



Chesapeake Bay Restoration

Transportation Settlement Emission Reduction BMP

Jeff Sweeney

EPA, Chesapeake Bay Program Office

Watershed Technical Workgroup Meeting

April 6, 2023



Transportation Settlement Emission Reduction BMP

- Asking to establish the BMP as planning BMP before jurisdictions address how to quantify benefits for progress.
 - The WTWG will be asked to vote on this decision item at the May meeting.
 - Planned load reductions can be added to a jurisdiction's WIP, Milestone scenario if desired.



Transportation Settlement Emission Reduction BMP

- From earlier WTWG survey results:
 - Nitrogen load reductions will be attributed edge-of-tide (EOT) reductions associated with emission reductions to all land uses with acres in the relevant jurisdiction (with the exception of Combined Sewer System).
 - EOT reduction is proportioned to all segments and land uses in the state according the relative acres.



Transportation Settlement Emission Reduction BMP

For Model Credit as a Planning BMP:

- Percentage of emitted oxidized and reduced nitrogen that reaches the tidal waters²

	Emitter					
	DE	MD	NY	PA	VA	WV
Reduced	5.27%	11.17%	2.43%	6.70%	8.93%	4.96%
Oxidized	1.83%	4.13%	0.83%	2.43%	3.36%	1.74%

- Using PA's 2018 Beneficiary Mitigation Plan as an example, a 55.6M lb NOx emission reduction state-wide yields a 411K lb nitrogen reduction edge-of-tide.



Crediting Load Reductions from Emission Reductions

- The nitrogen load reduction to the tidal Bay from reduced NO_x emissions is relatively small because of loss mechanisms in the atmosphere, on land, and in Chesapeake watershed streams and rivers.
 - About 50% of the NO_x emitted in the CB watershed falls back to the watershed, with the remainder transported beyond the watershed borders.
 - Of the 50% deposited throughout the CB watershed, about 90% is taken up by plants and soil or is denitrified.
 - After transport from the land to streams and rivers, about another 25% is lost through riverine denitrification and other mechanisms.
 - Therefore, the total nitrogen contribution to tidal waters is a few percent of the original NO_x emission reductions.



Transportation Settlement Emission Reduction BMP

For Model Credit as a Planning BMP:

- Each jurisdiction should review their Beneficiary Mitigation Plans, highlight the estimated NOX reductions in their proposal and send information to the CBP office, copying the WTWG Chair and Coordinator, along with:
 - 1) The planned mass of nitrogen (species) emission reduction
 - 2) Units of measure
 - 3) Spatial scale the plan applies to, e.g., state-wide
 - 4) The period of time covered by the estimates, e.g., yearly emission reductions, lifetime, etc.



Transportation Settlement Emission Reduction BMP

For Model Credit as a Planning BMP:

- Using PA's 2018 Beneficiary Mitigation Plan as an example:
"In total, the Department estimates that applying the entire amount of funding allocated to Pennsylvania under the State Trust Agreement (\$118.5 million) to fund the Eligible Mitigation Actions under this Beneficiary Mitigation Plan using the percent allocations noted above in Section III.D. would result in **total lifetime emission reductions of approximately 27,700 tons of NOX**. As stated above, actual emission reductions are dependent on the types of projects applicants submit for funding, how many applicants apply for funding, and which projects the Department selects to submit with a request for funding to the Trustee."



Jurisdictions' VW Environmental Mitigation Plans

Delaware:

Website - [VW Mitigation Plan - DNREC Alpha \(delaware.gov\)](#)

Plan - <https://documents.dnrec.delaware.gov/Air/Documents/delaware-vw-mitigation-plan.pdf>

District of Columbia:

Website – [Volkswagen Settlement | ddoe \(dc.gov\)](#)

Plan -

https://doee.dc.gov/sites/default/files/dc/sites/ddoe/page_content/attachments/2021%20update%20to%20VW%20Spending%20Plan%20Final.pdf

Maryland:

Website - <https://mde.maryland.gov/programs/Air/MobileSources/Pages/MarylandVolkswagenMitigationPlan.aspx>

Plan - [Maryland-Volkswagen-Mitigation-Plan.pdf](#)

New York:

Website- [VW Settlement Information - NYS Dept. of Environmental Conservation](#)

Plan - https://www.dec.ny.gov/docs/air_pdf/vwcleantransportplan.pdf

Pennsylvania:

Website - [Environmental Mitigation Trust Agreement \(pa.gov\)](#)

Plan - [Beneficiary Mitigation Plan \(state.pa.us\)](#)

Virginia:

Website - <https://www.deq.virginia.gov/get-involved/topics-of-interest/volkswagen-settlement-agreement>

Plan - <https://www.deq.virginia.gov/home/showpublisheddocument/6959/637515000774800000>

West Virginia:

Website - [Volkswagen Environmental Mitigation Trust Settlement \(wv.gov\)](#)

Plan - https://transportation.wv.gov/highways/programplanning/comment/VW-Settlement-Mitigation-Plan/Documents/FINAL_VWmitigationPlan_WV.pdf



Transportation Settlement Emission Reduction BMP

For Model Credit as a Planning BMP:

- Each jurisdiction should review their Beneficiary Mitigation Plans, highlight the estimated NOX reductions in their proposal and send information to the CBP office, copying the WTWG Chair and Coordinator, along with:
 - 1) The planned mass of nitrogen (species) emission reduction
 - 2) Units of measure
 - 3) Spatial scale the plan applies to, e.g., state-wide
 - 4) The period of time covered by the estimates, e.g., yearly emission reductions, lifetime, etc.



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Elements of the VW Settlement

For Model Credit as a Progress BMP:

- Each jurisdiction would need to have an understanding of what went into the estimate of the planned NOx reductions.
- In addition to tracking the BMPs, there needs to be a relation between an action taken and a NOx emission reduction.
- Would need a jurisdiction(s) to lead the effort for crediting Transportation Settlement Emission Reduction BMP a progress BMP.



Elements of the VW Settlement

- Vehicle Recall
- Mitigation
 - Eligible mitigation actions include projects to reduce NOx from heavy duty diesel sources with beneficiaries having flexibility to choose projects and actions that are the best options for their citizens.
 - Replacement or repower of medium and heavy-duty trucks, school/transit buses.
 - Engine repower for freight switcher locomotives, ferries, tugs, forklifts, and port cargo handling equipment.
 - Install ocean going vessel shorepower.
 - Charging infrastructure for light duty zero emission passenger vehicles.
- Zero Emission Vehicle (ZEV) Investment
 - The CAA 2.0 liter partial settlement requires Volkswagen to invest in ZEV charging infrastructure and in the promotion of ZEVs.



Elements of the VW Settlement

For Model Credit as a Progress BMP:

- Ideally, implementation data would likely come from the jurisdictional agency tracking, for example, expenditures.
- Using PA's 2018 Beneficiary Mitigation Plan as an example, management actions could include the following:

Commonwealth of Pennsylvania



Beneficiary Mitigation Plan

*In re: Volkswagen “Clean Diesel” Marketing, Sales Practices, and
Products Liability Litigation, No. 3:15-md-02672-CRB (N.D. Cal.)
(MDL 2672)*

**FINAL
May 2018**

Bureau of Air Quality
Pennsylvania Department of Environmental Protection
P.O. Box 8468
Harrisburg, PA 17105-8468
717-787-9495
www.dep.pa.gov

The following are lists of the Eligible Mitigation Actions, Eligible Mitigation Action Administrative Expenditures, and relevant definitions identified in Appendix D-2 of the State Trust Agreement.

I. Eligible Mitigation Actions and Mitigation Action Expenditures

A. Class 8 Local Freight Trucks and Port Drayage Trucks (Eligible Large Trucks).

1. Eligible Large Trucks include 1992-2009 engine model year Class 8 Local Freight or Drayage. For Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year trucks at the time of the proposed Eligible Mitigation Action, Eligible Large Trucks shall also include 2010-2012 engine model year Class 8 Local Freight or Drayage.
2. Eligible Large Trucks must be Scrapped.
3. Eligible Large Trucks may be Repowered with any new diesel or Alternate Fueled engine or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Large Trucks Mitigation Action occurs or one engine model year prior.
4. For Non-Government Owned Eligible Class 8 Local Freight Trucks, Beneficiaries may only draw funds from the Trust in the amount of:
 - a. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - b. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - c. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - d. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
5. For Non-Government Owned Eligible Drayage Trucks, Beneficiaries may only draw funds from the Trust in the amount of:
 - a. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - b. Up to 50% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - c. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - d. Up to 75% of the cost of a new all-electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
6. For Government Owned Eligible Class 8 Large Trucks, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - b. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.

- c. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
- d. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

B. Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses).

- 1. Eligible Buses include 2009 engine model year or older class 4-8 school buses, shuttle buses, or transit buses.
- 2. For Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year buses at the time of the proposed Eligible Mitigation Action, Eligible Buses shall also include 2010- 2012 engine model year class 4-8 school buses, shuttle buses, or transit buses.
- 3. Eligible Buses must be Scrapped.
- 4. Eligible Buses may be Repowered with any new diesel or Alternate Fueled or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Bus Mitigation Action occurs or one engine model year prior.
- 5. For Non-Government Owned Buses, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - b. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - c. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - d. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
- 6. For Government Owned Eligible Buses, and Privately Owned School Buses Under Contract with a Public School District, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - b. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - c. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - d. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

C. Freight Switchers.

- 1. Eligible Freight Switchers include pre-Tier 4 switcher locomotives that operate 1000 or more hours per year.
- 2. Eligible Freight Switchers must be Scrapped.

3. Eligible Freight Switchers may be Repowered with any new diesel or Alternate Fueled or All-Electric engine(s) (including Generator Sets), or may be replaced with any new diesel or Alternate Fueled or All-Electric (including Generator Sets) Freight Switcher, that is certified to meet the applicable EPA emissions standards (or other more stringent equivalent State standard) as published in the CFR for the engine model year in which the Eligible Freight Switcher Mitigation Action occurs.
4. For Non-Government Owned Freight Switchers, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).
 - b. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.
 - c. Up to 75% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).
 - d. Up to 75% of the cost of a new All-Electric Freight Switcher, including charging infrastructure associated with the new All-Electric Freight Switcher.
5. For Government Owned Eligible Freight Switchers, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).
 - b. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.
 - c. Up to 100% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).
 - d. Up to 100% of the cost of a new All-Electric Freight Switcher, including charging infrastructure associated with the new All-Electric Freight Switcher.

D. Ferries/Tugs.

1. Eligible Ferries and/or Tugs include unregulated, Tier 1, or Tier 2 marine engines.
2. Eligible Ferry and/or Tug engines that are replaced must be Scrapped.
3. Eligible Ferries and/or Tugs may be Repowered with any new Tier 3 or Tier 4 diesel or Alternate Fueled engines, or with All-Electric engines, or may be upgraded with an EPA Certified Remanufacture System or an EPA Verified Engine Upgrade.
4. For Non-Government Owned Eligible Ferries and/or Tugs, Beneficiaries may only draw funds from the Trust in the amount of:
 - a. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).
 - b. Up to 75% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).

5. For Government Owned Eligible Ferries and/or Tugs, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).
 - b. Up to 100% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).

E. Ocean Going Vessels (OGV) Shorepower.

1. Eligible Marine Shorepower includes systems that enable a compatible vessel's main and auxiliary engines to remain off while the vessel is at berth.
2. Components of such systems eligible for reimbursement are limited to cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution.
3. Marine shore power systems must comply with international shore power design standards (ISO/IEC/IEEE 80005-1-2012 High Voltage Shore Connection Systems or the IEC/PAS 80005-3:2014 Low Voltage Shore Connection Systems) and should be supplied with power sourced from the local utility grid.
4. Eligible Marine Shorepower includes equipment for vessels that operate within the Great Lakes.
5. For Non-Government Owned Marine Shorepower, Beneficiaries may only draw funds from the Trust in the amount of up to 25% for the costs associated with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components.
6. For Government Owned Marine Shorepower, Beneficiaries may draw funds from the Trust in the amount of up to 100% for the costs associated with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components.

F. Class 4-7 Local Freight Trucks (Medium Trucks).

1. Eligible Medium Trucks include 1992-2009 engine model year class 4-7 Local Freight trucks, and for Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year trucks at the time of the proposed Eligible Mitigation Action, Eligible Trucks shall also include 2010- 2012 engine model year class 4-7 Local Freight trucks.
2. Eligible Medium Trucks must be Scrapped.
3. Eligible Medium Trucks may be Repowered with any new diesel or Alternate Fueled or All-Electric engine, or may be replaced with any new diesel or Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Medium Trucks Mitigation Action occurs or one engine model year prior.
4. For Non-Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.

- b. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - c. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - d. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
5. For Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:
- a. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - b. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - c. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - d. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

G. Airport Ground Support Equipment.

- 1. Eligible Airport Ground Support Equipment includes:
 - a. Tier 0, Tier 1, or Tier 2 diesel powered airport ground support equipment; and
 - b. Uncertified, or certified to 3 g/bhp-hr or higher emissions, spark ignition engine powered airport ground support equipment.
- 2. Eligible Airport Ground Support Equipment must be Scrapped.
- 3. Eligible Airport Ground Support Equipment may be Repowered with an All- Electric engine, or may be replaced with the same Airport Ground Support Equipment in an All-Electric form.
- 4. For Non-Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may only draw funds from the Trust in the amount of:
 - a. Up to 75% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
 - b. Up to 75% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.
- 5. For Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 100% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
 - b. Up to 100% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.

- b. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - c. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - d. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
5. For Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:
- a. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - b. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - c. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - d. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

G. Airport Ground Support Equipment.

- 1. Eligible Airport Ground Support Equipment includes:
 - a. Tier 0, Tier 1, or Tier 2 diesel powered airport ground support equipment; and
 - b. Uncertified, or certified to 3 g/bhp-hr or higher emissions, spark ignition engine powered airport ground support equipment.
- 2. Eligible Airport Ground Support Equipment must be Scrapped.
- 3. Eligible Airport Ground Support Equipment may be Repowered with an All- Electric engine, or may be replaced with the same Airport Ground Support Equipment in an All-Electric form.
- 4. For Non-Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may only draw funds from the Trust in the amount of:
 - a. Up to 75% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
 - b. Up to 75% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.
- 5. For Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may draw funds from the Trust in the amount of:
 - a. Up to 100% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
 - b. Up to 100% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.

- c. Up to 60% of the cost to purchase, install and maintain eligible light-duty electric vehicle supply equipment that is available at a workplace but not to the general public.
- d. Up to 60% of the cost to purchase, install and maintain eligible light-duty electric vehicle supply equipment that is available at a multi-unit dwelling but not to the general public.
- e. Up to 33% of the cost to purchase, install and maintain eligible light-duty hydrogen fuel cell vehicle supply equipment capable of dispensing at least 250 kg/day that will be available to the public.
- f. Up to 25% of the cost to purchase, install and maintain eligible light-duty hydrogen fuel cell vehicle supply equipment capable of dispensing at least 100 kg/day that will be available to the public.

J. Diesel Emission Reduction Act (DERA) Option.

- 1. Beneficiaries may use Trust Funds for their non-federal voluntary match, pursuant to Title VII, Subtitle G, Section 793 of the DERA Program in the Energy Policy Act of 2005 (codified at 42 U.S.C. § 16133), or Section 792 (codified at 42 U.S.C. § 16132) in the case of Tribes, thereby allowing Beneficiaries to use such Trust Funds for actions not specifically enumerated in this Appendix D-2, but otherwise eligible under DERA pursuant to all DERA guidance documents available through the EPA. Trust Funds shall not be used to meet the non-federal mandatory cost share requirements, as defined in applicable DERA program guidance, of any DERA grant.

II. Eligible Mitigation Action Administrative Expenditures

- A. For any Eligible Mitigation Action, Beneficiaries may use Trust Funds for actual administrative expenditures (described below) associated with implementing such Eligible Mitigation Action, but not to exceed 15% of the total cost of such Eligible Mitigation Action. The 15% cap includes the aggregated amount of eligible administrative expenditures incurred by the Beneficiary and any third-party contractor(s).
 - 1. Personnel including costs of employee salaries and wages, but not consultants.
 - 2. Fringe Benefits including costs of employee fringe benefits such as health insurance, FICA, retirement, life insurance, and payroll taxes.
 - 3. Travel including costs of Mitigation Action-related travel by program staff, but does not include consultant travel.
 - 4. Supplies including tangible property purchased in support of the Mitigation Action that will be expensed on the Statement of Activities, such as educational publications, office supplies, etc. Identify general categories of supplies and their Mitigation Action costs.
 - 5. Contractual including all contracted services and goods except for those charged under other categories such as supplies, construction, etc. Contracts for evaluation and consulting services and contracts with sub-recipient organizations are included.
 - 6. Construction including costs associated with ordinary or normal rearrangement and alteration of facilities.



Elements of the VW Settlement

For Model Credit as a Progress BMP:

- In addition to tracking the BMPs, there needs to be a relation between an action taken and a NOx emission reduction.
 - Perhaps in tiers or categories of actions.
 - Significant undertaking for a CBP Expert Panel
- Is the juice worth the squeeze?
- Other ideas from the WTWG?
- Credit for progress scenarios would eventually be part of updates to regression equations that relate measured atmospheric concentrations to precipitation throughout the watershed.