United States Army Corps of Engineers, New York District
General Conformity Determination Notice

On October 30, 2012, New York State (DR-4085) and New Jersey State (DR-4086) declared Super Storm Sandy a Major Disaster. In response to the unprecedented breadth and scope of the damages sustained along the New York and New Jersey coastlines, the U.S. Congress passed Public Law (PL) 113-2 "Disaster Relief Appropriations Act 2013", also known as House Resolution (H.R.) 152-2 Title II which was signed into law on January 29, 2013. PL 113-2, which states "That the amounts... are designated by the Congress as being for an emergency requirement pursuant to section 251(b)(2)(A)(i) of the Balanced Budget and Emergency Deficit Control Act of 1985", provides funding for numerous projects to repair, restore and fortify the coastline in both states as a result of the continuing emergency as people and property along the coast remain in a vulnerable condition until the coastline is restored and fortified. To protect the investments by the Federal, State, local governments and individuals to rebuild damaged sites, it is imperative that these emergency disaster relief projects proceed as expeditiously as possible.

There are a number of coastal projects that were previously proposed and authorized but unconstructed (ABU). The Fire Island Inlet to Moriches Inlet (FIMI) Stabilization Project [River and Harbor Act of 1960, dated 14 July 1960] is an ABU project located in Suffolk County, New York which is anticipated to start construction during or after September 2014 and this document represents the General Conformity Determination required under 40CFR§93.154 by the United States Army Corps of Engineers (USACE). USACE is the lead Federal agency that will contract, oversee, approve, and fund the project's work, and thus is responsible for making the General Conformity determination for this project.

USACE has coordinated this determination with the New York State Department of Environmental Conservation (NYSDEC) [see NYSDEC letter provided in Attachment A] and the US Environmental Protection Agency, Region 2. Suffolk County is part of the larger New York, Northern New Jersey, Long Island nonattainment area is currently classified as "marginal" nonattainment for the 2008 8-hour ozone standard and nonattainment for particulate matter less than 2.5 microns (PM2.5). Ozone is controlled through the regulation of its precursor emissions, which include oxides of nitrogen (NOx) and volatile organic compounds (VOCs). PM2.5 control includes emissions of Sulfur dioxide (SO2), a precursor of PM2.5.

The equipment associated with this project that is evaluated under General Conformity (40CFR§93.153) includes direct and indirect nonroad diesel sources, such as dredging equipment and land based earth-moving equipment. The primary precursor of concern with this type of equipment is NOx, as VOCs, PM2.5, and SO2 are generated at significantly lower rates. The NOx emissions associated with the project are estimated to be 425 and 792 tons per calendar year for 2014 and 2015 respectively (see emissions estimates provided as Attachment A). The FIMI project and the greater FIMP project exceeds the NOx trigger level of 100 tons in any calendar year and as a result, the USACE is required to fully offset the emissions of this project. The project does not exceed the ozone related VOC trigger level of 50 tons, or the PM2.5 and SO2 trigger levels of 100 tons, in any calendar year.

USACE is committed to fully offsetting the emissions generated as a result of the disaster relief coastal work associated with this project. USACE recognizes that the feasibility and cost-effectiveness of each offset option is influenced by whether the emission reductions can be achieved without introducing delay to the construction schedule that would prevent timely disaster relief.

USACE will demonstrate conformity with the New York State Implementation Plan by utilizing the emission offset options listed below. The demonstration can consist of any combination of options, and is not required to include all or any single options to meet conformity. The options for meeting general conformity requirements include the following:

a. Emission reductions from project and/or non-project related sources in an appropriately close vicinity to the project location. In assessing the potential impact of this offset option on the construction schedule, USACE recognizes the possibility of lengthening the time period in which offsets can be generated as appropriate and allowable under the general conformity rule (40CFR§93.163 and §93.165).
b. Use of Surplus NOx Emission Offsets (SNEOs) generated under the Harbor Deepening Project (HDP). As part of the mitigation of the HDP, USACE and the Port Authority of New York & New Jersey developed emission reduction programs coordinated through the Regional Air Team (RAT). The RAT is comprised of the USACE, NYSDEC, New Jersey Department of Environmental Protection, EPA, and other stakeholders. SNEOs will be applied in concurrence with the agreed upon SNEO Protocols to ensure the offsets are real, surplus, and not double counted.
c. Use of Clean Air Interstate Rule (CAIR) ozone season NOx Allowances with a distance ratio applied to allowances, similar to the one used by stationary sources.

Due to unpredictable nature of dredge-related construction and the preliminary estimates of sand required to restore the integrity of the coastlines, the project emissions will be monitored as appropriate and regularly reported to the RAT to assist the USACE in ensuring that the project is fully offset.

In summary, USACE will achieve conformity for NOx using the options outlined above, as coordinated with the NYSDEC and coordinated through the RAT.

03 JULY 2014

Date

Paul Owen, P.E.
Colonel, Corps of Engineers

Emissions have been estimated using project planning information developed by the New York District, consisting of anticipated equipment types and estimates of the horsepower and operating hours of the diesel engines powering the equipment. In addition to this planning information, conservative factors have been used to represent the average level of engine load of operating engines (load factors) and the average emissions of typical engines used to power the equipment (emission factors). The basic emission estimating equation is the following:

E = hrs x LF x EF

Where:

E = Emissions per period of time such as a year or the entire project.
hrs = Number of operating hours in the period of time (e.g., hours per year, hours per project).
LF = Load factor, an estimate of the average percentage of full load an engine is run at in its usual operating mode.
EF = Emission factor, an estimate of the amount of a pollutant (such as NO_x) that an engine emits while performing a defined amount of work.

In these estimates, the emission factors are in units of grams of pollutant per horsepower hour (g/hphr). For each piece of equipment, the number of horsepower hours (hphr) is calculated by multiplying the engine's horsepower by the load factor assigned to the type of equipment and the number of hours that piece of equipment is anticipated to work during the year or during the project. For example, a crane with a 250-horsepower engine would have a load factor of 0.43 (meaning on average the crane's engine operates at 43% of its maximum rated power output). If the crane were anticipated to operate 1,000 hours during the course of the project, the horsepower hours would be calculated by:

250 horsepower x 0.43 x 1,000 hours = 107,500 hphr

The emissions from diesel engines vary with the age of an engine and, most importantly, with when it was built. Newer engines of a given size and function typically emit lower levels of pollutants than older engines. The NO_x emission factors used in these calculations assume that the equipment pre-dates most emission control requirements (known as Tier 0 engines in most cases), to provide a reasonable "upper bound" to the emission estimates. If newer engines are actually used in the work, then emissions will be lower than estimated for the same amount of work. In the example of the crane engine, a NO_x emission factor of 9.5 g/hphr would be used to estimate emissions from this crane on the project by the following equation:

$$\frac{107{,}500 \text{ hphr} \times 9.5 \text{ g } NO_x/\text{hphr}}{453.59 \text{ g/lb} \times 2{,}000 \text{ lbs/ton}} = 1.1 \text{ tons of } NO_x$$

As noted above, information on the equipment types, horsepower, and hours of operation associated with the project have been obtained from the project's plans and represent current best estimates of the equipment and work that will be required. Load factors have been obtained from various sources depending on the type of equipment. Marine engine load factors are primarily from a document associated with the New York and New Jersey Harbor Deepening Project (HDP): "Marine and Land-Based Mobile Source Emission Estimates for the Consolidated Schedule of 50-Foot Deepening Project, January 2004," and from EPA's 1998 Regulatory Impact Analysis (RIA): "EPA Regulatory Impact Analysis: Control of Commercial Marine Vessels." Land-side nonroad equipment load factors are from the documentation for EPA's NONROAD emission estimating model, "Median Life, Annual Activity, and Load Factor Values for Nonroad Engine Emissions Modeling, EPA420-P-04-005, April 2004."

Emission factors have also been sourced from a variety of documents and other sources depending on engine type and pollutant. The NO_x emission factors for marine engines have been developed primarily from EPA documentation for the Category 1 and 2 standards (RIA, "Control of Emission from Marine Engines, November 1999) and are consistent with emission factors used in documenting emissions from the HDP, while the VOC emission factors for marine engines are from the Port Authority of New York and New Jersey's "2010 Multi-Facility Emissions Inventory" which represent the range of marine engines operating in the New Jersey harbor and coastal region in terms of age and regulatory tier level. Nonroad equipment NO_x emission factors have been derived from EPA emission standards and documentation, while the nonroad VOC emission factors have been based on EPA's Diesel Emissions Quantifier (DEQ, accessed at: *www.epa.gov/cleandiesel/quantifier/*), run for moderately old equipment (model year 1995). On-road vehicle emission factors have also been developed from the DEQ, assuming a mixture of Class 8, Class 6, and Class 5 (the smallest covered by the DEQ) on-road trucks.

As noted above, the emission factors have been chosen to be moderately conservative so as not to underestimate project emissions. Actual project emissions will be estimated and tracked during the course of the project and will be based on the characteristics and operating hours of the specific equipment chosen by the contractor to do the work.

The following pages summarize the estimated emissions of pollutants relevant to General Conformity, NO_x, VOC, $PM_{2.5}$, and SO_2 in sum for the project and by calendar year based on the schedule information also presented (in terms of operating months per year). Following this summary information are project details including the anticipated equipment and engine information developed by the New York District, the load factors and emission factors as discussed above, and the estimated emissions for the project by piece of equipment.

U.S. Army Corps of Engineers
NAN - ABU Sandy-Related Projects
General Conformity Related Emission Estimates
Fire Island Inlet to Moriches Inlet (FIMI) 27-Feb-14
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General Conformity-applicable emissions per calendar year

Pollutant	2013	2014	2015	2016	2017	2018	2019	2020
NO_x	0.0	425	792	0.0	0.0	0.0	0.0	0.0
VOC	0.0	13	25	0.0	0.0	0.0	0.0	0.0
$PM_{2.5}$	0.0	19	35	0.0	0.0	0.0	0.0	0.0
SO_2	0.0	0.3	0.5	0.0	0.0	0.0	0.0	0.0

Project Duration and Percent of Dredged Volume

Cu yds	2013	2014	2015	2016	2017	2018	2019	2020
8,740,365	0%	35%	65%	0%	0%	0%	0%	0%

U.S. Army Corps of Engineers
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Dredging Equipment

Equipment Type	Engine Type	Horsepower	Load factor	Category & tier	Emission Factors NO_x	VOC	$PM_{2.5}$	SO_2	Propulsion Emissions, Whole Project Hours	NO_x	VOC	$PM_{2.5}$	SO_2	Dredging Emissions, Whole Project Hours	NO_x	VOC	$PM_{2.5}$	SO_2
					g/hphr					tons					tons			
Hopper dredge,	Propulsion	4,500	0.66	Cat 2, Tier 0	9.7	0.37	0.51	0.0050	3,319	105	4.0	5.5	0.05	12,238	389	14.8	20.4	0.20
large (based on Dodge Isl,	Dredge pumps	3,800	0.80	Cat 2, Tier 1	7.5	0.20	0.29	0.0048	3,319	0	0.0	0.0	0.00	12,238	308	8.2	11.9	0.20
Padre Isl, Terrapin Isl)	Jet pump	2,700	0.80	Cat 1, Tier 0	7.5	0.20	0.29	0.0048	3,319	0	0.0	0.0	0.00	12,238	219	5.8	8.5	0.14
	Auxiliary	2,400	0.40	Cat 2, Tier 0	7.5	0.20	0.29	0.0048	3,319	26	0.7	1.0	0.02	12,238	97	2.6	3.8	0.06
Booster pump	Pumps	3,600	0.80	Cat 2, Tier 0	9.7	0.37	0.51	0.0050						1,072	33	1.3	1.7	0.02
	Auxiliary	180	0.40	Cat 1, Tier 0	7.5	0.20	0.29	0.0048						1,072	0.6	0.02	0.02	0.00
									Emissions, tons	**131**	**5**	**7**	**0.07**		**1,047**	**33**	**46**	**0.62**

Support Vessels

Equipment Type	Engine Type	Horsepower	Load factor	Category & tier	Emission Factors NO_x	VOC	$PM_{2.5}$	SO_2	Vessel Emissions, Whole Project Hours	NO_x	VOC	$PM_{2.5}$	SO_2
					g/hphr					tons			
Crew boat	Propulsion	100	0.50	Cat 1, Tier 0	7.5	0.20	0.29	0.0048	8,332	3.4	0.1	0.1	0.002
	Auxiliary	40	0.40	Cat 1, Tier 0	7.5	0.20	0.29	0.0048	8,332	1.1	0.0	0.0	0.001
Survey boat	Propulsion	100	0.50	Cat 1, Tier 0	7.5	0.20	0.29	0.0048	8,332	3.4	0.1	0.1	0.002
	Auxiliary	40	0.40	Cat 1, Tier 0	7.5	0.20	0.29	0.0048	8,332	1.1	0.0	0.0	0.001
Tender tug	Propulsion	250	0.50	Cat 1, Tier 0	7.5	0.20	0.29	0.0048	24,995	25.8	0.7	1.0	0.017
	Auxiliary	50	0.40	Cat 1, Tier 0	7.5	0.20	0.29	0.0048	24,995	4.1	0.1	0.2	0.003
									Emissions, tons	**39**	**1.0**	**1.4**	**0.03**

Land-side equipment

Equipment Type	Engine Type	Horsepower	Load factor	Engine tier	Emission Factors NO_x	VOC	$PM_{2.5}$	SO_2	Land-side Emissions,* Whole Project Hours	NO_x	VOC	$PM_{2.5}$	SO_2
					g/hphr					tons			
Integrated tool carrier	Cat IT-14G	95	0.59	Tier 0	9.5	0.19	0.16	0.0050	8,333	4.9	0.1	0.1	0.003
Dozer	Cat D8T	310	0.59	Tier 0	9.5	0.19	0.16	0.0050	8,333	16.0	0.3	0.3	0.008
Loader	Cat 953D	148	0.59	Tier 0	9.5	0.19	0.16	0.0050	8,333	7.6	0.2	0.1	0.004
									Emissions, tons	**29**	**0.6**	**0.5**	**0.02**

Total Project Emissions

Component	NO_x	VOC	$PM_{2.5}$	SO_2
			tons	
Dredge	1,178	37	53	0.7
Support Vessels	39	1.0	1.4	0.0
Land-side	29	0.6	0.5	0.0
Total project emissions	**1,245**	**39**	**55**	**0.7**
Emissions w/o land-side	**1,217**	**38**	**54**	**0.7**

* Per NYDEC finding, land-side emissions are accounted for in the applicable SIP and are therefore not considered in the General Conformity evaluation.

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NAN - ABU Sandy-Related Projects
General Conformity Related Emission Estimates
Fire Island Inlet to Moriches Inlet (FIMI)
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Hopper Dredge	Transiting Activity							Dredging Activity			Booster pump activity	
Contract / Area	Borrow Area	Distance to borrow miles	Trips per day	Miles per day	Months	Miles per Area	Hours per Area	Gross cu yds per hour	Gross cu yds total	Hours per Area	Booster Pump Needed	Hours per Area
Contract 1												
11	3A	6.08	4.7	57.2	1.07	1,836	184	737	537,405	729	0	0
12	3A	6.08	4.7	57.2	2.46	4,221	422	737	1,230,875	1,670	1	615
13	3A	6.08	4.7	57.2	1.92	3,295	329	737	960,445	1,303	0	0
Contract 2												
1	2C	12.5	3.7	92.5	2.30	6,383	638	585	913,124	1,561	1	457
2	2C	19.18	3.0	115.1	1.74	6,008	601	471	555,528	1,179	0	0
3	2C	8.34	4.2	70.1	1.07	2,250	225	673	489,983	728	0	0
Contract 3												
4	2C	6.65	4.5	59.9	1.31	2,354	235	720	642,559	892	0	0
5	2C	5.79	4.7	54.4	0.70	1,142	114	745	352,557	473	0	0
6	2B	4.55	4.9	44.6	1.04	1,392	139	783	552,089	705	0	0
7	2A	4.35	5.0	43.5	0.04	52	5	787	20,147	26	0	0
8	2A	4.26	5.0	42.6	2.74	3,502	350	794	1,479,850	1,864	0	0
9	2H	1.89	5.6	21.2	0.14	89	9	885	85,821	97	0	0
10	2H	1.33	5.7	15.2	1.49	679	68	910	919,982	1,011	0	0
				Contract subtotals								
				Contract 1	5.5	9,352	935	737	2,728,725	3,702		615
				Contract 2	5.1	14,641	1,464	565	1,958,635	3,468		457
				Contract 3	7.5	9,210	920	800	4,053,005	5,068		0
				Project total	**18**	**33,204**	**3,319**	**714**	**8,740,365**	**12,238**		**1,072**

Assuptions	
Assumed avg operating days/month:	30
Assumed travel speed, kts:	10
Assumed booster pump rate, cuyds/hr	2,000
Calc'd tons per million cu yds:	142

	Duration, months (appx)		Percent of volume		
	2014	2015	overall	2014	2015
· Contract 1: September 2014 to February 2015	4	2	31.2%	20.8%	10.4%
· Contract 2: November 2014 to March 2015	2	3	22.4%	9.0%	13.4%
· Contract 3: December 2014 to Aug 2015	1	8	46.4%	5.2%	41.2%
			100.0%	34.9%	65.1%

USACE - New York District
NAN - ABU Sandy-Related Projects
General Conformity Related Emission Estimates
Methodology
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The emission estimating methodology is designed to be conservatively high in terms of calculated horsepower-hours. Operating parameters and schedules may be revised as project plans are developed in more detail.

Equipment & Engines to be Used	Nominal Horsepower	Load Factor	Emission Factors NO_x	VOC	$PM_{2.5}$	SO_2
				g/hphr		
Dredge & related						
Dredge engines	4,500	0.66	9.7	0.37	0.51	0.0050
Pump engines	3,800	0.80	7.5	0.20	0.29	0.0048
Dredge jet pump engines	2,700	0.80	7.5	0.20	0.29	0.0048
Dredge auxiliary engines	2,400	0.40	7.5	0.20	0.29	0.0048
Booster pump	3,600	0.80	9.7	0.37	0.51	0.005
Booster pump aux.	180	0.40	7.5	0.20	0.29	0.0048
Support Vessels						
Crew boat propulsion	100	0.50	7.5	0.20	0.29	0.0048
Crew boat auxiliary	40	0.40	7.5	0.20	0.29	0.0048
Survey boat propulsion	100	0.50	7.5	0.20	0.29	0.0048
Survey boat auxiliary	40	0.40	7.5	0.20	0.29	0.0048
Tender tug propulsion	250	0.50	7.5	0.20	0.29	0.0048
Tender tug auxiliary	50	0.40	7.5	0.20	0.29	0.0048
Land-side equipment						
Integrated tool carrier	95	0.59	9.5	0.19	0.16	0.0050
Dozer	310	0.59	9.5	0.19	0.16	0.0050
Loader	148	0.59	9.5	0.19	0.16	0.0050

Terms

Horsepower	hp	Total horsepower of type of dredge likely to be used on projects
Load factor	LF	Load factors from NONROAD model tables for similar equipment
Operating hours per project	hrs	Operating hours on the project based on project engineer's experience, hours per day, volume of work, expected production and activity rates.
Emission factors	EF	NOx EF derived from emission standards for similar engine types, g/hp-hr

Calculations

Emissions calculated using the following equation:

Emissions, tons per year = (hp x LF x hrs x EF)/(453.59 g/lb x 2,000 lbs/ton)

VOC, $PM_{2.5}$ emission factors:

2010 PANYNJ Emissions Inventory, marine vessel emisison factors used as a reasonable surrogate for the variety of vessels in use in the New York/New Jersey area in the absence of specific information regarding the vessels to be used on any specific project.

		VOC	$PM_{2.5}$
Propulsion (g/kWhr)	Table 5.35	0.50	0.68
Propulsion (g/hphr)		0.37	0.51
Auxiliary (g/kWhr)	Table 5.35	0.27	0.39
Auxiliary (g/hphr)		0.20	0.29
Off-road: DEQ results for representative 600 hp crawler tractor (MY 1995)			
Default hrs/year:	936	Horsepower: 600	
Emissions, short tons per year:		0.1925	0.1667
Estimated EF, g/hphr:*		0.183	0.16
Conversion factor		1.053	VOC/THC
Estimated VOC EF, g/hphr:		0.19	

* Hydrocarbons provided by DEQ converted to VOC

Assumed load factor for off-road: 0.59 (from PANYNJ Emissions Inventory)

Conversion factor 0.7457 kW/hp g/kWhr x kW/hp = g/hphr

SO_2 emission factors:

Quantification of emissions from ships associated with ship movements between ports in the European Community
Final Report, July 2002, Entec UK Limited. Chapter 2

	g/kWhr	g/hphr	g S/hphr	g SO_2/hphr
Medium and high speed auxiliary, distillate fuel (Table 2.10)	217	162	0.0024	0.0048
Medium and high speed propulsion, distillate fuel (Table 2.09)	223	166	0.0025	0.0050

(maneuvering)

ULSD as of 2014: 15 g S/1,000,000 g fuel

Land-side diesel engines exhibit similar fuel consumption characteristice as marine propulsion engines,* so the same SO2 EFs are used.

*Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling - Compression-Ignition
EPA-420-R-10-018 NR-009d July 2010
Table C1. Average Emission Test Results for 1988 to 1995 Model Year Engines: 0.367 lb fuel/hphr
From the text: "Due to lack of data, the brake-specific fuel consumption (BSFC) for the 1988-and-later pre-control (Tier 0) engines is used for all engines, both earlier pre-control engines and later engines subject to emissions standards."
Converted to g/hphr: 167 g/hphr

ANDREW M. CUOMO
GOVERNOR

JOE MARTENS
COMMISSIONER

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION
ALBANY, NEW YORK 12233-1010

JAN 2 7 2014

Colonel Paul E. Owen, P.E.
Commander - NY District
U.S. Army Corps of Engineers
26 Federal Plaza
New York, NY 10278

Dear Colonel Owen:

The purpose of this letter is to assist the United States Army Corps of Engineers (USACE) in complying with the General Conformity requirements of the Clean Air Act (CAA) as USACE performs coastal restoration and repair projects in New York.

Superstorm Sandy significantly diminished the protective value of New York's beach and dune system, leaving New York coastal communities vulnerable to damage from future storms. Coastal restoration and repair projects will enhance the sustainability of New York's coastline and diminish the impacts of future storms. The New York Department of Environmental Conservation (DEC) has been working with your District to ensure that federal emergency coastal restoration and repair projects start as quickly as possible.

Emissions of oxides of nitrogen (NO_X) for several of the Authorized but Unconstructed (ABU) beach and dune repair/restoration projects will be greater than 100 tons per year. As a result, USACE must demonstrate that those projects meet the General Conformity requirements of the CAA. Under the General Conformity provisions, federal agencies must work with state governments in nonattainment areas to ensure that their federal actions conform to the State Implementation Plans (SIPs) established by the state.

Based on the emission estimates received to date, the USACE must demonstrate compliance for the following projects:

- East Rockaway to Rockaway Inlet - Oceanfront and Back Bay;
- Fire Island to Montauk Point - beach fill, dunes, groin modification; and
- Long Beach - beach fill, dunes, groins.

While the DEC does not have the authority to exempt these critical ABU projects from the General Conformity requirements, there are a number of options available to the USACE to demonstrate conformity in the New York-New Jersey-Connecticut nonattainment area. The demonstration can consist of any combination of options and there is no requirement to include

all of the options to meet conformity. USACE may demonstrate conformity with the New York SIP by utilizing the emission offset options listed below to offset the emissions from all "Waterside Equipment[1]":

a. Emission reductions from project and/or non-project related sources in an appropriately close vicinity to the project location. In assessing the potential impact of this offset option on the construction schedule, the possibility of lengthening the time period in which offsets can be generated as appropriate and allowable under the general conformity rule should be recognized (40 CFR §93.163).

b. Use of Surplus NOx Emission Offsets (SNEOs) generated under the Harbor Deepening Project (HDP). As part of the mitigation of the HDP, USACE and the Port Authority of New York & New Jersey developed emission reduction programs coordinated through the Regional Air Team (RAT). The RAT is comprised of the USACE, NJDEP, EPA, DEC, and other stakeholders. SNEOs will be applied in concurrence with the agreed upon SNEO Protocols to ensure the offsets are real, surplus, and not double counted. As noted in the SNEO protocol, Proctor & Gamble (P&G) Emission Reduction Credits (ERCs) are not part of the SNEOs generated under the HDP. The need for future application of the P&G ERCs under the HDP, while unlikely, will impact the surplus determination under the SNEO protocol.

c. Use of Clean Air Interstate Rule ozone season NOx Allowances.

Due to unpredictable nature of dredge-related construction and the preliminary estimates of sand required to restore the integrity of the coastlines and DEC's assessment that land based equipment emissions are in the SIP, in order to demonstrate compliance, project emissions must be monitored as appropriate and regularly reported to the RAT to assist the USACE in ensuring that each project is fully offset.

DEC staff is committed to working closely with USACE to ensure a smooth and expeditious process. Should you have any further questions or need additional assistance, please do not hesitate to contact David J. Shaw, Director, Division of Air Resources at (518) 402-8452.

Sincerely,

Joseph J. Martens

c: D. Shaw

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1 Based on the estimates provided, DEC has determined for offset purposes that "Waterside Equipment" refers to emissions from equipment identified as Dredge, Auxiliary, Pumps and Barge. For the purposes of general conformity, the "Shore Crew Support and Groin Construction Equipment," identified as Dozer, Excavator and Front End Loader are considered to be part of the State's nonroad SIP inventory.