA award or amendment mailing date. If the recipient disagrees with the terms and conditions specified in this award, the authorized representative of the recipient must furnish a notice of disagreement to the EPA Award Official within 21 days after the EPA award or amendment mailing date. In case of disagreement, and until the disagreement is resolved, the recipient should not draw down on the funds provided by this award/amendment, and any costs incurred by the recipient are at its own risk. This agreement is subject to applicable EPA regulatory and statutory provisions, all terms and conditions of this agreement and any attachments.

ISSUING OFFICE (GRANTS MANAGEMENT OFFICE)	AWARD APPROVAL OFFICE
ORGANIZATION / ADDRESS	**ORGANIZATION / ADDRESS**
U.S. EPA, Region 5, U.S. EPA Region 5 Mail Code MCG10J 77 West Jackson Blvd. Chicago, IL 60604-3507	U.S. EPA, Region 5, Air and Radiation Division R5 - Region 5 77 W. Jackson Blvd., A-18J Chicago, IL 60604

THE UNITED STATES OF AMERICA BY THE U.S. ENVIRONMENTAL PROTECTION AGENCY

Digital signature applied by EPA Award Official for Sheila Dolan - Manager, Acquisition & Assistance Branch **by** Robert Fields - Award Official Delegate	**DATE** 12/20/2024

EPA Funding Information

FUNDS	FORMER AWARD	THIS ACTION	AMENDED TOTAL
EPA Amount This Action	$ 655,976	$ 618,816	$ 1,274,792
EPA In-Kind Amount	$ 0	$ 0	$ 0
Unexpended Prior Year Balance	$ 0	$ 0	$ 0
Other Federal Funds	$ 0	$ 0	$ 0
Recipient Contribution	$ 1,276,550	$ 0	$ 1,276,550
State Contribution	$ 0	$ 0	$ 0
Local Contribution	$ 0	$ 0	$ 0
Other Contribution	$ 4,500,000	$ 0	$ 4,500,000
Allowable Project Cost	$ 6,432,526	$ 618,816	$ 7,051,342

Assistance Program (CFDA)	Statutory Authority	Regulatory Authority
66.040 - Diesel Emissions Reduction Act (DERA) State Grants	Diesel Emission Reduction Act of 2010, codified at 42 U.S.C. 16133	2 CFR 200, 2 CFR 1500 and 40 CFR 33

Fiscal									
Site Name	Req No	FY	Approp. Code	Budget Organization	PRC	Object Class	Site/Project	Cost Organization	Obligation / Deobligation
-	2505LVX003	24	E4	05L4	000AH4	4123	-	-	$ 618,816
									$ 618,816

Budget Summary Page

Table A - Object Class Category (Non-Construction)	Total Approved Allowable Budget Period Cost
1. Personnel	$ 178,864
2. Fringe Benefits	$ 60,814
3. Travel	$ 0
4. Equipment	$ 0
5. Supplies	$ 0
6. Contractual	$ 0
7. Construction	$ 0
8. Other	$ 9,596,885
9. Total Direct Charges	$ 9,836,563
10. Indirect Costs: 0.00 % Base See Table B	$ 73,102
11. Total (Share: Recipient 86.76 % Federal 13.24 %)	$ 9,909,665
12. Total Approved Assistance Amount	$ 1,311,952
13. Program Income	$ 0
14. Total EPA Amount Awarded This Action	$ 618,816
15. Total EPA Amount Awarded To Date	$ 1,274,792

Table B Budget Worksheet #1

Table B - Program Element Classification (Non-construction)	Total Approved Allowable Budget Period Cost
1. Salary and Fringe 30.5% - 7/1/2023 - 6/30/2024	$ 0
2.	$ 0
3.	$ 0
4.	$ 0
5.	$ 0
6.	$ 0
7.	$ 0
8.	$ 0
9.	$ 0
10.	$ 0
11. Total (Share: Recip % Fed %)	$ 0
12. Total Approved Assistance Amount	$ 0

Attachment 1 - Project Description

The agreement provides funding to the Minnesota Pollution Control Agency (MPCA) under the Diesel Emission Reduction Act to reduce emissions of diesel

particulate matter, NOx and exposure to diesel air toxics in Minnesota.The activities include vehicle replacements for 5 loaders, 1 dozer and 6 excavators with

EPA certified clean diesel engines and 10 locomotive idle reduction projects using EPA SmartWay technologies. The expected outcomes of these projects will reduce emissions of diesel particulate matter and other pollutants such as nitrogen oxides, carbon monoxide, and hydrocarbons. Direct beneficiaries of this project include the residents of Minnesota and in particular, those who live, work or play near where the affected fleet operates. This assistance agreement would benefit the public with cleaner air and lower toxic emissions of diesel exhaust. MPCA intends to issue subaward agreements to its partners in compliance with Appendix A of EPA’s Subaward Policy. These activities include vehicle replacements for 5 loaders and a dozer with EPA certified clean diesel engines for FFY 2023, and additional vehicle replacements for 6 excavators with EPA certified clean diesel vehicles and 10 locomotive idle reduction projects using EPA SmartWay technologies for FFY 2024

This incremental amendment obligates federal funding in the amount of $618,816. These funds will support the continuance of the Minnesota Pollution Control Agency's aforementioned workplan activities. The remaining funding is contingent upon availability of funds.

Administrative Conditions

The Following Administrative Term and Condition Has Been Updated

General Terms and Conditions

The recipient agrees to comply with the current Environmental Protection Agency (EPA) general terms and conditions available at: https://www.epa.gov/system/files/documents/2024-10/fy_2025_epa_general_terms_and_conditions_effective_october_1_2024_or_later.pdf

These terms and conditions are in addition to the assurances and certifications made as a part of the award and the terms, conditions, or restrictions cited throughout the award.

The EPA repository for the general terms and conditions by year can be found at: https://www.epa.gov/grants/grant-terms-and-conditions#general.

All Other Administrative Conditions Remain the Same

Programmatic Conditions

All Programmatic Conditions Remain the Same

Appendix D-4– Supplemental Information
Beneficiary Eligible Mitigation Action Certification

Beneficiary: Minnesota
Lead Agency: Minnesota Pollution Control Agency

In support of funding request no. 31
MN Phase 3 DERA 7

Appendix D4 - Summary

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

A detailed description of this project is described on pages 10-17 of Minnesota's Beneficiary Mitigation Plan (see attached excerpt). This funding request will support the 2023 DERA program.

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

This DERA 7 Off-Road replacement program will use VW and DERA funds to award grants to replace 17 old diesel pieces of equipment. All of these new pieces of equipment will be operated in Minnesota. New equipment includes 9 dozer/loaders, two excavators, two materiel handlers and two pieces of mining equipment. This grant round also includes one off highway truck for mining, and one electric terminal tractor. All new pieces of equipment will replace old diesel equipment, resulting in substantial environmental improvement.

We anticipate more than 40% of all MN VW projects will be located in areas disproportionately impacted by air pollution. All projects are selected using Minnesota's environmental justice mapping tools as part of our selection criteria.

The Minnesota Pollution Control Agency anticipates the following emissions reductions as a result of DERA 7 Off-Road project:

Pollutant	NOx	PM 2.5	GHG
Lifetime Tons of Pollution Reduced	185.1	12.8	13,381.7

Estimate of Anticipated NOx Reductions (5.2.3):

Lifetime NOx reductions will be 185.1 Tons

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):

The Minnesota Pollution Control Agency (MPCA) is responsible for all Volkswagen projects in MN.

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

- All non-private documents will be publicly available through Minnesota's public facing website: www.pca.state.mn.us/vw.

  The Minnesota Government Data Practices Act (MGDPA), found in Chapter 13 of Minnesota statutes, is a Minnesota state law that regulates the handling of all governmental data that are collected, created, disseminated, maintained, received and stored by a political subdivision, state agency or statewide system regardless of their physical form, how they are stored or how they are used. The Minnesota Pollution Control Agency (MPCA) is a state agency and, therefore, subject to the requirements of the MGDPA.

  There is a general presumption in the MGDPA that all governmental data are public unless there is a federal law, state statute or temporary classification that allows the data to be classified as not public. Some of the not public data types that may be included within the MPCA's grant application and award documentation include, but are not limited to, business data, personal information, security information, social security numbers, trade secret information etc.

  The MPCA is statutorily obligated to maintain such data types as not public and, therefore, will not provide them when requested or present them on our public facing website. The MPCA will provide requesters with notification that the not public data are not being provided and will cite the federal law, state statute or temporary classification that allows for this not public classification.

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

There is a maximum grant percentage for each eligible piece of off-road equipment being replaced. The grant amount is 25% for total replacement of equipment, or 40% for either engine replacement or adding idle reduction technology. All electric replacement pieces of equipment may be reimbursed up to 45% of the cost of the equipment. Each off-road equipment owner is responsible for funding the remainder of the replacement for their projects.

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

The Minnesota Pollution Control Agency contacted all necessary US Government agencies on Monday, Feb 12, 2018 as described in 4.2.8 of VW Consent Decree. The MPCA received replies from National Park Service and US Forest Service on Wed, Feb 14, 2018 acknowledging receipt of all necessary documents.

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):

The MPCA is using our Environmental Justice and Department of Health mapping tools to help choose projects in areas that have historically borne a disproportionate share of the adverse impacts of NOx emissions.

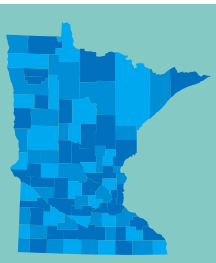
P3 Excerpt for Funding Requests

MN Volkswagen settlement

Minnesota's Volkswagen Settlement Beneficiary Mitigation Plan
Phase 3 (2024 - 2027)

Minnesota's plan for using funds from the national Volkswagen settlement.

MINNESOTA POLLUTION CONTROL AGENCY



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Executive summary

The settlement

In 2016, Volkswagen Corporation (VW) was caught violating air pollution standards for nitrogen oxides in its diesel cars and SUVs. Their vehicles were producing 30-40 times more pollution than allowed by law. The federal government took VW to court and in October 2017, the Department of Justice and VW signed a $15 billion settlement. A portion of the settlement – $2.9 billion – is shared among the U.S. states and tribes, based on the number of violating vehicles registered in each jurisdiction. Minnesota's share is $47 million. Governor Dayton designated the Minnesota Pollution Control Agency (MPCA) to manage the settlement funds, which will be spent over 10 years on projects to offset the excess pollution from the violating vehicles, clean up our air, and invest in a cleaner transportation future.

Minnesota's plan

Three phases

Minnesota's plan is structured in three phases, so the MPCA can seek additional input, incorporate lessons learned, consider new technologies, and make changes as needed along the way.

The three phases are:

- Phase 1: $11.75 million (25% of initial funds) – 2018-2019
- Phase 2: $23.5 million (50%) – 2020-2023
- Phase 3: $14 million (remainder of all funds) – 2024-2027

This document covers Phase 3 of the plan, from 2024 through 2027. States are required to develop plans for using their settlement funds and submit them for approval to the Trustee managing the funds nationally.

Phase 1 and Phase 2 summary

Minnesota completed its second phase of the VW plan in late 2023. In Phase 2, we invested $24 million to reduce air pollution in Minnesota through grant programs across five categories: school buses, transit buses and trucks (heavy-duty on-road vehicles), off-road equipment, heavy-duty electric vehicles, and electric vehicle (EV) infrastructure. We saw strong interest and received applications that exceeded grant amounts in all grant programs during Phase 2. To date, we funded the replacement of 475 older diesel vehicles and equipment with new versions that run on a variety of fuel types, including new diesels that meet stricter emission standards, propane, and electric alternatives. The MPCA also funded 103 new EV charging stations (206 charging plugs) throughout Minnesota.

The first two phases put us well on our way to achieving nearly all the 10-year goals outlined in the original plan. Specifically, we are on track to exceed most of our emissions reductions goals while making strides in maximizing health benefits, reducing exposure to air pollution, and ensuring Minnesotans across the state benefit from these investments. These results, along with public input, have informed our Phase 3 draft plan. For detailed Phase 1 and Phase 2 results, see Appendix 1.

10-year goals

The input MPCA received during the development of this Phase 3 plan confirmed that we should continue to strive for the 10-year goals we set in our original plan. The MPCA will continue to use the state's settlement funds

to support a healthy environment for all Minnesotans and achieve significant emissions reductions across the state, especially in communities most vulnerable to the effects of vehicle pollution. Because 60% of the violating vehicles were registered in the Twin Cities metropolitan area and 40% were registered in Greater Minnesota, the funds will again be targeted using the same 60:40 ratio in Phase 3. We will continue to invest in communities disproportionately impacted by air pollution, both in the Twin Cities area and in Greater Minnesota. In developing the grant programs and selecting projects for funding, we will balance project costs with emissions reductions and other benefits.

Six grant programs in Phase 3 (2024-2027)

In Phase 3, MPCA will invest VW settlement funds through six grant program areas that will allow different vehicle and equipment types to be compared with each other through a competitive grant process. With these investments in 2024 through 2027, MPCA expects to reduce between 2,722 to 3,365 tons of nitrogen oxides (NO_x), 153 to 297 tons of fine particles ($PM_{2.5}$), and 32,264 to 63,338 tons of greenhouse gases (GHG).

Table 1: Summary of Phase 3 grant programs

Grant programs (2024-2027)	**Settlement category**	**Eligible fuels (for new vehicle or equipment)**	**2024-2027 grants (Phase 3)**	
			Targeted percent*	**Targeted dollar amount**
Clean heavy-duty on-road vehicles program	Transit buses, class 4-8 trucks	Diesel, propane, natural gas	15%	$2,100,000
Clean heavy-duty off-road equipment program	Switcher locomotives, ferries, tugs, port cargo handling equipment, ocean-going vessel shore power, Diesel Emission Reduction Act (DERA)	Diesel, propane, natural gas, electric	30%	$4,200,000
School bus replacement program	School buses	Diesel, propane, natural gas	5%	$700,000
Electric school bus replacement program	Electric school buses	Electric	15%	$2,100,000
Heavy-duty electric vehicle program	Transit buses, class 4-8 trucks, airport ground support equipment, forklifts	Electric	20%	$2,800,000
Electric vehicle charging stations	Zero-emission vehicle infrastructure	Not applicable	15%	$2,100,000
Total: $14,000,000				

*Percentage of available Phase 3 settlement funds targeted at these activities for 2024-2027

The MPCA reserves the right to allocate funds as necessary to ensure all VW funds are invested prior to program expiration.

Outreach and input

The MPCA is committed to delivering a pollution reduction program that benefits all Minnesotans. To develop this Phase 3 plan, the agency sought input statewide throughout the summer of 2023 and into 2024. We shared results from our first six years of grant programs and posted information and data on our VW webpages. We held one stakeholder meeting, shared informational email bulletins, had an open survey hosted on Smart Comment, and sought input from the MPCA's Environmental Justice Advisory Group and Environmental Justice Advocates.

Public comments indicate that the efforts we began in Phase 1 and Phase 2 should continue:

- Reducing diesel emissions throughout the state, across a variety of vehicle types
- Investing in projects to reduce emissions in disproportionately impacted communities
- Funding EV charging stations and electric replacements for diesel vehicles and equipment
- Continuing to fund electric vehicles, when available
- Continuing to fund cleaner fuel alternatives to old, high emitting diesel vehicles
- Recognizing projects that are cost effective, where appropriate

Once the draft Phase 3 plan was released to the public in late 2023, the MPCA solicited input from the public and key stakeholders from across the state to ensure that the plan best reflected the comments and priorities we heard during this process. We held public meetings and accepted written comments until January 15, 2024. Details of this outreach effort can be found in Appendix 4.

Information gathered during the entire Plan development process is available at www.pca.state.mn.us/vw. We also encourage anyone interested in applying for grant funds to go to our website and sign up to receive email updates.

Minnesota's Plan

Minnesota's Beneficiary Mitigation Plan for submission to the Wilmington Trust of Wilmington, Delaware as required by the Environmental Mitigation Trust Agreement for State Beneficiaries as part of the Volkswagen Environmental Settlement.

Introduction

VWs tampered diesel vehicles have emitted an estimated 600 tons of excess air pollution in Minnesota. The MPCA is committed to ensuring that Minnesota's funding from the Volkswagen settlement – $47 million over 10 years – is used to improve air quality in our state, especially for those most vulnerable to air pollution. Our goals are to mitigate the pollution from VW vehicles and reduce air pollution while moving Minnesota towards a cleaner transportation future.

Purpose

This document outlines Phase 3 of Minnesota's Beneficiary Mitigation Plan, a required step in the federal court settlement. To use settlement funds, states must specify how they propose to spend them in a plan submitted to the Trustee managing the funds for states. The federal settlement specifies the project types on which states can spend funds. However, within that structure, we can prioritize projects and initiatives that make the most sense for Minnesotans and reflect our state's priorities and goals. The plan must include:

- Minnesota's goals for the funds
- The types of vehicles and equipment Minnesota plans to replace with the funds
- How Minnesota will use the funds to benefit communities disproportionately impacted by air pollution
- Estimates of the emissions reductions that Minnesota expects to achieve with these funds

This plan for Phase 3 describes our continued focus on the 10-year goals for the program and our projected investments for the next four years (2024-2027).

Goals

Prior to Phase 1, MPCA solicited input from Minnesotans across the state to develop the long-term goals that would guide us over the 10 years of the program, and to inform our plan for spending the VW settlement funds. In 2019 and 2023, MPCA again solicited input from Minnesotans on how the VW settlement funds should be spent and whether our goals for the VW settlement program should change.

Based on this public feedback as well as program experience, MPCA will continue to use VW settlement funds to achieve significant emissions reductions across the state, especially in areas that have been most impacted by vehicle pollution. Looking at the number of violating VW vehicles registered in different parts of the state, we will continue to target 60% of the settlement funds in the Twin Cities metropolitan area and 40% in Greater Minnesota. We will continue to maximize emissions reductions in areas disproportionately impacted by air pollution across the state. We will continue to prioritize bringing health benefits to Minnesotans by reducing their exposures to vehicle-related air pollution and to balance these priorities with cost-effective management of the funds.

Grant program plan

The federal settlement outlines 10 specific activities on which states can use settlement funds. Most of the allowable projects involve replacing older heavy-duty diesel vehicles or equipment with new, cleaner vehicles or equipment. The new vehicles can use diesel or alternative fuels such as propane, compressed natural gas, electricity, or hydrogen fuel cells. To ensure effective replacement, the old engine, and in most cases the entire vehicle, must be destroyed. States can also spend up to 15% of their settlement funds on EV charging stations. See Appendix 2 for a summary of the Volkswagen settlement, and Appendix 8 for the precise descriptions of the types of vehicles and equipment replacements that can be funded under the terms of the settlement.

Using the input of Minnesotans, analysis of Phase 1 and Phase 2 project benefits, and staff expertise, MPCA developed this plan for the third phase of funding (2024-2027) from Minnesota's $47 million allocation from the VW settlement. All funds for the entire settlement must be spent or committed to projects by October 2, 2027. See Appendix 1 for detailed results from Phase 1 and Phase 2, and Appendix 4 for input received during our public engagement.

Phased funding

Minnesota's $47 million allocation will be invested over three phases. This phased approach allows the agency to:

- Build in transparency and involve the public in reviewing and revising the plan between phases
- Learn which projects work best in Minnesota, and modify our requests for proposals in subsequent phases to focus the most effective projects
- Identify areas in need of additional assistance as we seek out proposals
- Track constantly changing vehicle technology and invest in the most effective technology available

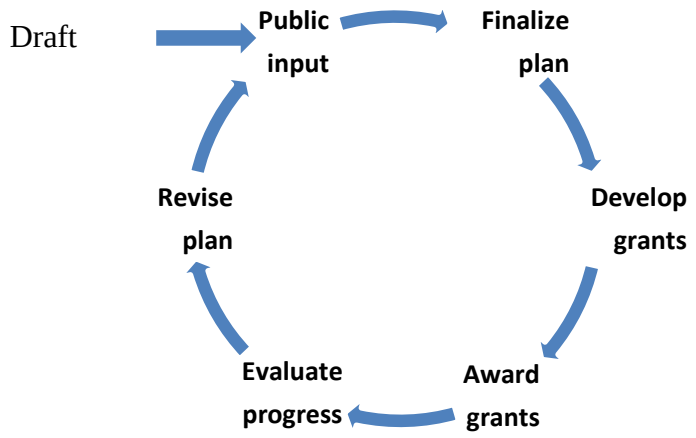
The three phases of funding are:

Phase 1: $11.75 million (25% of overall funds) – 2018-2019: Smaller amount of money to learn and ramp up. We solicited input and reviewed program results after Phase 1.

Phase 2: $23.5 million (50%) – 2020-2023: Most of the funds were spent during this phase, covered in this plan document. We developed the plan for Phase 2 after Phase 1 program review and public engagement. We repeated this public input and plan revision process in 2023, as we conclude Phase 2.

Phase 3: $14 million (25+%) – 2024-2027: Remaining funds, including additional interest earned over the course of the program, will be allocated.

Figure 1: Plan revision process



Phase 3 grants overview

In Phase 3 (2024-2027), MPCA will invest the remainder of Minnesota's funding, or $14 million through six grant program areas. If additional funds from interest earned over the course of the program become available, they may be added to this total. Table 2 reflects our preferred investment scenario. Our ability to fund projects in each

category at the target levels will depend on the applications received and interest by vehicle and equipment owners. If we do not receive sufficient applications in a given category, we may shift funds between grant programs. We may also release additional request for proposals where necessary.

Figure 2: Phase 3 grant program funding allocations

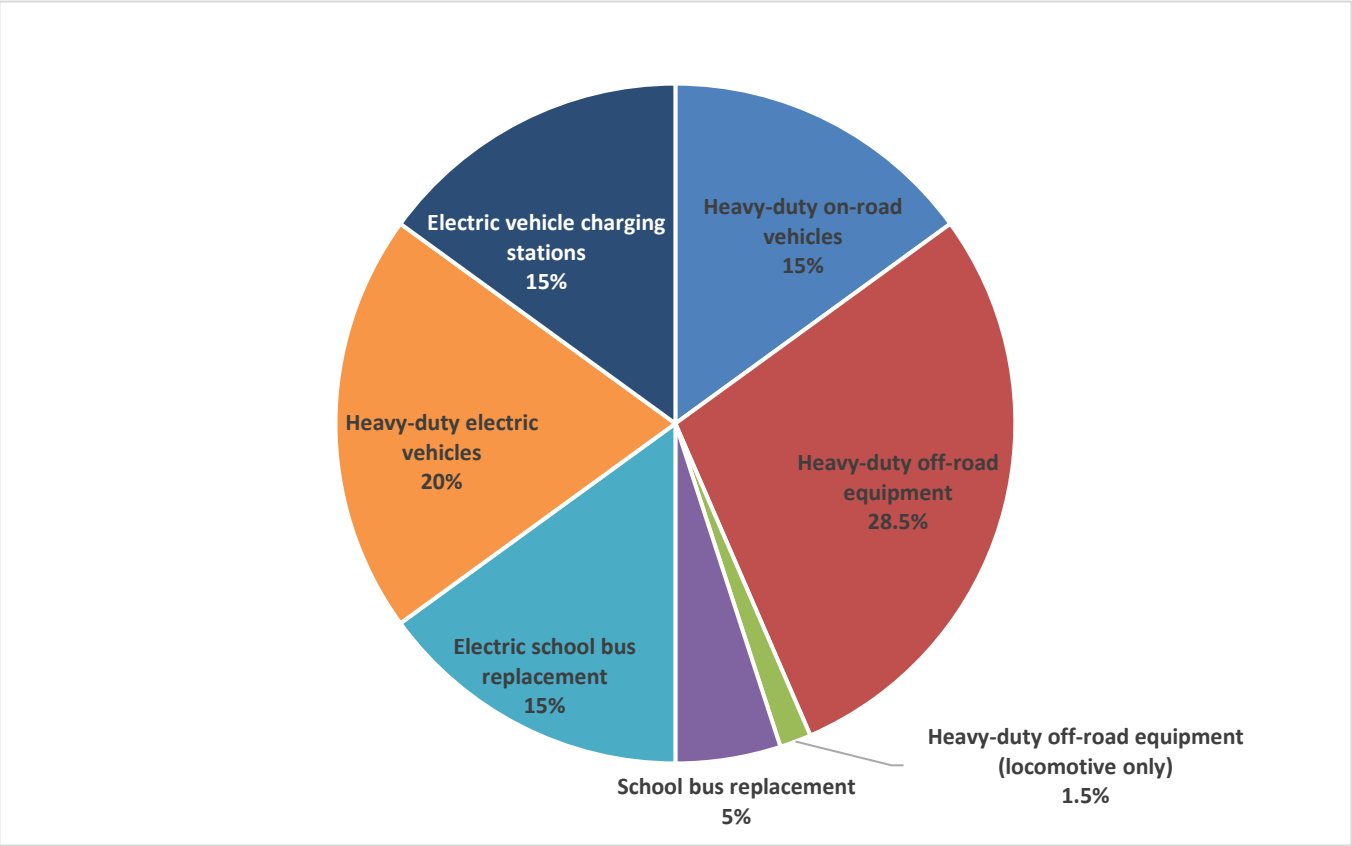


Table 2: Phase 3 grant programs and estimated emissions reductions

Grant programs (2024-2027)	Settlement category	Eligible fuels	2024-2027 grants (Phase 3)			
			Targeted percent*	Targeted dollar amount	Estimated number of projects**	Estimated emissions reductions (tons)***
Clean heavy-duty on-road vehicles program	Transit buses, class 4-8 trucks	Diesel, propane, natural gas	15%	$2,100,000	42	NO_X: 150-204 $PM_{2.5}$: 7-11 GHGs: 2,217-15,431
Clean heavy-duty off-road equipment program	Switcher locomotives, ferries, tugs, port cargo handling equipment, ocean-going vessel shore power, DERA	Diesel, propane, natural gas, electric	28.5%	$3,990,000	47	NO_X: 310-561 $PM_{2.5}$: 64-191 GHGs: 9,253-21,097
	Locomotive idle reduction technology		1.5%	$210,000	12	NO_X: 2,193-2,484 $PM_{2.5}$: 79-90 GHGs: 10,889-12,336
School bus replacement program	School buses	Diesel, propane, natural gas	5%	$700,000	34	NO_X: 13-15 $PM_{2.5}$: 0.65-0.84 GHGs: 929-1,207
Electric school bus replacement program	School buses	Electric	15%	$2,100,000	7	NO_X: 3-6 $PM_{2.5}$: 0.07-0.44 GHGs: 740-1,230
Heavy-duty electric vehicle program	Transit buses, trucks, airport ground support equipment, forklifts	Electric	20%	$2,800,000	11	NO_X: 52-93 $PM_{2.5}$: 2-5 GHGs: 3,511-7,314
Electric vehicle charging station program	Zero-emission vehicle infrastructure	Not applicable	15%	$2,100,000	Fast chargers: 13	NO_X: 0.96 $PM_{2.5}$: 0.07 GHGs: 4,724
Total: $14,000,000						NO_X: 2,722-3,365 $PM_{2.5}$: 153-297 GHGs: 32,264-63,338

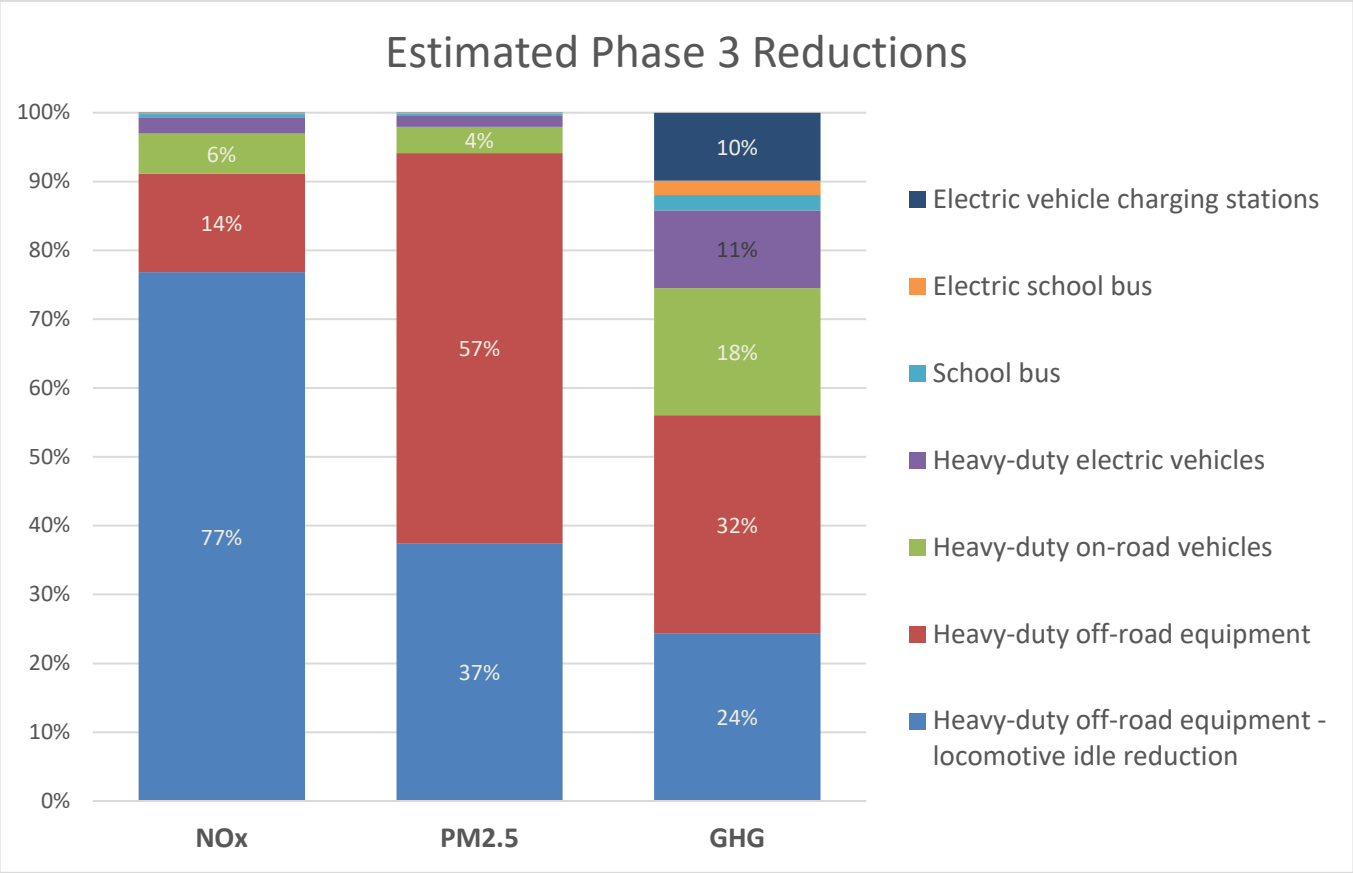
*Percentage of available settlement funds targeted at these activities for 2024-2027.

**Each category includes an estimated mix of eligible vehicles and equipment types. These estimates provide an idea of how many vehicles of each type could be funded in Phase 3 in order to make emissions calculations, but do not reflect a preference for any vehicle or fuel type or funding targets or allocations within each grant program. See Appendix 6 for

calculation methods.

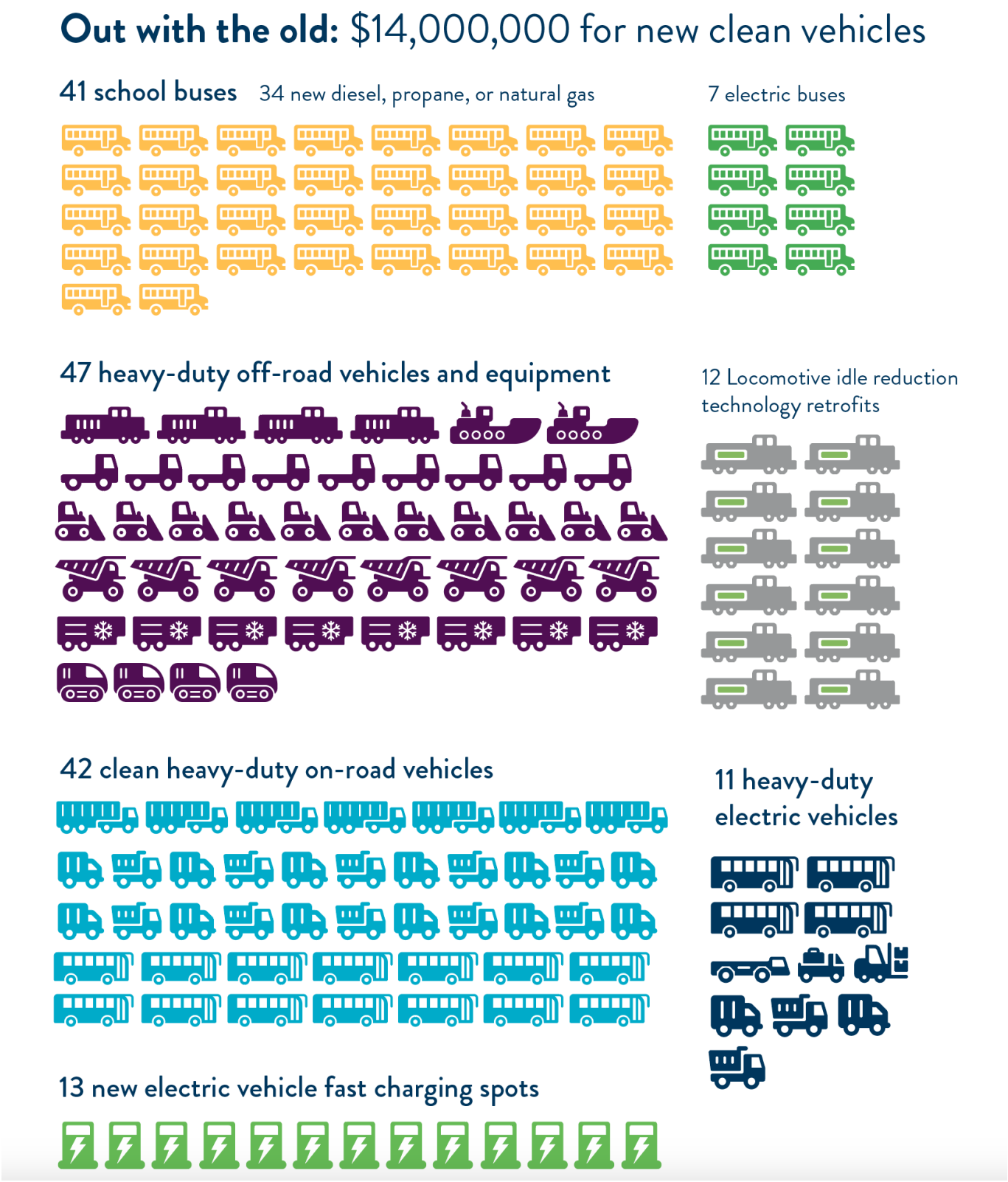
***Emission benefits for projects funded in Phase 3 compared to emissions expected if the old vehicles were to continue to operate for their remaining useful life. Calculated for nitrogen oxides (NO_X), fine particles ($PM_{2.5}$), and greenhouse gases (GHGs). NO_X and $PM_{2.5}$ emissions are calculated for tailpipe emissions only. GHG emissions benefits are calculated from well to wheel. See Appendix 6 for calculation methods.

Figure 3: Phase 3 estimated reductions by grant program (percent of total)



Phase 3 emissions reduction estimates show that a large majority -- 77% -- of the anticipated NO_X reductions will come from the locomotive idle-reduction grant program. Because of its high NO_X reducing potential, locomotive idle-reduction technology will be targeted specifically in Phase 3 to help meet the program wide goal of reducing 4,000 tons of NO_X emissions.

Figure 4: Phase 3 grants will replace hundreds of vehicles across the state.



Funding process

Projects will be funded through a competitive grant application process. The MPCA has developed a set of criteria for scoring projects and selecting those that best align with the program goals. The agency will continue to adapt and improve these criteria throughout Phase 3.

In most cases, the settlement requires that most of the funds for vehicle and equipment replacement be provided by equipment owners; the smaller portion of the total cost of the new vehicle will be covered by VW settlement funds (see next section for allowable matches). Eligible applicants are people and organizations who either own heavy-duty diesel vehicles and equipment or install EV charging infrastructure. Applicants may include, but are not limited to, local governments, tribes, school districts, state government agencies, metropolitan planning organizations, transit authorities, private businesses, and non-profit organizations.

As in Phase 1 and Phase 2, selected applicants will receive their funding as a reimbursement after the new equipment has been delivered and MPCA has received confirmation that their old equipment has been destroyed. Settlement funds cannot be used for vehicles, engines, or electric vehicle charging stations that are purchased before a grant agreement is signed between the owner and the MPCA. Additionally, under the clean heavy-duty off-road grant program, vehicle or equipment owners can work with third parties to submit aggregated applications for multiple vehicles owned by different organizations.

Phase 3 grant programs

Below are descriptions of the six grant programs the MPCA will administer during Phase 3.

Clean heavy-duty on-road vehicles grant program – 15% ($2,100,000)

Estimated emissions reductions: NO_X: 150-204 tons; $PM_{2.5}$: 7-11 tons; GHGs 2,217-15,431 tons

There are approximately 200,000 heavy-duty diesel class 4-8 delivery trucks in Minnesota. Heavy-duty diesel trucks have an estimated lifespan of 25 years, making replacements of older trucks a very cost-effective investment in terms of total pollution reduced per dollar spent. This program will fund the replacement of transit buses and large and medium-sized (class 4-8) delivery trucks, granting up to 25% of the overall cost of the vehicle. The MPCA may use a maximum funding cap to reflect that vehicles in this category vary greatly in size and that some can cost 2-3 times more than others, yet emission reductions may not be greater. During project selection, we will score additional points for GHG reductions and consider higher cap amounts or grant percentages for hybrid, ultra-low NO_X compressed natural gas (CNG), and ultra-low NO_X propane engines which cost more than clean diesel engines but achieve greater emission reductions.

Eligibility: Public and private organizations with eligible diesel trucks and transit buses operating 75% or more of their miles in Minnesota. Eligible fuel types include diesel, propane, natural gas, and fuel/electric hybrid. Gasoline vehicles are not eligible for funding under the terms of the settlement.

Why heavy-duty on-road vehicles? This category represents the largest on-road opportunity for emissions reductions, including GHG reductions. The heavy-duty on-road category contains diesel equipment that emit the most nitrogen oxides in Minnesota, and also offers some of the most cost-effective vehicle replacements. Compared with school bus replacements, heavy-duty on-road projects achieve greater NO_X, $PM_{2.5}$, and GHG reductions, as delivery trucks and transit buses travel two to six times further per year than school buses, with an estimated lifespan of 10 years longer.

Clean heavy-duty off-road equipment grant program – 28.5% ($3,990,000)

Estimated emissions reductions: NO_X: 310-561 tons; $PM_{2.5}$: 64-191 tons; GHGs: 9,253-21,097 tons

This program will fund the replacement or improvement of heavy-duty off-road equipment that is eligible under the DERA, such as marine engines, locomotives, trailer refrigeration units, terminal tractors, and off-road engines, and equipment or vehicles used in construction, handling of cargo, agriculture, mining, or energy production. On-road idle reduction and other eligible technology under DERA may also be eligible.

This program will fund projects up to the following levels, based on the matching levels allowed by DERA. Table 3 gives limits as of 2023, which are subject to change annually:

Table 3: DERA funding limits

Eligible Technologies	EPA Funding Limit	Mandatory Cost Share
Vehicle or Equipment Replacement with EPA Certified Engine	25%	75%
Vehicle or Equipment Replacement with Zero-tailpipe Emission Power Source	45%	55%
Engine Replacement with EPA Certified Engine	40%	60%
Engine Replacement with Zero-tailpipe Emission Power Source	60%	40%
EPA Verified Locomotive Idle Reduction Technologies	40%	60%
EPA Verified Exhaust After-treatment Retrofits	100%	0%

Note: DERA funding levels and equipment eligibility change every year. This program will follow the most recent rules as provided by the U.S. Environmental Protection Agency (EPA).

Eligibility: Public and private organizations across the state. Eligible fuel types include diesel, propane, natural gas, and electric. Gasoline equipment is not eligible for funding under the terms of the settlement. Groups of equipment owners may work with third parties to submit aggregated applications.

Aggregated applications: Aggregated applications/grant contractors are eligible under this program. Eligible contractors may request up to 10% for administrative costs above the grant amount requested per equipment with a maximum of up to $10,000 per piece of awarded equipment.

Why heavy-duty off-road equipment? Among the equipment types eligible for VW settlement funding, heavy-duty off-road equipment can be some of the largest emitters of air pollution and provide the most cost-effective emissions reductions. Through MPCA's experience with DERA and conversations with equipment owners, we know that many of these engines are rarely upgraded without financial incentive. There are many old diesels in this category in Minnesota that have no pollution controls at all.

Clean heavy-duty off-road locomotive idle reduction grant program – 1.5% ($210,000)

Estimated emissions reductions: NO_X: 2,193-2,484 tons; $PM_{2.5}$: 79-90 tons; GHGs: 10,889-12,336 tons

This program will target funding SmartWay Verified List of Idling Reduction Technologies (IRTs) for Locomotives. Technologies could include Automatic Engine Shut-Down/Start-up Systems (AESS), Auxiliary Power Units/Gen Sets (APU/GS), Fuel Operated Heaters aka Direct Fired Heaters (FOH aka DFH), and Shore Connection Systems (SCS).

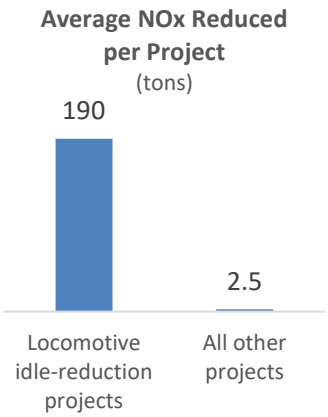
This program will fund projects up to 40% of the total cost of the Idle Reduction Technology.

Eligibility: Public and private organizations across the state. Eligible fuel types include diesel, propane, natural gas, and electric. Gasoline equipment is not eligible for funding under the terms of the settlement. Groups of equipment owners may work with third parties to submit aggregated applications.

Aggregated applications: Aggregated applications/grant contractors are eligible under this program. Eligible contractors may request up to 10% for administrative costs above the grant amount requested per equipment with a maximum of up to $10,000 per piece of awarded equipment.

Why locomotive idle reduction equipment? In Phase 1 of the Volkswagen Settlement plan, MPCA funded five locomotive idle-reduction projects that resulted in significant NO_X reductions. Cumulatively, the five projects reduced an estimated 952 tons of NO_X, an average of **190** tons per project. By comparison, the average NO_X reduction for all other projects that were funded is **2.5** tons.

In addition to the significant NO_X reductions, the locomotive idle-reduction projects are also the most cost-effective projects funded to date, with just **$90** spent in grant funding per ton of NO_X reduced. By comparison, the total cost effectiveness for all other projects that were funded is **$21,650** per ton of NO_X reduced.



Because of the high NO_X emissions reductions and cost effectiveness of these projects, we plan to target funding specifically for locomotive idle-reduction technologies to help meet our NO_X reductions goals. Under the assumption that we will be able to fund projects similar to those we funded in Phase 1, we estimate that with $210,000 in funding, we will be able to achieve between 2,193-2,484 tons of NO_X emissions reductions in Phase 3. This would result in achieving our goal of reducing 4,000 tons of NO_X! Because these projects yield high reductions, the MPCA may shift additional funds to these projects.

Locomotive idle-reduction technology such as Auxiliary Power Units (APU) and Automatic Engine Shutdown/Start up (AESS) allow locomotives to reduce time spent idling, thus reducing fuel consumption and emissions. APUs act as a small engine, warming and circulating coolant and oil, allowing the main locomotive to shut down while retaining the ability to restart immediately. *(Pictured right)* An APU installed on one of the five locomotive grant projects funded.

School bus (non-electric) grant program – 5% ($700,000)

Estimated emissions reductions: NO_X: 13-15tons; $PM_{2.5}$: 0.65-0.84 tons; GHGs: 929-1,207 tons

This program will provide grants for the replacement of eligible Class 4-8 school buses up to $15,000 each, or $20,000 each for operators serving school districts where 40% of students are eligible for free or reduced-cost lunch. The MPCA will provide a list of districts eligible for additional funding.

Eligibility: All Minnesota school bus operators, both public and private. Eligible replacement fuel types include diesel, propane, and natural gas. Gasoline vehicles are not eligible for funding under the terms of the settlement.

Bus owners intending to replace their diesel bus with an electric school bus are eligible to apply under the electric school bus grant program.

Why school buses? During the MPCA public engagement efforts, prioritizing projects that reduce pollution exposures for children and replacing aging school buses emerged as a main theme. During the first two phases of the VW program, Minnesota invested more than $3 million into clean school buses, along with more than $5 million into electric school buses. These investments have reduced diesel exhaust exposure to thousands of children throughout Minnesota, and this investment into school bus replacement in Phase 3 will enhance the overall air quality in all areas of the state.

Electric school bus grant program – 15% ($2,100,000)

Estimated emissions reductions: NO_X:3-6 tons; $PM_{2.5}$:0.07-0.44 tons; GHGs: 740-1,230 tons

This program will provide grants for the purchase of new electric school buses to replace older, Class 4-8, diesel school buses. Funding electric buses was the most common comment received throughout the comment period.

Using a portion of the funds in Phase 2, the MPCA created a pilot project to fund a limited number of electric school buses throughout Minnesota. Data collected from the pilot project will provide information on the electric vehicle technology for school buses and their practical application across Minnesota. Investment and implementation of new technology can present financial risk and variables that MPCA would like to learn about and report on to increase interest in future electric school bus grant opportunities.

Taking into consideration the data from the pilot project, as well as the information we learn from the variety of new federal and state electric school bus programs, the MPCA intends to release another RFP in Phase 3 for electric school bus adoption in Minnesota. The maximum grant amount will be 50-95% of the cost of a new electric bus. The exact amount will be determined after we have analyzed the data from our pilot project. The agency intends to offer increased grant amounts for school districts with 40% of students eligible for free or reduced-cost lunch.

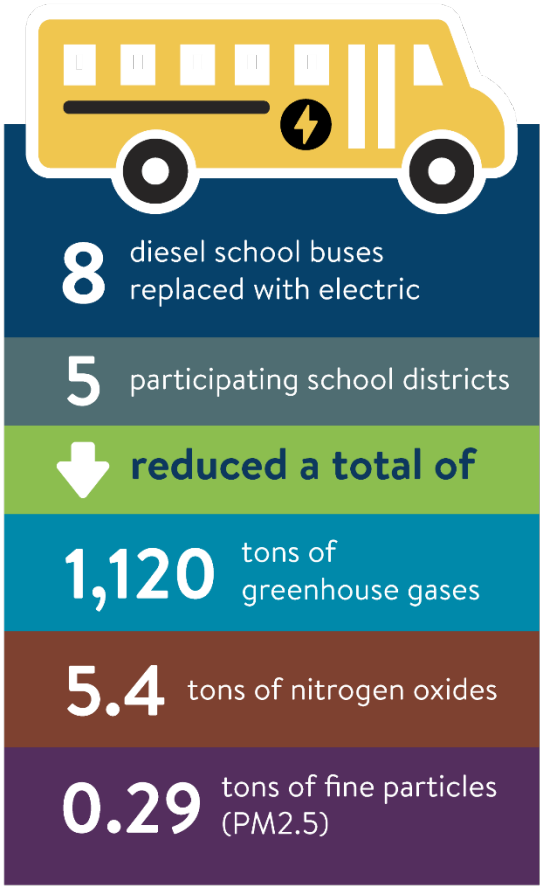
Eligibility: All Minnesota school bus operators, both public and private. Vehicle owners must replace a diesel bus with an electric bus.

Why electric school buses? During our previous public engagement, we received many comments encouraging more dedicated funding for electric school buses. The purchase price of an electric bus is considerably higher than that of a diesel one. However, compared to diesel units, electric buses can achieve operational savings in both maintenance and fuel costs over the life of the vehicle. They also generate fewer GHG emissions and other pollutants, making them a good choice for the environment and for children's health. Figure 5 summarizes the estimated emissions reductions achieved from our Phase 2 Electric School Bus Pilot Grant Program.

The MPCA recognizes and values the positive long-term, transformational results from funding an emerging clean technology. We also wish to balance that view with the awareness and understanding that the technology is still developing and improving as more data, especially on the operational side, is generated and made available.

The travel range of electric buses is increasing but may present potential challenges for rural and other high-mileage route areas. The Phase 2 Minnesota pilot project as well as electric school bus programs from other cold-weather states like Michigan, Massachusetts, and Vermont have provided much-needed information on electric school bus implementation, including operator training needs, cost-effectiveness, and geographical considerations. The MPCA will continue using results from these programs as data become available to help hone and improve our grant opportunities for electric buses. Future electric school bus requests for proposals may encourage partnerships with local utilities and other interested parties to help fund the adoption of electric buses.

Figure 5: Electric School Bus Pilot Grant Program



The **2021 Electric School Bus Pilot Grant** program provided funds to replace older diesel school buses with electric buses. In total, the program funded eight electric school buses throughout five school districts in Minnesota. An estimated 1,120 tons of greenhouse gases, 5.4 tons of nitrogen oxides, and 0.29 tons of fine particles were reduced as a result of the grant program. On average, 140 tons of greenhouse gases were reduced per bus. Emissions reductions were estimated by calculating the amount of emissions avoided over the remaining lifetime of the old diesel bus.

Heavy-duty electric vehicle grant program – 20% ($2,800,000)

Estimated emissions reductions: NO_X: 52-93 tons; $PM_{2.5}$: 2-5 tons; GHGs: 3,511-7,314 tons

This program provides funds for electric alternatives to heavy-duty vehicles and equipment. We anticipate particular interest in replacing transit buses and shuttles, delivery trucks, and airport ground support equipment. Heavy-duty EVs are newer technology and significantly more expensive than other diesel alternatives; organizations may therefore need more financial assistance to begin to adopt EV technology. With a larger investment in Phase 2, this grant program will provide a greater opportunity for our state to adopt and explore this technology.

Eligibility: Public and private organizations across the state. All heavy-duty vehicles (except school buses) and equipment eligible for replacement with an electric alternative are eligible to apply for funding. Airport ground support equipment and forklifts will also be considered in this category, as they are only eligible for electric replacements under the terms of the settlement. Vehicle or equipment replacements must be all-electric.

Why heavy-duty electric vehicles? Support for more EVs was the most common comment we received during our public engagement. Public transit providers, trucking companies, and Minnesotans across the state all said the MPCA should invest in this technology. EVs have no tailpipe emissions and support Minnesota's Next Generation Energy Act goals for reducing greenhouse gas emissions. Public input and survey results from Minnesota Department of Transportation's "Pathways to Decarbonizing Transportation in Minnesota" 2019 report

demonstrated strong support for electric trucks and buses (as well as passenger vehicles) to meet the low-carbon goals for Minnesota's transportation sector.

Electric vehicle charging station grant program – 15% ($2,100,000)

Estimated emissions reductions: NO_X: 0.96 tons; $PM_{2.5}$: 0.07 tons; GHGs: 4,724 tons

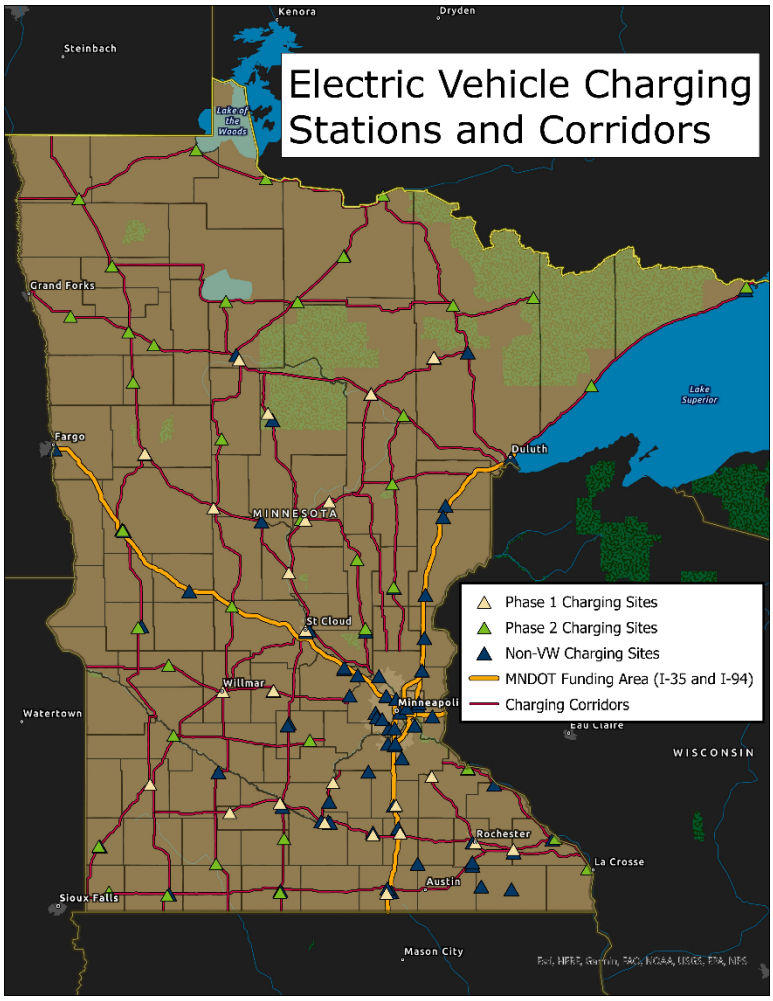
Minnesota will spend the funds in this grant program on EV direct current (DC) fast-charging stations along highway corridors in Greater Minnesota for public use. Approximately ninety percent ($2.1 million dollars) will be spent on an estimated 13 new DC fast-charging locations, reimbursed up to 80% of total eligible project costs or up to $150,000 per 150-kilowatt (kW) charging station installation. In order to build a statewide EV charging network across Minnesota, MPCA has identified preliminary roadways for funding (see Figure 6). Some locations have been proposed for installation of a DC fast-charging station while others are left open for selection by the grant recipient. These pre-selected locations are not mandatory as they were in Phase 1 but are merely possibilities based on traffic volume and location in proximity to existing and proposed EV charging stations. This flexibility is designed to create a complete EV charging network across Minnesota. These roadways will be grouped into corridors similarly to Phase 1. Applicants will be required to apply for installation of the entire corridor with multiple DC fast charging stations. The MPCA will consider the location of newly installed DC fast-charging stations when writing the request for proposals in an attempt to avoid duplication.

Eligibility: Applicants will be required to apply for installation of the entire corridor, including DC fast charging stations on multiple roadways. Grantees building fast-charging stations along corridors shall install them at approximately 15- to 70-mile increments along identified roadways approximately two miles or less from the exit. Fast-charging stations must provide a minimum of 150 kW. The MPCA may require the installation to include adequate electrical conduit at each station for future upgrades up to 350 kW and space for extending the parking pad. To maximize emission reductions, we will encourage charging stations to be powered by electricity generated from renewable sources (wind, solar) through either a utility renewable energy program or by purchasing renewable energy credits.

Why electric vehicle charging stations? Support for more EVs was the most common comment we received during our public engagement. Minnesotans strongly advocated for using the maximum amount allowed for EV charging stations (15%) under the terms of the settlement. Survey and comment data indicate support for a fast-charging network across the state to expand EV access for all Minnesotans and reduce range anxiety. Based on public comments received, MPCA plans to continue to install 150 kW chargers with necessary conduits for future upgrades along highway corridors. Funding 150 kW chargers will allow Minnesota to extend our fast-charging network more rapidly than if we were to require higher-cost chargers. 150kW charging also aligns with current vehicle technology.

Stakeholders also told us that fast-charging is harder to finance without subsidy; slower Level 2 chargers are lower cost and easier to fund without assistance.

Figure 6: Planned DC Fast Charging stations after funding in Phase 1 and Phase 2



The MPCA had identified preliminary roadways for funding in Phase 1 and Phase 2. The MPCA did not award funding for any DC fast-charging stations within the seven-county Twin Cities metro area due to the present publicly available options for charging.

Core application criteria

During Phase 3, as in Phase 1 and Phase 2, our 10-year goals will guide the application and project selection process. The process will consider the location of each replacement vehicle to meet our 60% Twin Cities metropolitan area and 40% Greater Minnesota investment goals, as well as our goals to invest in vulnerable communities. Each program's application process may have specific criteria based on the purpose of the program, but we plan to include the following core criteria in all applications for diesel replacement projects.

- Emissions reduction: Reducing NO_X, $PM_{2.5}$, and GHG
- Cost-per-ton: Cost-effectiveness of NO_x reductions based on cost paid with VW funds (not total project cost). Additionally, GHG reductions may be used to evaluate cost-effectiveness of certain projects
- Vulnerable populations: Vehicles and equipment operating in areas of concern for environmental justice, based on the MPCA's mapping tool

- Air quality and health: Reducing emissions in areas of higher expected levels of air pollution associated with diesel emissions as identified using MPCA's air pollution modeling tool and Minnesota Department of Health (MDH) data on rates of health conditions exacerbated by air pollutants found in diesel emissions

Most of the EV charging stations will be installed along highway corridors throughout Greater Minnesota. For EV charging infrastructure, other core criteria are:

- Cost effectiveness for fast-charging
- Renewable energy: Powering charging stations with electricity generated from renewable sources (wind, solar) through either a utility renewable energy program, by purchasing renewable energy credits, or on-site generation
- Vulnerable populations: Level 2 charging stations operating in areas of concern for environmental justice, based on the MPCA's mapping tool
- Air quality and health: Level 2 charging stations operating in areas of higher expected levels of air pollution as identified using MPCA's air pollution modeling tool and MDH data on rates of health conditions exacerbated by air pollutants found in diesel emissions

Additional criteria may be included in each application. Each grant Request for Proposal (RFP) will provide more detailed scoring. The MPCA may modify the mechanisms for ranking these criteria based on experience in project selection and application review from Phase 1 projects. These modifications will allow us to meet the long-term goals of the VW program.

Making funding accessible

The MPCA will continue to promote opportunities to apply for funds broadly, especially in rural communities and communities disproportionately impacted by air pollution. We have developed user-friendly applications so that vehicle and equipment owners are able to fill out the forms themselves without help from professional grant writers. We also surveyed potential applicants about their experience with the application process in order to continue to make improvements.

The MPCA is committed to working within the state's grant processes to create application processes that balance our need for information with the needs of applicants. We will continue to provide opportunities to ask questions about the funding applications, publicly share answers to those questions, and host meetings and webinars about funding opportunities. The purpose of these efforts is to lower the barriers to access these funds and help all Minnesotans with eligible projects understand the process, and especially to help people and organizations without experience in applying for state funds. We will continue to seek input from applicants and potential applicants on how to improve the process.

10-year program goals

Prior to Phase 1, MPCA solicited input from Minnesotans across the state to develop the long-term goals that would guide us over the 10 years of the program. More recent input from Minnesotans confirmed that these program goals should not change in Phase 3. Our aim is to use the funds to bring the most benefits to the state and most effectively manage the settlement funds.

We are committed to transparency and making our data accessible to the public. The agency developed an online interactive data tool that measures and tracks progress towards our program goals. Visit www.pca.state.mn.us/vwprogress to explore the data.

Achieve significant emissions reductions

Projects funded will target specific reductions in three categories:

- NO_X: 4,000 tons
- $PM_{2.5}$: 150 tons
- GHG: 100,000 tons

What Minnesotans told us: During public meetings throughout the first two phases of the VW program, we heard the need to continue reducing emissions from diesel sources by replacing vehicles and equipment with cleaner options. Given the progress toward achieving NOX emission reductions in Phase 1 and Phase 2, MPCA should continue to consider PM2.5 and GHG reductions in addition to NOX. Fine particles from diesel pollution are the main driver of health risks from breathing outdoor air in Minnesota. Reducing GHG emissions reduces the state's contribution to climate change and helps us meet Minnesota's emissions reductions goals.

Benefit all parts of the state

- 60% of the funds will be invested in the Twin Cities metropolitan area
- 40% of the funds will be invested in Greater Minnesota

Because 60% of the violating vehicles were registered in the Twin Cities metropolitan area and 40% were registered in Greater Minnesota, the funds will be targeted using the same 60:40 ratio over the course of the 10-year program (2018-2027).

What Minnesotans told us: There was strong feedback throughout the state that projects should be funded both in the Twin Cities metropolitan area and in Greater Minnesota.

In Greater Minnesota, Minnesotans told us they were interested in using EVs, but concerned about the lack of EV charging facilities connecting highways between Greater Minnesota cities that were not part of the Phase 1 or Phase 2 corridors. They were also concerned about the lack of charging stations in some areas. For school buses, there were concerns about the feasibility of new technology in Greater Minnesota.

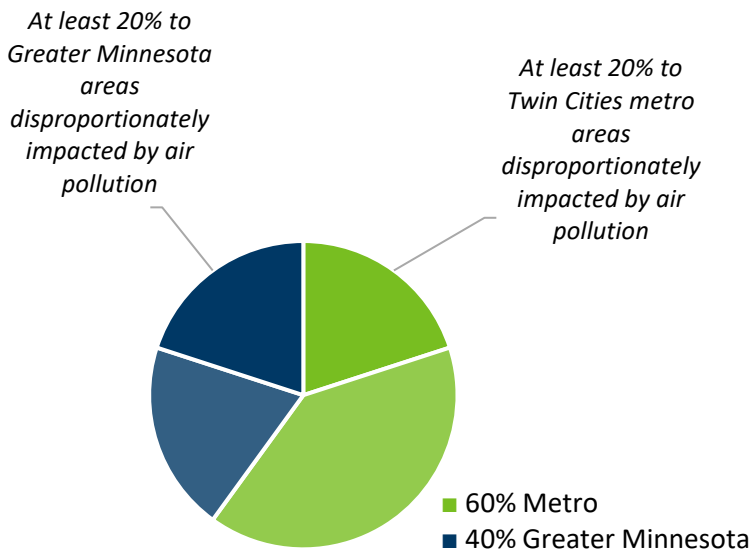
In the Twin Cities, residents shared concerns about school buses, and the need to replace more of them with newer technology vehicles, especially electric buses. They also discussed wanting to use EVs but felt concerned that without charging opportunities across the state, they would not be able to travel outside of the metropolitan area.

Help people and places disproportionately affected by air pollution

Over the course of Minnesota's 10-year VW program (2018-2027), at least 40% of the funds will be invested in areas disproportionately affected by air pollution in Minnesota. Half of this, or at least 20% of the overall funds, will go to such areas in the Twin Cities metro, and the other half (20% of overall funds) to such areas in Greater Minnesota.

The VW settlement directs states to consider the potential impact of the projects they fund on areas that "bear a disproportionate share of the air pollution burden within its jurisdiction." The MPCA considers areas disproportionately impacted by air pollution to be areas of concern for environmental justice**.**

Figure 7: How Minnesota will invest VW settlement funds



The criteria that define environmental justice areas have changed over the course of the VW program. New projects funded through the VW program have reflected our best understanding of the MPCA's environmental justice criteria available at the time. The current four criteria used to identify environmental areas are:

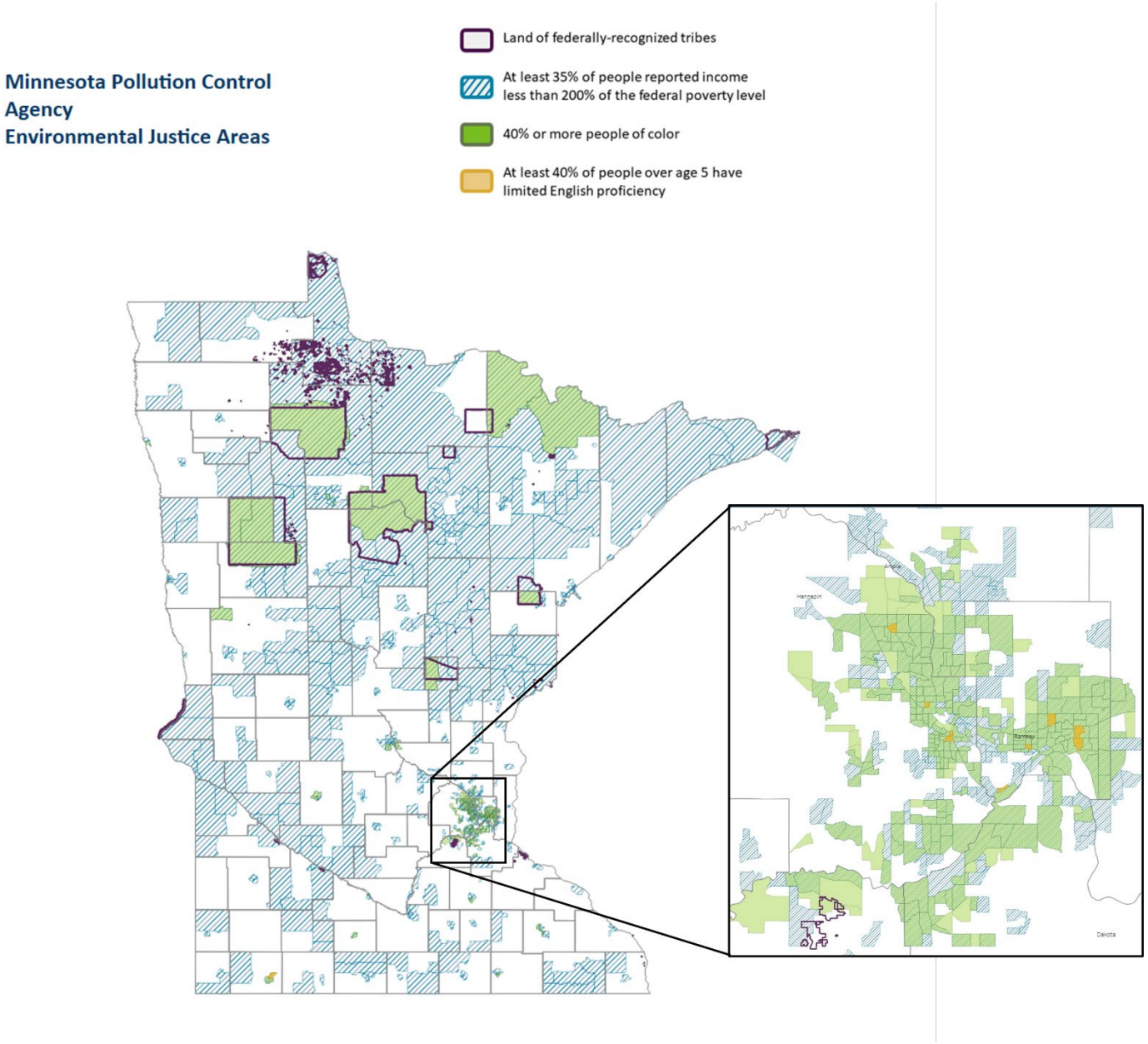
- Census tracts where more than 40% of residents are people of color or American Indians
- Census tracts where 35% or more of households have an income of less than 200% of the federal poverty level
- Tribal lands
- At least 40% of people have limited English proficiency

The MPCA considers environmental justice in the scoring criteria for selecting projects for funding when possible. Combining this demographic information with diesel exhaust exposure and health data can help identify overburdened communities.

What Minnesotans told us: During our public outreach efforts, Minnesotans asked the MPCA to emphasize projects benefiting air quality in areas with greater health effects from air pollution. Some communities not only experience higher levels of pollution, but also may not have the amenities, resources, and conditions to support healthy living. We are working with a variety of stakeholders and state, local, national, and tribal government partners to address disparities in air pollution exposure and related health effects with the VW settlement funds. We worked to meaningfully involve communities of color and low-income communities during the development and will continue to seek deeper engagement in the implementation of this plan.

The agency's Environmental Justice Advisory Group participated in stakeholder meetings, provided advice on engagement, and recommended ways to incorporate these concerns into our plan.

Figure 8: Minnesota areas of concern for environmental justice



An interactive version of this map is available on the MPCA's website.

Reduce exposures to harmful air pollutants and maximize health benefits

The MPCA will continue to use air quality modeling and health data to consider public health in choosing projects to fund. Agency modeling indicates that diesel exhaust is a primary driver of health risks from outdoor air pollution in the state. We use modeled air concentrations of NO_X and $PM_{2.5}$ to score submitted projects based on where a vehicle replacement or EV charging station will operate. We also score projects using MDH data on the prevalence of certain air pollution-related health outcomes in the area where a project will operate, such as asthma-related hospitalizations. In Phase 3, we will continue to work with MDH on the public health scoring criteria used to select projects to fund.

What Minnesotans told us: Many in our public meetings said we should focus on reducing people's exposures to diesel pollution and target funding in areas where people experience disproportionate levels of health outcomes related to air pollution.

Balance cost-effectiveness with other program goals

The MPCA will require applicants, including governments, to match settlement funds towards the cost of new vehicles. Cost-effectiveness will also be considered in project selection. We will strive to leverage other funding opportunities when possible.

What Minnesotans told us: We heard that we should continue striving to operate a cost-effective program that focuses on achieving real emissions reductions. Minnesotans also told us that we should achieve other important benefits with these funds. For instance, Minnesotans want funds to be used to replace school buses, which are important for reducing children's exposures to air pollution; however, school buses do not emit as much overall pollution as some other vehicles, such as trucks. While school bus replacements might not be the most cost-effective funding option, the opportunity to reduce exposures to children—a population particularly vulnerable to the effects of air pollution—makes them an important investment option. Therefore, cost effectiveness will be balanced with our other important goals.

Economic benefits

The VW settlement will not only benefit our air quality, but also our economy. Phase 3 projects will invest an anticipated $5.6 million in Greater Minnesota and $8.4 million in the Twin Cities metropolitan area and have far-reaching benefits beyond how the settlement funds are spent.

The reduction of vehicle emissions resulting from Phase 3 spending should contribute to improved air quality and related health outcomes, including fewer:

- Asthma attacks
- Respiratory symptoms
- Work-loss days
- Hospital admissions for respiratory and cardiovascular issues
- Non-fatal heart attacks
- Premature deaths

According to the EPA's 2018 report "Technical Support Document Estimating the Benefit per Ton of Reducing $PM_{2.5,}$" each dollar invested in clean diesel projects generates between $11 and $30 in public health benefits.

These investments also mean jobs for Minnesotans. New Flyer manufactures transit buses at their facility in St. Cloud, producing clean electric, hybrid, diesel, and CNG buses used around the region. Replacing engines in large equipment such as boats, locomotives, and construction equipment can take weeks or months of labor; a project may require between $60,000 and $200,000 to employ mechanics with the appropriate skills. In addition, companies in Minnesota such as ZEF Energy, ChargePoint, Werner Electric, and Hunt Electric install, operate, and maintain EV charging stations.

The MPCA's previous experience with the DERA demonstrated that heavy-duty vehicle replacements both reduce communities' exposures to harmful diesel pollution and benefit industries that rely on heavy equipment. Vehicle efficiency improvements reduce maintenance and operation costs for grant recipients, who can then invest the savings elsewhere. For instance, a 2016 DERA grant replaced two school buses in St. Louis County, which reduced

emissions from those buses by 95% and saved the school district more than $21,000 a year in maintenance and fuel costs.

EVs have lower fuel and maintenance costs than traditional models over the life of the vehicles. In addition, EV prices are decreasing, and the used market is expanding, making them an affordable choice for more people. Installing more charging stations around the state will make EVs even more accessible to all Minnesotans. Restaurants, shops, and tourist destinations will benefit from hosting charging stations when EV drivers eat, shop, or explore while they wait for their cars to charge up.

Public input

The MPCA sought public input early in the process to help develop our plan, and we have made every effort to create a plan for Phase 3 that reflects the input and needs of Minnesotans. There were additional opportunities for public review, comment and input built into the process as we finalized this plan.

The MPCA's VW settlement website (www.pca.state.mn.us/vw) offers details of the settlement, information on public meetings and other ways that were available to provide input, and data on the progress toward our 10-year goals. For more on our public engagement and what we heard, see Appendices 4 and 5.

Ongoing input

We will continue to engage with the public during the entirety of this program. We intend to solicit ideas and improve the program as we learn more about what is working in Minnesota. We will use our public website, email lists, and social media to keep the public informed of any projects and processes that may be of interest to them, as well as to receive ideas and suggestions to help improve the program.