APPENDIX D

Air Quality/Health Risk Assessment

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APPENDIX D1 – FEIS/FEIR

CRITERIA POLLUTANT EMISSION CALCULATIONS

Year 2010 Peak Daily Operational Emissions

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Table D1.2.Alt1-2010-PD1. Peak Daily Ship Visit and Throughput Data - Berths 136-147 Terminal

Project Scenario/Ship Type	*Peak Daily Ship Visits*	*Max TEU Moves/ Peak Day (1)*	*Peak Daily TEU Moves*	*Hoteling Hours/ Day (2)*
Baseline - Year 2003				
Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
Containerships < 3,000 TEU	1	2,992	2,992	24.0
Subtotal	**2**		**5,984**	
Project Year 2007				
Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0
Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
Containerships < 3,000 TEU				
Subtotal	**2**		**6,732**	
Project Year 2010				
Containerships 8,000 - 9,000 TEU				
Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0
Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
Containerships < 3,000 TEU				
Subtotal	**2**		**6,732**	
Project Year 2025				
Containerships 8,000 - 9,000 TEU				
Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
Containerships < 3,000 TEU	1	3,927	1,963	24.0
Subtotal	**3**		**10,799**	
Project Year 2038				
Containerships 8,000 - 9,000 TEU				
Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
Containerships < 3,000 TEU	1	3,927	1,963	24.0
Subtotal	**3**		**10,799**	

Notes: (1) Assumes that 4 cranes would service <3,000 and 3-5,000 TEU vessels @ 1600 lifts/day = 2992 TEUs/
5 cranes would service 5-6,000 TEU vessels @ 2000 lifts/day = 3740 TEUs/day, and 6 cranes would s
8-9,000 TEU vessels @ 2400 lifts/day = 4488 TEUs/day (TraPac 2006) during 16 hours of service.
Beginning in year 2015, crane service time increases to 21 hours/day and 4-, 5-, and 6- crane productic
3,927, 4,909, and 5,890 TEUs/day.

(2) There are 10 cranes present from 2007 through 2011, then 12 cranes beginning in 2012.

Table D1.2.Alt1-2010-PD2. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year (1)(2)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
Subtotal	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
Subtotal	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.06	0.13	1.54	0.88	0.13
Containerships < 3,000 TEU					
Subtotal	**0.06**	**0.13**	**1.54**	**0.88**	**0.13**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.08	0.18	2.02	1.13	0.17
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.08**	**0.18**	**2.02**	**1.13**	**0.17**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.08	0.18	2.02	1.13	0.17
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.08**	**0.18**	**2.02**	**1.13**	**0.17**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.
(2) Assumes VSRP compliance for all project years.

Table D1.2.Alt1-2010-PD3. Peak Daily Cargo Vessel Emissions within the POLA Precautionary Area - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
Subtotal	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
Subtotal	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.02	0.20	0.10	0.02
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.02**	**0.20**	**0.10**	**0.02**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.02	0.03	0.24	0.12	0.02
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.03**	**0.24**	**0.12**	**0.02**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.02	0.03	0.24	0.12	0.02
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.03**	**0.24**	**0.12**	**0.02**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD4. Peak Daily Cargo Vessel Emissions for Transit within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
Subtotal	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
Subtotal	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.02	0.02	0.10	0.02	0.01
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.02**	**0.10**	**0.02**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.03	0.03	0.15	0.04	0.02
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.03**	**0.03**	**0.15**	**0.04**	**0.02**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.03	0.03	0.15	0.04	0.02
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.03**	**0.03**	**0.15**	**0.04**	**0.02**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD5. Peak Daily Cargo Vessel Emissions for Docking Activities - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.00**	**0.03**	**0.00**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.01	0.01
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.01**	**0.04**	**0.01**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.01	0.01
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.01**	**0.04**	**0.01**	**0.01**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD6. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year (1)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
Subtotal	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
Subtotal	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.08	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.08**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.11	0.01
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.14**	**0.11**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.11	0.01
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.14**	**0.11**	**0.01**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

(2) Assumes VSRP compliance for all project years.

Table D1.2.Alt1-2010-PD7. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year (1)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.06	0.04	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.06**	**0.04**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.06	0.01
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.06**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.06	0.01
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.06**	**0.01**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD8. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year (1)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
Subtotal	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
Subtotal	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.06	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.06**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.15	0.09	0.01
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.15**	**0.09**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.15	0.09	0.01
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.15**	**0.09**	**0.01**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD9. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Docking within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year (1)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.03	0.02	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.03	0.00
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.04**	**0.03**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.03	0.00
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.04**	**0.03**	**0.00**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD10. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Hoteling - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
Containership < 3,000 TEU	0.01	0.03	0.34	0.22	0.03
Subtotal	**0.03**	**0.07**	**0.92**	**0.59**	**0.08**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.04**	**0.58**	**0.37**	**0.05**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
Containerships < 3,000 TEU	0.01	0.03	0.34	0.22	0.03
Subtotal	**0.05**	**0.13**	**1.64**	**1.05**	**0.13**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
Containerships < 3,000 TEU	0.01	0.03	0.34	0.22	0.03
Subtotal	**0.05**	**0.13**	**1.64**	**1.05**	**0.13**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Table D1.2.Alt1-2010-PD11. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

(2) Assumes VSRP compliance for all project years.

Table D1.2.Alt1-2010-PD12. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.02	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD13. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.01	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD14. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD15. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Hoteling - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containership < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
Subtotal	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
Project Year 2007					
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.02**	**0.05**	**0.20**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
Subtotal	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
Subtotal	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**

Table D1.2.Alt1-2010-PD16. Peak Daily Tugboat Emissions for Cargo Vessel Assists - Berths 136-147 Terminal Project - Alt 1.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Subtotal	**0.00**	**0.01**	**0.07**	**0.00**	**0.00**
Project Year 2007					
Subtotal	**0.00**	**0.01**	**0.07**	**0.00**	**0.00**
Project Year 2010					
Subtotal	**0.00**	**0.01**	**0.06**	**0.00**	**0.00**
Project Year 2025					
Subtotal	**0.00**	**0.01**	**0.04**	**0.00**	**0.00**
Project Year 2038					
Subtotal	**0.00**	**0.01**	**0.04**	**0.00**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD17. Peak Daily Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - Berths 136-147 Terminal Project - Alt 1.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2007					
Subtotal (1)	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2010					
Subtotal (1)	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2025					
Subtotal (1)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2038					
Subtotal (1)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt1-2010-PD18. Peak Daily Vessel Emissions - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Emission Source	*Pounds Per Day*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Ships - Fairway Transit (1)	68	160	2,076	1,230	174
Ships - Precautionary Area Transit (1)	13	31	350	231	30
Ships - Harbor Transit (1)	22	28	205	110	21
Ships - Docking (1)	8	8	57	27	6
Ships - Hoteling Aux. Sources	57	208	2,019	1,975	173
Tugboats - Cargo Vessel Assist (1)	5	24	156	10	6
Subtotal	**171**	**458**	**4,863**	**3,583**	**410**
Project Year 2007					
Ships - Fairway Transit (1)	68	160	2,076	1,230	174
Ships - Precautionary Area Transit (1)	13	31	350	231	30
Ships - Harbor Transit (1)	22	28	205	110	21
Ships - Docking (1)	8	8	57	27	6
Ships - Hoteling Aux. Sources	6	68	182	798	22
Tugboats - Cargo Vessel Assist (1)	5	24	147	0	6
Subtotal	**120**	**318**	**3,017**	**2,397**	**259**
Project Year 2010					
Ships - Fairway Transit (1)	117	265	3,260	1,913	276
Ships - Precautionary Area Transit (1)	28	57	527	312	47
Ships - Harbor Transit (1)	41	52	392	191	40
Ships - Docking (1)	14	14	109	46	12
Ships - Hoteling Aux. Sources	35	122	1,246	1,139	106
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6
Subtotal	**241**	**534**	**5,674**	**3,601**	**486**
Project Year 2025					
Ships - Fairway Transit (1)	175	374	4,309	2,489	371
Ships - Precautionary Area Transit (1)	43	78	678	381	62
Ships - Harbor Transit (1)	61	77	599	286	60
Ships - Docking (1)	21	21	166	69	18
Ships - Hoteling Aux. Sources	100	353	3,562	3,304	303
Tugboats - Cargo Vessel Assist (1)	4	24	94	0	4
Subtotal	**404**	**926**	**9,409**	**6,529**	**817**
Project Year 2038					
Ships - Fairway Transit (1)	175	374	4,309	2,489	371
Ships - Precautionary Area Transit (1)	43	78	678	381	62
Ships - Harbor Transit (1)	61	77	599	286	60
Ships - Docking (1)	21	21	166	69	18
Ships - Hoteling Aux. Sources	100	353	3,562	3,304	303
Tugboats - Cargo Vessel Assist (1)	4	24	94	0	4
Subtotal	**404**	**926**	**9,409**	**6,529**	**817**

Note: (1) Includes auxiliary power emissions.

Table D1.2.Alt1-2010-PD19. ADT Estimates - Berths 136-147 Alt 1

Alternative/Project Year	*Truck Trips*		
	Annual	*ADT*	*Peak Daily (1)*
2003 - Baseline	1,197,589	3,281	4,492
2007	1,513,063	4,145	5,675
2010	1,659,489	4,547	6,225
2025	1,961,395	5,374	7,357
2038	1,961,395	5,374	7,357

(1) = Peak Daily trips/ 266.6 days.

Table D1.2.Alt1-2010-PD20. On-Road Truck Operational Data for the Berths 136-147 Terminal Project - Alt 1

Activity/Project Scenario	*Idling Time/ Trip (Hrs) (1)*	*Miles/ Trip (2)*	*Peak Daily Trips*	*Idling Hrs/ Day*	*Miles/ Day*	*TEUs/ Day*
On-Terminal						
Year 2003 - Baseline	0.56	1.02	4,492	2,516	4,587	8,310
Year 2007	0.25	1.02	5,675	1,419	5,796	10,499
Year 2010	0.25	1.02	6,225	1,556	6,357	11,516
Year 2025	0.25	1.02	7,357	1,839	7,513	13,611
Year 2030	0.25	1.02	7,357	1,839	7,513	13,611
Off-Terminal						
Year 2003 - Baseline	0.30	32.3	4,492	1,348	145,162	
Year 2007	0.30	32.3	5,675	1,703	183,401	
Year 2010	0.30	32.3	6,225	1,867	201,149	
Year 2025	0.30	32.3	7,357	2,207	237,744	
Year 2030	0.30	32.3	7,357	2,207	237,744	

Notes: (1) 2003 on-terminal durations from PEI. Post-2003 on-terminal durations from TraPac (TraPac 2006).

(2) On-terminal mileage/trip based upon current/proposed terminal gate systems. Off-terminal miles/trip from data presented in Table D1.2.34.

Table D1.2.Alt1-2010-PD21. Peak Daily Truck Emissions for the Berths 136-147 Terminal Project - Alt 1

	Pounds per Peak Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal (1)						
Year 2003 - Idling	97.4	227.7	535.4	3.2	15.8	14.5
Year 2003 - Driving	106.2	241.0	385.6	2.7	39.3	36.2
Subtotal - Year 2003	203.5	468.7	921.0	5.9	55.1	50.7
Year 2007 - Idling	43.7	158.9	331.6	0.2	7.0	6.4
Year 2007 - Driving	131.0	274.4	495.1	0.4	39.8	36.6
Subtotal - Year 2007	174.7	433.3	826.7	0.6	46.8	43.0
Year 2010 - Idling	39.1	162.3	387.8	0.2	5.8	5.3
Year 2010 - Driving	129.0	265.1	508.3	0.4	35.7	32.8
Subtotal - Year 2010	168.1	427.5	896.1	0.6	41.5	38.1
Year 2025 - Idling	31.4	168.7	499.8	0.3	0.9	0.8
Year 2025 - Driving	33.3	72.2	148.0	0.5	2.8	2.6
Subtotal - Year 2025	64.8	240.9	647.8	0.8	3.7	3.4
Year 2038 - Idling	31.0	168.0	500.9	0.3	0.5	0.4
Year 2038 - Driving	26.1	57.1	113.6	0.5	1.7	1.6
Subtotal - Year 2038	57.2	225.1	614.6	0.8	2.2	2.0
Off-Terminal						
Year 2003 - Idling	52.2	122.0	286.8	1.7	8.5	7.8
Year 2003 - Driving	876.4	3,480.5	7,918.2	53.1	524.1	482.1
Subtotal - Year 2003	928.6	3,602.4	8,205.0	54.8	532.5	489.9
Year 2007 - Idling	52.4	190.7	397.9	0.2	8.4	7.7
Year 2007 - Driving	1,026.6	3,634.7	10,121.9	7.8	462.9	425.9
Subtotal - Year 2007	1,079.1	3,825.4	10,519.8	8.1	471.3	433.6
Year 2010 - Idling	46.9	194.8	465.4	0.3	6.9	6.4
Year 2010 - Driving	1,035.0	3,650.9	10,157.4	8.8	440.7	405.5
Subtotal - Year 2010	1,082.0	3,845.7	10,622.8	9.0	447.6	411.8
Year 2025 - Idling	37.7	202.4	599.8	0.3	1.1	1.0
Year 2025 - Driving	192.9	1,020.0	2,679.1	10.6	74.5	68.5
Subtotal - Year 2025	230.6	1,222.4	3,279.0	10.9	75.6	69.5
Year 2038 - Idling	37.3	201.6	601.1	0.3	0.5	0.5
Year 2038 - Driving	245.3	805.3	2,047.3	10.6	51.8	47.7
Subtotal - Year 2038	282.6	1,006.9	2,648.5	10.9	52.3	48.2
Total Daily Truck Emissions by Project Year						
Year 2003	1,132	4,071	9,126	61	588	541
Year 2007	1,254	4,259	11,347	9	518	477
Year 2010	1,250	4,273	11,519	10	489	450
Year 2025	295	1,463	3,927	12	79	73
Year 2038	340	1,232	3,263	12	55	50

Notes: (1) On-terminal driving emissions calculated with 10 mph emission factors.

Table D1.2.Alt1-2010-PD22. Road Dust Emissions for the Berths 136-147 Terminal Project - Alt 1.

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.32	13.91
Year 2007	104.01	17.58
Year 2010	114.07	19.28
Year 2025	134.82	22.79
Year 2038	134.82	22.79
Off-Terminal		
Year 2003 - Baseline	114.80	19.40
Year 2007	145.05	24.51
Year 2010	159.08	26.89
Year 2025	188.03	31.78
Year 2038	188.03	31.78
Combined On/Off-Terminal		
Year 2003 - Baseline	197.13	33.31
Year 2007	249.05	42.09
Year 2010	273.16	46.16
Year 2025	322.85	54.56
Year 2038	322.85	54.56

Notes: (1) 47.05 % freeway travel and 52.95% surface street travel

Table D1.2.Alt1-2010-PD23. Brake and Tire Wear Emissions for the Berths 136-147 Terminal Project - Alt 1.

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	0.51	0.22
Year 2007	0.64	0.27
Year 2010	0.70	0.30
Year 2025	0.83	0.36
Year 2038	0.83	0.36
Off-Terminal		
Year 2003 - Baseline	16.00	6.86
Year 2007	20.22	8.67
Year 2010	22.17	9.51
Year 2025	26.21	11.24
Year 2038	26.21	11.24
Combined On/Off-Terminal		
Year 2003 - Baseline	16.51	7.08
Year 2007	20.85	8.95
Year 2010	22.87	9.81
Year 2025	27.03	11.60
Year 2038	27.03	11.60

Table D1.2.Alt1-2010-PD24. Total Non-Combustive Truck Generated PM Emissions for the Berths 136-147 Terminal Project - Alt 1.

Activity	*Daily Emissions (Pounds)*	
	PM10	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.83	14.13
Year 2007	104.65	17.85
Year 2010	114.77	19.58
Year 2025	135.65	23.14
Year 2038	135.65	23.14
Off-Terminal		
Year 2003 - Baseline	130.81	26.27
Year 2007	165.26	33.19
Year 2010	181.26	36.40
Year 2025	214.23	43.02
Year 2038	214.23	43.02
Combined On/Off-Terminal		
Year 2003 - Baseline	214	40
Year 2007	270	51
Year 2010	296	56
Year 2025	350	66
Year 2038	350	66

Table D1.2.Alt1-2010-PD25. Peak Day Train Trips - Berths 136-147 Terminal Project - Alt 1.

Project Scenario/Rail Yard	*Peak Daily Round Trips*	TEUs/ Day
Year 2003 Baseline		
To/from Berths 136-147 ICTF	-	
To/from Carson/LA Rail Yards	2	1,224
Year 2007		
To/from Berths 136-147 ICTF	-	
To/from Carson/LA Rail Yards	2	1,224
Year 2010		
To/from Berths 136-147 ICTF	-	-
To/from Carson/LA Rail Yards	2	1,224
Year 2025		
To/from Berths 136-147 ICTF	-	-
To/from Carson/LA Rail Yards	3	1,836
Year 2038		
To/from Berths 136-147 ICTF	-	-
To/from Carson/LA Rail Yards	3	1,836

Table D1.2.Alt1-2010-PD26. Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project Alt 1 Year 2010.

	Tons				
ICTF/Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Berths 136-147/Outbound					
Hostler	-	-	-	-	-
Top Picks	-	-	-	-	-
Line Haul Locomotive - Road Haul	-	-	-	-	-
Line Haul Locomotive - Notch 1	-	-	-	-	-
Yard Locomotive - Switching	-	-	-	-	-
Subtotal	-	-	-	-	-
Berths 136-147/Inbound					
Hostler	-	-	-	-	-
Top Picks	-	-	-	-	-
Line Haul Locomotive - Road Haul	-	-	-	-	-
Line Haul Locomotive - Notch 1	-	-	-	-	-
Subtotal	-	-	-	-	-
Carson or LA Railyards/Outbound					
Hostler	0.00	0.02	0.04	0.00	0.00
Top Picks	0.00	0.01	0.02	0.00	0.00
Line Haul Locomotive - Road Haul	0.02	0.05	0.27	0.01	0.01
Line Haul Locomotive - Notch 1	0.00	0.00	0.02	0.00	0.00
Yard Locomotive - Switching	0.00	0.00	0.01	0.00	0.00
Subtotal	0.03	0.08	0.35	0.01	0.01
Carson or LA Railyards/Inbound					
Hostler	0.00	0.01	0.01	0.00	0.00
Top Picks	0.00	0.00	0.01	0.00	0.00
Line Haul Locomotive - Road Haul	0.02	0.05	0.27	0.01	0.01
Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00
Subtotal	0.02	0.06	0.30	0.01	0.01
Total Tons Per Year	0.05	0.14	0.65	0.01	0.02

Table D1.2.Alt1-2010-PD27. Summary of Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project Alt 1.

	Tons				
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Baseline Year 2003					
ICTF Equipment	0.01	0.03	0.10	0.00	0.01
Trains	0.05	0.10	0.87	0.06	0.03
Subtotal	0.06	0.14	0.97	0.06	0.03
Project Year 2007					
ICTF Equipment	0.01	0.03	0.10	0.00	0.00
Trains	0.04	0.10	0.62	0.06	0.02
Subtotal	0.05	0.14	0.72	0.06	0.03
Project Year 2010					
ICTF Equipment	0.01	0.03	0.08	0.00	0.00
Trains	0.04	0.10	0.57	0.01	0.02
Subtotal	0.05	0.14	0.65	0.01	0.02

Table D1.2.Alt1-2010-PD28. Peak Day Terminal Yard TEU Throughput - Berths 136-147 Terminal Project Alt 1.

	Peak Daily TEUs				Peak Daily/
Project Year	*Wharf*	*Gate*	*Total*	*Annual TEUs*	*Annual TEUs*
2003	5,984	8,310	14,294	891,976	0.016
2007	6,732	10,499	17,231	1,091,200	0.016
2010	6,732	11,516	18,248	1,196,800	0.015
2025	10,799	13,611	24,410	1,697,000	0.014
2038	10,799	13,611	24,410	1,697,000	0.014

Table D1.2.Alt1-2010-PD29. Terminal Equipment Annual Emissions - Berths 136-147 Terminal Project Alt 1.

Project Scenario/Equipment Horsepower	*Annual Hp-Hrs*	*Annual Emissions (Tons)*					
		ROG	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline - Year 2003							
Terminal Equipment - 121-175 Hp	10,493,875	9.61	39.16	105.82	1.19	6.03	5.55
Terminal Equipment - 176-250 Hp	12,581,479	6.11	18.34	94.22	1.42	3.37	3.10
Terminal Equipment - 250-500 Hp	2,417,350	1.18	3.92	18.61	0.27	0.58	0.53
Subtotal	25,492,704	16.89	61.43	218.65	2.89	9.98	9.18
Project Year 2007							
Terminal Equipment - 121-175 Hp	12,837,231	11.23	49.38	118.97	0.06	5.53	5.09
Terminal Equipment - 176-250 Hp	15,391,012	9.67	27.15	120.01	0.07	4.91	4.52
Terminal Equipment - 250-500 Hp	2,957,161	1.31	4.56	20.15	0.01	0.71	0.66
Subtotal	31,185,404	22.21	81.10	259.13	0.15	11.15	10.26
Project Year 2010							
Terminal Equipment - 121-175 Hp	14,078,336	9.69	52.33	107.92	0.07	5.03	4.63
Terminal Equipment - 176-250 Hp	16,879,017	8.54	27.12	112.51	0.08	4.58	4.22
Terminal Equipment - 250-500 Hp	3,243,060	1.24	4.70	19.02	0.02	0.74	0.68
Subtotal	34,200,412	19.47	84.15	239.45	0.17	10.35	9.52

Table D1.2.Alt1-2010-PD30. Terminal Equipment Peak Daily Emissions - Berths 136-147 Terminal Project Alt 1.

		Tons				
Project Scenario/Equipment Horsepower		*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Project Year 2003						
Terminal Equipment - 121-175 Hp	168,169	0.15	0.63	1.70	0.02	0.10
Terminal Equipment - 176-250 Hp	201,624	0.10	0.29	1.51	0.02	0.05
Terminal Equipment - 250-500 Hp	38,739	0.02	0.06	0.30	0.00	0.01
Subtotal	408,533	0.27	0.98	3.50	0.05	0.16
Project Year 2007						
Terminal Equipment - 121-175 Hp	202,717	0.18	0.78	1.88	0.00	0.09
Terminal Equipment - 176-250 Hp	243,045	0.15	0.43	1.90	0.00	0.08
Terminal Equipment - 250-500 Hp	46,698	0.02	0.07	0.32	0.00	0.01
Subtotal	492,459	0.35	1.28	4.09	0.00	0.18
Project Year 2010						
Terminal Equipment - 121-175 Hp	214,652	0.15	0.80	1.65	0.00	0.08
Terminal Equipment - 176-250 Hp	257,354	0.13	0.41	1.72	0.00	0.07
Terminal Equipment - 250-500 Hp	49,447	0.02	0.07	0.29	0.00	0.01
Subtotal	521,453	0.30	1.28	3.65	0.00	0.16

Table D1.2Alt1-2010-PD31. On-Road Truck Trip Vehicle Miles Travelled - Berths 136-147 Terminal Project - Alternative 1.

Year	*B136-149 Throughput (TEUs)*	*B136-149 ICTF Thruput (TEUs) (1)*	*TEUs to Offsite Railyard (2)*	*TEUs to Local Deilveries*	*Truck Trips to Offsite Railyard (2)*	*Local Truck Trips (3)*	*Truck Miles to Offsite Railyard (4)*	*Local Truck Trip Miles (5)*	*Composite VMT/ Truck Trip*
Baseline - Year 2003	891,976	-	445,988	445,988	598,795	598,795	9.6	55.0	32.3
Year 2007	1,091,200	-	545,600	545,600	756,532	756,532	9.6	55.0	32.3
Year 2010	1,196,800	-	598,400	598,400	829,745	829,745	9.6	55.0	32.3
Year 2015	1,697,000	-	848,500	848,500	980,698	980,698	9.6	55.0	32.3
Year 2030	1,697,000	-	848,500	848,500	980,698	980,698	9.6	55.0	32.3

(1) Peak Daily throughput estimates from Rail Master Plan.

(2) Based on 50/50/26.8/6.7/7.3% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(3) Based on 50/50/61.4/62.1/63.4% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(4) Assumes an even split to Carson ICTF (4.5 miles) and LA railyards (18 miles) = 11.3 miles/trip

(5) Average local trip length with origin/destination at the POLA.

Table D1.2.Alt1-2010-PD32. Peak Daily Operational Emissions - Berths 136-147 Terminal Project Alt 1.

	Pounds per Peak Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	57	208	2,019	1,975	173	162
Tugboats - Cargo Vessel Assist (1)	5	24	156	10	6	6
Terminal Equipment	542	1,969	7,008	92	320	294
On-road Trucks	1,132	4,071	9,126	61	801	581
Trains	100	208	1,737	111	52	48
Railyard Equipment	17	63	202	3	10	9
Commuting	12	160	20	0	12	11
Pier A Railyard	4	6	55	1	1	1
Year 2003 Total	1,977	6,935	23,010	3,851	1,607	1,329
Project Year 2007						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	6	68	182	798	22	21
Tugboats - Cargo Vessel Assist (1)	5	24	147	0	6	6
Terminal Equipment	702	2,561	8,184	5	352	324
On-road Trucks	1,254	4,259	11,347	9	788	528
Trains	89	208	1,245	111	47	43
Railyard Equipment	17	67	193	0	9	8
Commuting	10	137	18	0	15	14
Pier A Railyard	4	7	54	1	1	1
Project Year 2007 Total	2,196	7,559	24,058	2,522	1,471	1,161
Net Change from Existing Conditions	219	624	1,047	(1,329)	(135)	(168)
Net Change from NFAB Year 2007	2,196	7,559	24,058	2,522	1,471	1,161
Project Year 2010						
Ships - Fairway Transit (1)	117	265	3,260	1,913	276	258
Ships - Precautionary Area Transit (1)	28	57	527	312	47	44
Ships - Harbor Transit (1)	41	52	392	191	40	37
Ships - Docking (1)	14	14	109	46	12	11
Ships - Hoteling Aux. Sources	35	122	1,246	1,139	106	99
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6	5
Terminal Equipment	594	2,566	7,302	5	316	290
On-road Trucks	1,250	4,273	11,519	10	785	506
Trains	82	209	1,137	25	32	29
Railyard Equipment	14	64	162	0	7	7
Commuting	10	135	17	0	19	17
Pier A Railyard	2	9	30	0	1	1
Project Year 2010 Total	2,193	7,790	25,841	3,641	1,645	1,305
Net Change from Existing Conditions	215	855	2,831	(209)	38	(24)
Net Change from NFAB Year 2010	855	2,663	8,790	595	519	493

	A	B	C	D	E	F	G
1	**Table D1.2.Alt3-2010-PD1. Peak Daily Ship Visit and Throughput Data - Berths 136-147 Terminal Project - Alt 3.**						
2		*Peak Daily*	*Max TEU Moves/*	*Peak Daily*	*Hoteling Hours/*		
3	*Project Scenario/Ship Type*	*Ship Visits*	*Peak Day (1)*	*TEU Moves*	*Day (2)*		
4	**Baseline - Year 2003**						
5	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0		
6	Containerships < 3,000 TEU	1	2,992	2,992	24.0		
7	**Subtotal**	**2**		**5,984**			
8	**Project Year 2007**						
9	Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0		
10	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0		
11	Containerships < 3,000 TEU		2,992				
12	**Subtotal**	**2**		**6,732**			
13	**Project Year 2010**						
14	Containerships 8,000 - 9,000 TEU						
15	Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0		
16	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0		
17	Containerships < 3,000 TEU						
18	**Subtotal**	**2**		**6,732**			
19	**Project Year 2025**						
20	Containerships 8,000 - 9,000 TEU						
21	Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0		
22	Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0		
23	Containerships < 3,000 TEU	1	3,927	2,945	24.0		
24	**Subtotal**	**3**		**11,781**			
25	**Project Year 2038**						
26	Containerships 8,000 - 9,000 TEU		5,890				
27	Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0		
28	Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0		
29	Containerships < 3,000 TEU	1	3,927	2,945	24.0		
30	**Subtotal**	**3**		**11,781**			
31	Notes: (1) Assumes that 4 cranes would service <3,000 and 3-5,000 TEU vessels @ 1600 lifts/day = 2992 TEUs/day,						
32	5 cranes would service 5-6,000 TEU vessels @ 2000 lifts/day = 3740 TEUs/day, and 6 cranes would service						
33	8-9,000 TEU vessels @ 2400 lifts/day = 4488 TEUs/day (TraPac 2006) during 16 hours of service.						
34	Beginning in year 2015, crane service time increases to 21 hours/day and 4-, 5-, and 6- crane production =						
35	3,927, 4,909, and 5,890 TEUs/day.						
36	(2) There are 10 cranes present from 2007 through 2011, then 12 cranes beginning in 2012.						

	AO	AP	AQ	AR	AS	AT
1	**Table D1.2.Alt3-2010-PD2. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone -**					
2	**Berths 136-147 Terminal Project - Alt 3.**					
3		*Tons Per Year (1)(2)*				
4	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
5	*Year 2003 Baseline*					
6	Containership 3,000 - 5,000 TEU					
7	Containership < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
8	**Subtotal**	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
9	*Project Year 2007*					
10	Containerships 5,000 - 6,000 TEU					
11	Containerships 3,000 - 5,000 TEU					
12	Containerships < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
13	**Subtotal**	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
14	*Project Year 2010*					
15	Containerships 8,000 - 9,000 TEU					
16	Containerships 5,000 - 6,000 TEU					
17	Containerships 3,000 - 5,000 TEU	0.06	0.13	1.54	0.88	0.13
18	Containerships < 3,000 TEU					
19	**Subtotal**	**0.06**	**0.13**	**1.54**	**0.88**	**0.13**
20	*Project Year 2025*					
21	Containerships 8,000 - 9,000 TEU					
22	Containerships 5,000 - 6,000 TEU	0.08	0.18	2.02	1.13	0.17
23	Containerships 3,000 - 5,000 TEU					
24	Containerships < 3,000 TEU					
25	**Subtotal**	**0.08**	**0.18**	**2.02**	**1.13**	**0.17**
26	*Project Year 2038*					
27	Containerships 8,000 - 9,000 TEU					
28	Containerships 5,000 - 6,000 TEU	0.08	0.18	2.02	1.13	0.17
29	Containerships 3,000 - 5,000 TEU					
30	Containerships < 3,000 TEU					
31	**Subtotal**	**0.08**	**0.18**	**2.02**	**1.13**	**0.17**
32	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					
33	(2) Assumes VSRP compliance for all project years.					

	AO	AP	AQ	AR	AS	AT
35	**Table D1.2.Alt3-2010-PD3. Peak Daily Cargo Vessel Emissions within the POLA Precautionary**					
36	**Area - Berths 136-147 Terminal Project - Alt 3.**					
37		*Tons Per Year*				
38	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
39	*Year 2003 Baseline*					
40	Containership 3,000 - 5,000 TEU					
41	Containership < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
42	**Subtotal**	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
43	*Project Year 2007*					
44	Containerships 5,000 - 6,000 TEU					
45	Containerships 3,000 - 5,000 TEU					
46	Containerships < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
47	**Subtotal**	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
48	*Project Year 2010*					
49	Containerships 8,000 - 9,000 TEU					
50	Containerships 5,000 - 6,000 TEU					
51	Containerships 3,000 - 5,000 TEU	0.01	0.02	0.20	0.10	0.02
52	Containerships < 3,000 TEU					
53	**Subtotal**	**0.01**	**0.02**	**0.20**	**0.10**	**0.02**
54	*Project Year 2025*					
55	Containerships 8,000 - 9,000 TEU					
56	Containerships 5,000 - 6,000 TEU	0.02	0.03	0.24	0.12	0.02
57	Containerships 3,000 - 5,000 TEU					
58	Containerships < 3,000 TEU					
59	**Subtotal**	**0.02**	**0.03**	**0.24**	**0.12**	**0.02**
60	*Project Year 2038*					
61	Containerships 8,000 - 9,000 TEU					
62	Containerships 5,000 - 6,000 TEU	0.02	0.03	0.24	0.12	0.02
63	Containerships 3,000 - 5,000 TEU					
64	Containerships < 3,000 TEU					
65	**Subtotal**	**0.02**	**0.03**	**0.24**	**0.12**	**0.02**
66	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
68	**Table D1.2.Alt3-2010-PD4. Peak Daily Cargo Vessel Emissions for Transit within the POLA**					
69	**Breakwater - Berths 136-147 Terminal Project - Alt 3.**					
70		*Tons Per Year*				
71	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
72	*Year 2003 Baseline*					
73	Containership 3,000 - 5,000 TEU					
74	Containership < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
75	**Subtotal**	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
76	*Project Year 2007*					
77	Containerships 5,000 - 6,000 TEU					
78	Containerships 3,000 - 5,000 TEU					
79	Containerships < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
80	**Subtotal**	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
81	*Project Year 2010*					
82	Containerships 8,000 - 9,000 TEU					
83	Containerships 5,000 - 6,000 TEU					
84	Containerships 3,000 - 5,000 TEU	0.02	0.02	0.10	0.02	0.01
85	Containerships < 3,000 TEU					
86	**Subtotal**	**0.02**	**0.02**	**0.10**	**0.02**	**0.01**
87	*Project Year 2025*					
88	Containerships 8,000 - 9,000 TEU					
89	Containerships 5,000 - 6,000 TEU	0.03	0.03	0.15	0.04	0.02
90	Containerships 3,000 - 5,000 TEU					
91	Containerships < 3,000 TEU					
92	**Subtotal**	**0.03**	**0.03**	**0.15**	**0.04**	**0.02**
93	*Project Year 2038*					
94	Containerships 8,000 - 9,000 TEU					
95	Containerships 5,000 - 6,000 TEU	0.03	0.03	0.15	0.04	0.02
96	Containerships 3,000 - 5,000 TEU					
97	Containerships < 3,000 TEU					
98	**Subtotal**	**0.03**	**0.03**	**0.15**	**0.04**	**0.02**
99	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
101	**Table D1.2.Alt3-2010-PD5. Peak Daily Cargo Vessel Emissions for Docking Activities -**					
102	**Berths 136-147 Terminal Project - Alt 3.**					
103		*Tons Per Year*				
104	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
105	*Year 2003 Baseline*					
106	Containership 3,000 - 5,000 TEU					
107	Containership < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
108	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
109	*Project Year 2007*					
110	Containerships 5,000 - 6,000 TEU					
111	Containerships 3,000 - 5,000 TEU					
112	Containerships < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
113	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
114	*Project Year 2010*					
115	Containerships 8,000 - 9,000 TEU					
116	Containerships 5,000 - 6,000 TEU					
117	Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00
118	Containerships < 3,000 TEU					
119	**Subtotal**	**0.01**	**0.00**	**0.03**	**0.00**	**0.00**
120	*Project Year 2025*					
121	Containerships 8,000 - 9,000 TEU					
122	Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.01	0.01
123	Containerships 3,000 - 5,000 TEU					
124	Containerships < 3,000 TEU					
125	**Subtotal**	**0.01**	**0.01**	**0.04**	**0.01**	**0.01**
126	*Project Year 2038*					
127	Containerships 8,000 - 9,000 TEU					
128	Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.01	0.01
129	Containerships 3,000 - 5,000 TEU					
130	Containerships < 3,000 TEU					
131	**Subtotal**	**0.01**	**0.01**	**0.04**	**0.01**	**0.01**
132	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
144	**Table D1.2.Alt3-2010-PD6. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting**					
145	**the Fairway Zone - Berths 136-147 Terminal Project - Alt 3.**					
146		*Tons Per Year (1)*				
147	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
148	*Year 2003 Baseline*					
149	Containership 3,000 - 5,000 TEU					
150	Containership < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
151	**Subtotal**	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
152	*Project Year 2007*					
153	Containerships 5,000 - 6,000 TEU					
154	Containerships 3,000 - 5,000 TEU					
155	Containerships < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
156	**Subtotal**	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
157	*Project Year 2010*					
158	Containerships 8,000 - 9,000 TEU					
159	Containerships 5,000 - 6,000 TEU					
160	Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.08	0.01
161	Containerships < 3,000 TEU					
162	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.08**	**0.01**
163	*Project Year 2025*					
164	Containerships 8,000 - 9,000 TEU					
165	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.11	0.01
166	Containerships 3,000 - 5,000 TEU					
167	Containerships < 3,000 TEU					
168	**Subtotal**	**0.00**	**0.01**	**0.14**	**0.11**	**0.01**
169	*Project Year 2038*					
170	Containerships 8,000 - 9,000 TEU					
171	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.11	0.01
172	Containerships 3,000 - 5,000 TEU					
173	Containerships < 3,000 TEU					
174	**Subtotal**	**0.00**	**0.01**	**0.14**	**0.11**	**0.01**
175	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					
176	(2) Assumes VSRP compliance for all project years.					

	AO	AP	AQ	AR	AS	AT
178	**Table D1.2.Alt3-2010-PD7. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting**					
179	**the Precautionary Area - Berths 136-147 Terminal Project - Alt 3.**					
180		*Tons Per Year (1)*				
181	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
182	*Year 2003 Baseline*					
183	Containership 3,000 - 5,000 TEU					
184	Containership < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
185	**Subtotal**	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
186	*Project Year 2007*					
187	Containerships 5,000 - 6,000 TEU					
188	Containerships 3,000 - 5,000 TEU					
189	Containerships < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
190	**Subtotal**	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
191	*Project Year 2010*					
192	Containerships 8,000 - 9,000 TEU					
193	Containerships 5,000 - 6,000 TEU					
194	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.06	0.04	0.01
195	Containerships < 3,000 TEU					
196	**Subtotal**	**0.00**	**0.00**	**0.06**	**0.04**	**0.01**
197	*Project Year 2025*					
198	Containerships 8,000 - 9,000 TEU					
199	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.06	0.01
200	Containerships 3,000 - 5,000 TEU					
201	Containerships < 3,000 TEU					
202	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.06**	**0.01**
203	*Project Year 2038*					
204	Containerships 8,000 - 9,000 TEU					
205	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.06	0.01
206	Containerships 3,000 - 5,000 TEU					
207	Containerships < 3,000 TEU					
208	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.06**	**0.01**
209	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					
210	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
212	**Table D1.2.Alt3-2010-PD8. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting**					
213	**within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 3.**					
214		*Tons Per Year (1)*				
215	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
216	*Year 2003 Baseline*					
217	Containership 3,000 - 5,000 TEU					
218	Containership < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
219	**Subtotal**	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
220	*Project Year 2007*					
221	Containerships 5,000 - 6,000 TEU					
222	Containerships 3,000 - 5,000 TEU					
223	Containerships < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
224	**Subtotal**	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
225	*Project Year 2010*					
226	Containerships 8,000 - 9,000 TEU					
227	Containerships 5,000 - 6,000 TEU					
228	Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.06	0.01
229	Containerships < 3,000 TEU					
230	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.06**	**0.01**
231	*Project Year 2025*					
232	Containerships 8,000 - 9,000 TEU					
233	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.15	0.09	0.01
234	Containerships 3,000 - 5,000 TEU					
235	Containerships < 3,000 TEU					
236	**Subtotal**	**0.00**	**0.01**	**0.15**	**0.09**	**0.01**
237	*Project Year 2038*					
238	Containerships 8,000 - 9,000 TEU					
239	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.15	0.09	0.01
240	Containerships 3,000 - 5,000 TEU					
241	Containerships < 3,000 TEU					
242	**Subtotal**	**0.00**	**0.01**	**0.15**	**0.09**	**0.01**
243	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					
244	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
246	**Table D1.2.Alt3-2010-PD9. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Docking within**					
247	**the POLA Breakwater - Berths 136-147 Terminal Project - Alt 3.**					
248		*Tons Per Year (1)*				
249	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
250	*Year 2003 Baseline*					
251	Containership 3,000 - 5,000 TEU					
252	Containership < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
253	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
254	*Project Year 2007*					
255	Containerships 5,000 - 6,000 TEU					
256	Containerships 3,000 - 5,000 TEU					
257	Containerships < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
258	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
259	*Project Year 2010*					
260	Containerships 8,000 - 9,000 TEU					
261	Containerships 5,000 - 6,000 TEU					
262	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.03	0.02	0.00
263	Containerships < 3,000 TEU					
264	**Subtotal**	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
265	*Project Year 2025*					
266	Containerships 8,000 - 9,000 TEU					
267	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.03	0.00
268	Containerships 3,000 - 5,000 TEU					
269	Containerships < 3,000 TEU					
270	**Subtotal**	**0.00**	**0.00**	**0.04**	**0.03**	**0.00**
271	*Project Year 2038*					
272	Containerships 8,000 - 9,000 TEU					
273	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.03	0.00
274	Containerships 3,000 - 5,000 TEU					
275	Containerships < 3,000 TEU					
276	**Subtotal**	**0.00**	**0.00**	**0.04**	**0.03**	**0.00**
277	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					
278	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
280	**Table D1.2.Alt3-2010-PD10. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Hoteling -**					
281	**Berths 136-147 Terminal Project - Alt 3.**					
282		*Tons Per Year*				
283	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
284	*Year 2003 Baseline*					
285	Containership 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
286	Containership < 3,000 TEU	0.01	0.03	0.34	0.22	0.03
287	**Subtotal**	**0.03**	**0.07**	**0.92**	**0.59**	**0.08**
288	*Project Year 2007*					
289	Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
290	Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
291	Containerships < 3,000 TEU	-	-	-	-	-
292	**Subtotal**	**0.04**	**0.10**	**1.30**	**0.83**	**0.11**
293	*Project Year 2010*					
294	Containerships 8,000 - 9,000 TEU					
295	Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
296	Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
297	Containerships < 3,000 TEU					
298	**Subtotal**	**0.04**	**0.10**	**1.30**	**0.83**	**0.11**
299	*Project Year 2025*					
300	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
301	Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
302	Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
303	Containerships < 3,000 TEU	0.01	0.03	0.34	0.22	0.03
304	**Subtotal**	**0.05**	**0.13**	**1.64**	**1.05**	**0.13**
305	*Project Year 2038*					
306	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
307	Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
308	Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
309	Containerships < 3,000 TEU	0.01	0.03	0.34	0.22	0.03
310	**Subtotal**	**0.05**	**0.13**	**1.64**	**1.05**	**0.13**
311	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					

	AO	AP	AQ	AR	AS	AT
333	**Table D1.2.Alt3-2010-PD11. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting**					
334	**the Fairway Zone - Berths 136-147 Terminal Project - Alt 3.**					
335		*Tons Per Year*				
336	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
337	*Year 2003 Baseline*					
338	Containership 3,000 - 5,000 TEU					
339	Containership < 3,000 TEU	-	-	-	-	-
340	**Subtotal**	-	-	-	-	-
341	*Project Year 2007*					
342	Containerships 5,000 - 6,000 TEU					
343	Containerships 3,000 - 5,000 TEU					
344	Containerships < 3,000 TEU	-	-	-	-	-
345	**Subtotal**	-	-	-	-	-
346	*Project Year 2010*					
347	Containerships 8,000 - 9,000 TEU					
348	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
349	Containerships 3,000 - 5,000 TEU					
350	Containerships < 3,000 TEU					
351	**Subtotal**	-	-	-	-	-
352	*Project Year 2025*					
353	Containerships 8,000 - 9,000 TEU					
354	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
355	Containerships 3,000 - 5,000 TEU					
356	Containerships < 3,000 TEU					
357	**Subtotal**	-	-	-	-	-
358	*Project Year 2038*					
359	Containerships 8,000 - 9,000 TEU					
360	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
361	Containerships 3,000 - 5,000 TEU					
362	Containerships < 3,000 TEU					
363	**Subtotal**	-	-	-	-	-
364	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					
365	(2) Assumes VSRP compliance for all project years.					

	AO	AP	AQ	AR	AS	AT
367	**Table D1.2.Alt3-2010-PD12. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting**					
368	**the Precautionary Area - Berths 136-147 Terminal Project - Alt 3.**					
369		*Tons Per Year*				
370	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
371	*Year 2003 Baseline*					
372	Containership 3,000 - 5,000 TEU					
373	Containership < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
374	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
375	*Project Year 2007*					
376	Containerships 5,000 - 6,000 TEU					
377	Containerships 3,000 - 5,000 TEU					
378	Containerships < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
379	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
380	*Project Year 2010*					
381	Containerships 8,000 - 9,000 TEU					
382	Containerships 5,000 - 6,000 TEU					
383	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.02	0.00
384	Containerships < 3,000 TEU					
385	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
386	*Project Year 2025*					
387	Containerships 8,000 - 9,000 TEU					
388	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
389	Containerships 3,000 - 5,000 TEU					
390	Containerships < 3,000 TEU					
391	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
392	*Project Year 2038*					
393	Containerships 8,000 - 9,000 TEU					
394	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
395	Containerships 3,000 - 5,000 TEU					
396	Containerships < 3,000 TEU					
397	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
398	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
400	**Table D1.2.Alt3-2010-PD13. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting within**					
401	**the POLA Breakwater - Berths 136-147 Terminal Project - Alt 3.**					
402		*Tons Per Year*				
403	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
404	*Year 2003 Baseline*					
405	Containership 3,000 - 5,000 TEU					
406	Containership < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
407	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
408	*Project Year 2007*					
409	Containerships 5,000 - 6,000 TEU					
410	Containerships 3,000 - 5,000 TEU					
411	Containerships < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
412	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
413	*Project Year 2010*					
414	Containerships 8,000 - 9,000 TEU					
415	Containerships 5,000 - 6,000 TEU					
416	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.01	0.00
417	Containerships < 3,000 TEU					
418	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
419	*Project Year 2025*					
420	Containerships 8,000 - 9,000 TEU					
421	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
422	Containerships 3,000 - 5,000 TEU					
423	Containerships < 3,000 TEU					
424	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
425	*Project Year 2038*					
426	Containerships 8,000 - 9,000 TEU					
427	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
428	Containerships 3,000 - 5,000 TEU					
429	Containerships < 3,000 TEU					
430	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
431	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
433	**Table D1.2.Alt3-2010-PD14. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Docking within the**					
434	**POLA Breakwater - Berths 136-147 Terminal Project - Alt 3.**					
435		*Tons Per Year*				
436	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
437	*Year 2003 Baseline*					
438	Containership 3,000 - 5,000 TEU					
439	Containership < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
440	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
441	*Project Year 2007*					
442	Containerships 5,000 - 6,000 TEU					
443	Containerships 3,000 - 5,000 TEU					
444	Containerships < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
445	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
446	*Project Year 2010*					
447	Containerships 8,000 - 9,000 TEU					
448	Containerships 5,000 - 6,000 TEU					
449	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.00	0.00
450	Containerships < 3,000 TEU					
451	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
452	*Project Year 2025*					
453	Containerships 8,000 - 9,000 TEU					
454	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
455	Containerships 3,000 - 5,000 TEU					
456	Containerships < 3,000 TEU					
457	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
458	*Project Year 2038*					
459	Containerships 8,000 - 9,000 TEU					
460	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
461	Containerships 3,000 - 5,000 TEU					
462	Containerships < 3,000 TEU					
463	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
464	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AO	AP	AQ	AR	AS	AT
467	**Table D1.2.Alt3-2010-PD15. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Hoteling -**					
468	**Berths 136-147 Terminal Project - Alt 3.**					
469		*Tons Per Year*				
470	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
471	*Year 2003 Baseline*					
472	Containership 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
473	Containership < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
474	**Subtotal**	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
475	*Project Year 2007*					
476	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
477	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
478	Containerships < 3,000 TEU	-	-	-	-	-
479	**Subtotal**	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
480	*Project Year 2010*					
481	Containerships 8,000 - 9,000 TEU					
482	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
483	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
484	Containerships < 3,000 TEU					
485	**Subtotal**	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
486	*Project Year 2025*					
487	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
488	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
489	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
490	Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
491	**Subtotal**	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**
492	*Project Year 2038*					
493	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
494	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
495	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
496	Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
497	**Subtotal**	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**

	AO	AP	AQ	AR	AS	AT
511	**Table D1.2.Alt3-2010-PD16. Peak Daily Tugboat Emissions for Cargo Vessel Assists -**					
512	**Berths 136-147 Terminal Project - Alt 3.**					
513		*Tons Per Year (1)*				
514	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
515	*Year 2003 Baseline*					
516	**Subtotal**	**0.00**	**0.01**	**0.07**	**0.00**	**0.00**
517	*Project Year 2007*					
518	**Subtotal**	**0.00**	**0.01**	**0.07**	**0.00**	**0.00**
519	*Project Year 2010*					
520	**Subtotal**	**0.00**	**0.01**	**0.06**	**0.00**	**0.00**
521	*Project Year 2010*					
522	**Subtotal**	**0.00**	**0.01**	**0.04**	**0.00**	**0.00**
523	*Project Year 2038*					
524	**Subtotal**	**0.00**	**0.01**	**0.04**	**0.00**	**0.00**
525	Note: (1) Assumes 3 tug assists per ship visit for all project years.					
526	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					
527						
528	**Table D1.2.Alt3-2010-PD17. Peak Daily Auxiliary Generator Emissions for Tugboats during Cargo**					
529	**Vessel Assists - Berths 136-147 Terminal Project - Alt 3.**					
530		*Tons Per Year*				
531	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
532	*Year 2003 Baseline*					
533	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
534	*Project Year 2007*					
535	**Subtotal (1)**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
536	*Project Year 2010*					
537	**Subtotal (1)**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
538	*Project Year 2010*					
539	**Subtotal (1)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
540	*Project Year 2038*					
541	**Subtotal (1)**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
542	Note: (1) Assumes 3 tug assists per ship visit for all project years.					
543	Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.					

	AV	AW	AX	AY	AZ	BA
1	**Table D1.2.Alt3-2010-PD18. Peak Daily Vessel Emissions - Berths 136-147 Terminal Project - Alt 3.**					
2		*Pounds Per Day*				
3	*Project Scenario/Emission Source*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
4	*Year 2003 Baseline*					
5	Ships - Fairway Transit (1)	68	160	2,076	1,230	174
6	Ships - Precautionary Area Transit (1)	13	31	350	231	30
7	Ships - Harbor Transit (1)	22	28	205	110	21
8	Ships - Docking (1)	8	8	57	27	6
9	Ships - Hoteling Aux. Sources	57	208	2,019	1,975	173
10	Tugboats - Cargo Vessel Assist (1)	5	24	156	10	6
11	**Subtotal**	**171**	**458**	**4,863**	**3,583**	**410**
12	*Project Year 2007*					
13	Ships - Fairway Transit (1)	68	160	2,076	1,230	174
14	Ships - Precautionary Area Transit (1)	13	31	350	231	30
15	Ships - Harbor Transit (1)	22	28	205	110	21
16	Ships - Docking (1)	8	8	57	27	6
17	Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236
18	Tugboats - Cargo Vessel Assist (1)	5	24	147	0	6
19	**Subtotal**	**192**	**517**	**5,624**	**4,066**	**473**
20	*Project Year 2010*					
21	Ships - Fairway Transit (1)	117	265	3,260	1,913	276
22	Ships - Precautionary Area Transit (1)	28	57	527	312	47
23	Ships - Harbor Transit (1)	41	52	392	191	40
24	Ships - Docking (1)	14	14	109	46	12
25	Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236
26	Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6
27	**Subtotal**	**284**	**678**	**7,217**	**4,930**	**616**

Table D1.2.Alt3-2010-PD19. ADT Estimates - Berths 136-147 Alt 3

Alternative/Project Year	*Truck Trips*		
	Peak Daily	*ADT*	*Peak Daily (1)*
2003 - Baseline	1,197,589	3,281	4,492
2007	1,488,659	4,079	5,584
2010	1,634,139	4,477	6,130
2025	1,456,293	3,990	5,462
2038	1,456,293	3,990	5,462

(1) = Peak Daily trips/ 266.6 days.

Table D1.2.Alt3-2010-PD20. On-Road Truck Operational Data for the Berths 136-147 Terminal Project - Alt 3

Activity/Project Scenario	*Idling Time/ Trip (Hrs) (1)*	*Miles/ Trip (2)*	*ADT*	*Idling Hrs/ Day*	*Miles/ Day*	*TEUs/ Day*
On-Terminal						
Year 2003 - Baseline	0.56	1.02	4,492	2,516	4,587	8,310
Year 2007	0.25	1.02	5,584	1,396	5,702	10,330
Year 2010	0.25	0.81	6,130	1,532	4,938	11,340
Year 2025	0.25	0.81	5,462	1,366	4,401	10,106
Year 2038	0.25	0.81	5,462	1,366	4,401	10,106
Off-Terminal						
Year 2003 - Baseline	0.30	32.3	4,492	1,348	145,162	
Year 2007	0.30	32.3	5,584	1,675	180,443	
Year 2010	0.30	40.9	6,130	1,839	250,526	
Year 2025	0.30	48.3	5,462	1,639	263,894	
Year 2030	0.30	49.9	5,462	1,639	272,841	

Notes: (1) 2003 on-terminal durations from PEI. Post-2003 on-terminal durations from TraPac (TraPac 2006).

(2) On-terminal mileage/trip based upon current/proposed terminal gate systems. Off-terminal miles/trip from data presented in Table D1.2.34.

Table D1.2.Alt3-2010-PD21. Peak Daily Truck Emissions for the Berths 136-147 Terminal Project - Alt 3

Location/Project Scenario - Mode	Pounds per Peak Day					
	ROG	CO	NOx	SOx	PM10	PM2.5
On-Terminal (1)						
Year 2003 - Idling	97.4	227.7	535.4	3.2	15.8	14.5
Year 2003 - Driving	106.2	241.0	385.6	2.7	39.3	36.2
Subtotal - Year 2003	203.5	468.7	921.0	5.9	55.1	50.7
Year 2007 - Idling	43.0	156.3	326.2	0.2	6.9	6.3
Year 2007 - Driving	128.9	270.0	487.1	0.4	39.2	36.0
Subtotal - Year 2007	171.9	426.3	813.4	0.6	46.0	42.3
Year 2010 - Idling	38.5	159.9	381.9	0.2	5.7	5.2
Year 2010 - Driving	100.2	206.0	394.9	0.3	27.7	25.5
Subtotal - Year 2010	138.7	365.8	776.8	0.5	33.4	30.7
Year 2025 - Idling	23.3	125.2	371.1	0.2	0.7	0.6
Year 2025 - Driving	19.5	42.3	86.7	0.3	1.6	1.5
Subtotal - Year 2025	42.9	167.5	457.8	0.5	2.3	2.1
Year 2038 - Idling	23.0	124.8	371.9	0.2	0.3	0.3
Year 2038 - Driving	15.3	33.4	66.5	0.3	1.0	0.9
Subtotal - Year 2038	38.4	158.2	438.5	0.5	1.4	1.2
Off-Terminal						
Year 2003 - Idling	52.2	122.0	286.8	1.7	8.5	7.8
Year 2003 - Driving	876.4	3,480.5	7,918.2	53.1	524.1	482.1
Subtotal - Year 2003	928.6	3,602.4	8,205.0	54.8	532.5	489.9
Year 2007 - Idling	51.6	187.6	391.5	0.2	8.2	7.6
Year 2007 - Driving	1,010.1	3,576.1	9,958.7	7.7	455.4	419.0
Subtotal - Year 2007	1,061.7	3,763.7	10,350.2	8.0	463.6	426.6
Year 2010 - Idling	46.2	191.8	458.3	0.3	6.8	6.3
Year 2010 - Driving	1,289.1	4,547.1	12,650.8	10.9	548.9	505.0
Subtotal - Year 2010	1,335.3	4,738.9	13,109.0	11.2	555.7	511.2
Year 2025 - Idling	28.0	150.3	445.4	0.2	0.8	0.7
Year 2025 - Driving	214.1	1,132.2	2,973.8	11.8	82.7	76.1
Subtotal - Year 2025	242.1	1,282.5	3,419.2	12.0	83.5	76.8
Year 2038 - Idling	27.7	149.7	446.3	0.2	0.4	0.4
Year 2038 - Driving	281.6	924.2	2,349.6	12.2	59.4	54.7
Subtotal - Year 2038	309.2	1,073.9	2,795.9	12.4	59.8	55.1
Total Daily Truck Emissions by Project Year						
Year 2003	1,132	4,071	9,126	61	588	541
Year 2007	1,234	4,190	11,164	9	510	469
Year 2010	1,474	5,105	13,886	12	589	542
Year 2025	285	1,450	3,877	12	86	79
Year 2038	348	1,232	3,234	13	61	56

Notes: (1) On-terminal driving emissions calculated with 10 mph emission factors.

Table D1.2.Alt3-2010-PD22. Road Dust Emissions for the Berths 136-147 Terminal Project - Alt 3.

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.32	13.91
Year 2007	102.33	17.29
Year 2010	88.61	14.98
Year 2025	78.97	13.35
Year 2038	78.97	13.35
Off-Terminal		
Year 2003 - Baseline	114.80	19.40
Year 2007	142.71	24.12
Year 2010	198.14	33.48
Year 2025	208.71	35.27
Year 2038	215.78	36.47
Combined On/Off-Terminal		
Year 2003 - Baseline	197.13	33.31
Year 2007	245.04	41.41
Year 2010	286.75	48.46
Year 2025	287.68	48.62
Year 2038	294.75	49.81

Notes: (1) 47.05 % freeway travel and 52.95% surface street travel

Table D1.2.Alt3-2010-PD23. Brake and Tire Wear Emissions for the Berths 136-147 Terminal Project - Alt 3.

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	0.51	0.22
Year 2007	0.63	0.27
Year 2010	0.54	0.23
Year 2025	0.49	0.21
Year 2038	0.49	0.21
Off-Terminal		
Year 2003 - Baseline	16.00	6.86
Year 2007	19.89	8.53
Year 2010	27.62	11.85
Year 2025	29.09	12.48
Year 2038	30.08	12.90
Combined On/Off-Terminal		
Year 2003 - Baseline	16.51	7.08
Year 2007	20.52	8.80
Year 2010	28.16	12.08
Year 2025	29.57	12.69
Year 2038	30.56	13.11

Table D1.2.Alt3-2010-PD24. Total Non-Combustive Truck Generated PM Emissions for the Berths 136-147 Terminal Project - Alt 3.

Activity	*Daily Emissions (Pounds)*	
	PM10	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.83	14.13
Year 2007	102.96	17.56
Year 2010	89.16	15.21
Year 2025	79.45	13.55
Year 2038	79.45	13.55
Off-Terminal		
Year 2003 - Baseline	130.81	26.27
Year 2007	162.60	32.65
Year 2010	225.75	45.33
Year 2025	237.80	47.75
Year 2038	245.86	49.37
Combined On/Off-Terminal		
Year 2003 - Baseline	214	40
Year 2007	266	50
Year 2010	315	61
Year 2025	317	61
Year 2038	325	63

Table D1.2.Alt3-2010-PD25. Peak Day Train Trips - Berths 136-147 Terminal Project - Alt 3.

Project Scenario/Rail Yard	*Peak Daily Round Trips*	TEUs/ Day
Year 2003 Baseline		
To/from Berths 136-147 ICTF	-	
To/from Carson/LA Rail Yards	2	1,224
Year 2007		
To/from Berths 136-147 ICTF	-	
To/from Carson/LA Rail Yards	2	1,224
Year 2010		
To/from Berths 136-147 ICTF	2	1,224
To/from Carson/LA Rail Yards	1	612
Year 2025		
To/from Berths 136-147 ICTF	2	1,224
To/from Carson/LA Rail Yards	1	612
Year 2038		
To/from Berths 136-147 ICTF	2	1,224
To/from Carson/LA Rail Yards	1	612

Table D1.2.Alt3-2010-PD26. Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project Alt 3 Year 2010.

	Tons				
ICTF/Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Berths 136-147/Outbound					
Hostler	0.00	0.02	0.04	0.00	0.00
Top Picks	0.00	0.01	0.02	0.00	0.00
Line Haul Locomotive - Road Haul	0.02	0.05	0.29	0.01	0.01
Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00
Yard Locomotive - Switching	0.00	0.00	0.01	0.00	0.00
Subtotal	0.03	0.08	0.36	0.01	0.01
Berths 136-147/Inbound					
Hostler	0.00	0.01	0.01	0.00	0.00
Top Picks	0.00	0.00	0.01	0.00	0.00
Line Haul Locomotive - Road Haul	0.02	0.05	0.29	0.01	0.01
Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00
Subtotal	0.02	0.06	0.32	0.01	0.01
Carson or LA Railyards/Outbound					
Hostler	0.00	0.01	0.02	0.00	0.00
Top Picks	0.00	0.00	0.01	0.00	0.00
Line Haul Locomotive - Road Haul	0.01	0.02	0.13	0.00	0.00
Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00
Yard Locomotive - Switching	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.04	0.18	0.00	0.01
Carson or LA Railyards/Inbound					
Hostler	0.00	0.00	0.01	0.00	0.00
Top Picks	0.00	0.00	0.00	0.00	0.00
Line Haul Locomotive - Road Haul	0.01	0.02	0.13	0.00	0.00
Line Haul Locomotive - Notch 1	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.03	0.15	0.00	0.00
Total Tons Per Year	0.07	0.21	1.01	0.02	0.03

Table D1.2.Alt3-2010-PD27. Summary of Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project Alt 3.

	Tons				
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Baseline Year 2003					
ICTF Equipment	0.01	0.03	0.10	0.00	0.01
Trains	0.05	0.10	0.87	0.06	0.03
Subtotal	0.06	0.14	0.97	0.06	0.03
Project Year 2007					
ICTF Equipment	0.01	0.03	0.10	0.00	0.00
Trains	0.04	0.10	0.62	0.06	0.02
Subtotal	0.05	0.14	0.72	0.06	0.03
Project Year 2010					
ICTF Equipment	0.01	0.05	0.12	0.00	0.01
Trains	0.06	0.16	0.89	0.02	0.02
Subtotal	0.07	0.21	1.01	0.02	0.03

Table D1.2.Alt3-2010-PD28. Peak Day Terminal Yard TEU Throughput - Berths 136-147 Terminal Project Alt 3.

	Peak Daily TEUs				Peak Daily/
Project Year	*Wharf*	*Gate*	*Total*	*Annual TEUs*	*Annual TEUs*
2003	5,984	8,310	14,294	891,976	0.016
2007	6,732	10,330	17,062	1,073,600	0.016
2010	6,732	11,340	18,072	1,351,400	0.013
2015	11,781	10,106	21,887	2,035,000	0.011
2038	11,781	10,106	21,887	2,035,000	0.011

Table D1.2.Alt3-2010-PD29. Terminal Equipment Annual Emissions - Berths 136-147 Terminal Project Alt 3.

Project Scenario/Equipment Horsepowe	*Peak Daily Hp-Hrs*	*Annual Emissions (Tons)*					
		ROG	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline - Year 2003							
Terminal Equipment - 121-175 Hp	10,493,875	9.61	39.16	105.82	1.19	6.03	5.55
Terminal Equipment - 176-250 Hp	12,581,479	6.11	18.34	94.22	1.42	3.37	3.10
Terminal Equipment - 250-500 Hp	2,417,350	1.18	3.92	18.61	0.27	0.58	0.53
Subtotal	25,492,704	16.89	61.43	218.65	2.89	9.98	9.18
Project Year 2007							
Terminal Equipment - 121-175 Hp	12,633,098	11.05	48.60	117.08	0.06	5.44	5.01
Terminal Equipment - 176-250 Hp	15,146,270	9.52	26.72	118.10	0.07	4.83	4.44
Terminal Equipment - 250-500 Hp	2,910,137	1.29	4.49	19.83	0.01	0.70	0.64
Subtotal	30,689,504	21.86	79.81	255.01	0.15	10.98	10.10
Project Year 2010							
Terminal Equipment - 121-175 Hp	15,898,312	10.94	59.10	121.87	0.08	5.68	5.23
Terminal Equipment - 176-250 Hp	19,061,051	9.64	30.63	127.06	0.09	5.17	4.76
Terminal Equipment - 250-500 Hp	3,662,306	1.40	5.30	21.48	0.02	0.83	0.77
Subtotal	38,621,669	21.98	95.03	270.41	0.19	11.69	10.75

Table D1.2.Alt3-2010-PD30. Terminal Equipment Peak Daily Emissions - Berths 136-147 Terminal Project Alt 3.

		Annual Emissions (Tons)					
Project Scenario/Equipment Horsepower		*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2003							
Terminal Equipment - 121-175 Hp	168,169	0.15	0.63	1.70	0.02	0.10	0.09
Terminal Equipment - 176-250 Hp	201,624	0.10	0.29	1.51	0.02	0.05	0.05
Terminal Equipment - 250-500 Hp	38,739	0.02	0.06	0.30	0.00	0.01	0.01
Subtotal	408,533	0.27	0.98	3.50	0.05	0.16	0.15
Project Year 2007							
Terminal Equipment - 121-175 Hp	200,771	0.18	0.77	1.86	0.00	0.09	0.08
Terminal Equipment - 176-250 Hp	240,712	0.15	0.42	1.88	0.00	0.08	0.07
Terminal Equipment - 250-500 Hp	46,249	0.02	0.07	0.32	0.00	0.01	0.01
Subtotal	487,732	0.35	1.27	4.05	0.00	0.17	0.16
Project Year 2010							
Terminal Equipment - 121-175 Hp	212,601	0.15	0.79	1.63	0.00	0.08	0.07
Terminal Equipment - 176-250 Hp	254,895	0.13	0.41	1.70	0.00	0.07	0.06
Terminal Equipment - 250-500 Hp	48,974	0.02	0.07	0.29	0.00	0.01	0.01
Subtotal	516,470	0.29	1.27	3.62	0.00	0.16	0.14

Table D1.2.Alt3-2010-PD31. On-Road Truck Trip Vehicle Miles Travelled - Berths 136-147 Terminal Project - Alt 3.

Year	*B136-149 Throughput (TEUs)*	*B136-149 ICTF Thruput (TEUs) (1)*	*TEUs to Offsite Railyard (2)*	*TEUs to Local Deilveries*	*Truck Trips to Offsite Railyard (2)*	*Local Truck Trips (3)*	*Truck Miles to Offsite Railyard (4)*	*Local Truck Trip Miles (5)*	*Composite VMT/ Truck Trip*
Baseline - Year 2003	891,976	-	445,988	445,988	598,795	598,795	9.6	55.0	32.3
Year 2007	1,073,600	-	536,800	536,800	744,330	744,330	9.6	55.0	32.3
Year 2010	1,351,400	188,339	362,175	800,886	508,868	1,125,271	9.6	55.0	40.9
Year 2015	2,035,000	552,709	218,556	1,263,735	214,723	1,241,570	9.6	55.0	48.3
Year 2030	2,035,000	700,810	148,555	1,185,635	162,151	1,294,142	9.6	55.0	49.9

(1) Peak Daily throughput estimates from Rail Master Plan.

(2) Based on 50/50/26.8/6.7/7.3% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(3) Based on 50/50/61.4/62.1/63.4% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(4) Assumes an even split to Carson ICTF (4.5 miles) and LA railyards (18 miles) = 11.3 miles/trip

(5) Average local trip length with origin/destination at the POLA.

Table D1.2.Alt3-2010-PD32. Peak Daily Operational Emissions - Berths 136-147 Terminal Project Alt 3.

	Pounds per Peak Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	57	208	2,019	1,975	173	162
Tugboats - Cargo Vessel Assist (1)	5	24	156	10	6	6
Terminal Equipment	542	1,969	7,008	92	320	294
On-road Trucks	1,132	4,071	9,126	61	801	581
Trains	100	208	1,737	111	52	48
Railyard Equipment	17	63	202	3	10	9
Commuting	12	160	20	0	12	11
Pier A Railyard	4	6	55	1	1	1
Year 2003 Total	1,977	6,935	23,010	3,851	1,607	1,329
Project Year 2007						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236	221
Tugboats - Cargo Vessel Assist (1)	5	24	147	0	6	6
Terminal Equipment	695	2,537	8,105	5	349	321
On-road Trucks	1,234	4,190	11,164	9	775	519
Trains	89	208	1,245	111	47	43
Railyard Equipment	17	67	193	0	9	8
Commuting	10	137	18	0	15	14
Pier A Railyard	4	7	54	1	1	1
Project Year 2007 Total	2,242	7,664	26,404	4,191	1,669	1,349
Net Change from Existing Conditions	265	729	3,393	341	62	20
Net Change from NFAB Year 2007	2,242	7,664	26,404	4,191	1,669	1,349
Project Year 2010						
Ships - Fairway Transit (1)	117	265	3,260	1,913	276	258
Ships - Precautionary Area Transit (1)	28	57	527	312	47	44
Ships - Harbor Transit (1)	41	52	392	191	40	37
Ships - Docking (1)	14	14	109	46	12	11
Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236	221
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6	5
Terminal Equipment	588	2,542	7,232	5	313	288
On-road Trucks	1,474	5,105	13,886	12	904	603
Trains	128	326	1,772	39	49	45
Railyard Equipment	21	96	243	0	11	10
Commuting	10	135	17	0	19	17
Pier A Railyard	2	9	30	0	1	1
Project Year 2010 Total	2,507	8,890	30,397	4,986	1,912	1,540
Net Change from Existing Conditions	530	1,955	7,387	1,136	305	211
Net Change from NFAB Year 2010	1,169	3,763	13,347	1,940	786	728

Table D1.2.Alt4-2010-PD1. Peak Daily Ship Visit and Throughput Data - Berths 136-147 Terminal Project -

Project Scenario/Ship Type	*Peak Daily Ship Visits*	*Max TEU Moves/ Peak Day (1)*	*Peak Daily TEU Moves*	*Hoteling Hours/ Day (2)*
Baseline - Year 2003				
Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
Containerships < 3,000 TEU	1	2,992	2,992	24.0
Subtotal	**2**		**5,984**	
Project Year 2007				
Containerships 5,000 - 6,000 TEU		3,740		
Containerships 3,000 - 5,000 TEU		2,992		
Containerships < 3,000 TEU	1	2,992	2,992	24.0
Subtotal	**1**		**2,992**	
Project Year 2010				
Containerships 8,000 - 9,000 TEU		4,488		
Containerships 5,000 - 6,000 TEU		3,740		
Containerships 3,000 - 5,000 TEU		2,992		
Containerships < 3,000 TEU	1	2,992	2,992	24.0
Subtotal	**1**		**2,992**	
Project Year 2025				
Containerships 8,000 - 9,000 TEU		5,890		
Containerships 5,000 - 6,000 TEU		4,909		
Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
Containerships < 3,000 TEU		3,927		
Subtotal	**1**		**3,927**	
Project Year 2038				
Containerships 8,000 - 9,000 TEU		5,890		
Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
Containerships 3,000 - 5,000 TEU		3,927		
Containerships < 3,000 TEU		3,927		
Subtotal	**1**		**4,909**	

Notes: (1) Assumes that 4 cranes would service <3,000 and 3-5,000 TEU vessels @ 1600 lifts/day = 2992 TEUs/day, 5 cranes would service 5-6,000 TEU vessels @ 2000 lifts/day = 3740 TEUs/day, and 6 cranes would service 8-9,000 TEU vessels @ 2400 lifts/day = 4488 TEUs/day (TraPac 2006) during 16 hours of service. Beginning in year 2015, crane service time increases to 21 hours/day and 4-, 5-, and 6- crane production = 3,927, 4,909, and 5,890 TEUs/day.

(2) There are 10 cranes present from 2007 through 2011, then 12 cranes beginning in 2012.

Table D1.2.Alt4-2010-PD2. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Vessel Type	*Tons Per Year (1)(2)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
Subtotal	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
Subtotal	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
Subtotal	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.06	0.13	1.54	0.88	0.13
Containerships < 3,000 TEU					
Subtotal	**0.06**	**0.13**	**1.54**	**0.88**	**0.13**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.06	0.13	1.54	0.88	0.13
Containerships < 3,000 TEU					
Subtotal	**0.06**	**0.13**	**1.54**	**0.88**	**0.13**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.
(2) Assumes VSRP compliance for all project years.

Table D1.2.Alt4-2010-PD3. Peak Daily Cargo Vessel Emissions within the POLA Precautionary Area - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
Subtotal	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
Subtotal	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
Subtotal	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.02	0.20	0.10	0.02
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.02**	**0.20**	**0.10**	**0.02**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.02	0.20	0.10	0.02
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.02**	**0.20**	**0.10**	**0.02**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD4. Peak Daily Cargo Vessel Emissions for Transit within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 4.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
Subtotal	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
Subtotal	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
Subtotal	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.02	0.02	0.10	0.02	0.01
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.02**	**0.10**	**0.02**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.02	0.02	0.10	0.02	0.01
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.02**	**0.10**	**0.02**	**0.01**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD5. Peak Daily Cargo Vessel Emissions for Docking Activities - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.00**	**0.03**	**0.00**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.00**	**0.03**	**0.00**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD6. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project - Alt 4.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
Subtotal	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
Subtotal	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
Subtotal	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.08	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.08**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.08	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.08**	**0.01**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.
(2) Assumes VSRP compliance for all project years.

Table D1.2.Alt4-2010-PD7. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area - Berths 136-147 Terminal Project - Alt 4.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.06	0.04	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.06**	**0.04**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.06	0.04	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.06**	**0.04**	**0.01**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD8. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 4.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
Subtotal	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
Subtotal	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
Subtotal	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.06	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.06**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.06	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.06**	**0.01**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD9. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Docking within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 4.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.03	0.02	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.03	0.02	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD10. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Hoteling - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
Containership < 3,000 TEU	0.01	0.03	0.34	0.22	0.03
Subtotal	**0.03**	**0.07**	**0.92**	**0.59**	**0.08**
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	0.01	0.03	0.34	0.22	0.03
Subtotal	**0.01**	**0.03**	**0.34**	**0.22**	**0.03**
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	0.01	0.03	0.34	0.16	0.02
Subtotal	**0.01**	**0.03**	**0.34**	**0.16**	**0.02**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**0.02**	**0.04**	**0.58**	**0.37**	**0.05**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**0.02**	**0.04**	**0.58**	**0.37**	**0.05**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Table D1.2.Alt4-2010-PD11. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.
(2) Assumes VSRP compliance for all project years.

Table D1.2.Alt4-2010-PD12. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.02	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.02	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD13. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.01	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.01	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD14. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLA Breakwater - Berths 136-147 Terminal Project - Alt 4.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2007					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD15. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Hoteling - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containership < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
Subtotal	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
Subtotal	**0.00**	**0.02**	**0.05**	**0.20**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
Subtotal	**0.00**	**0.02**	**0.05**	**0.20**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**0.00**	**0.02**	**0.05**	**0.20**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**0.00**	**0.02**	**0.05**	**0.20**	**0.01**

Table D1.2.Alt4-2010-PD16. Peak Daily Tugboat Emissions for Cargo Vessel Assists - Berths 136-147 Terminal Project - Alt 4.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Subtotal	**0.00**	**0.01**	**0.07**	**0.00**	**0.00**
Project Year 2007					
Subtotal	**0.00**	**0.01**	**0.07**	**0.00**	**0.00**
Project Year 2010					
Subtotal	**0.00**	**0.01**	**0.06**	**0.00**	**0.00**
Project Year 2025					
Subtotal	**0.00**	**0.01**	**0.05**	**0.00**	**0.00**
Project Year 2038					
Subtotal	**0.00**	**0.01**	**0.04**	**0.00**	**0.00**

Note: (1) Assumes 3 tug assists per ship visit for all project years.

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD17. Peak Daily Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - Berths 136-147 Terminal Project - Alt 4.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2007					
Subtotal (1)	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2010					
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2025					
Subtotal (1)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2038					
Subtotal (1)	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Note: (1) Assumes 3 tug assists per ship visit for all project years.

Note: (1) Assumes 1 round trip/peak day for the smallest vessel in 2003, then one size larger for each future project year.

Table D1.2.Alt4-2010-PD18. Peak Daily Vessel Emissions - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Emission Source	*Pounds Per Day*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Ships - Fairway Transit (1)	68	160	2,076	1,230	174
Ships - Precautionary Area Transit (1)	13	31	350	231	30
Ships - Harbor Transit (1)	22	28	205	110	21
Ships - Docking (1)	8	8	57	27	6
Ships - Hoteling Aux. Sources	57	208	2,019	1,975	173
Tugboats - Cargo Vessel Assist (1)	5	24	156	10	6
Subtotal	**171**	**458**	**4,863**	**3,583**	**410**
Project Year 2007					
Ships - Fairway Transit (1)	68	160	2,076	1,230	174
Ships - Precautionary Area Transit (1)	13	31	350	231	30
Ships - Harbor Transit (1)	22	28	205	110	21
Ships - Docking (1)	8	8	57	27	6
Ships - Hoteling Aux. Sources	22	86	773	836	67
Tugboats - Cargo Vessel Assist (1)	5	24	147	0	6
Subtotal	**136**	**336**	**3,608**	**2,434**	**304**
Project Year 2010					
Ships - Fairway Transit (1)	68	160	2,076	1,230	174
Ships - Precautionary Area Transit (1)	13	31	350	231	30
Ships - Harbor Transit (1)	22	28	205	110	21
Ships - Docking (1)	8	8	57	27	6
Ships - Hoteling Aux. Sources	22	86	762	712	54
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6
Subtotal	**136**	**336**	**3,589**	**2,311**	**291**

Table D1.2.Alt4-2010-PD19. ADT Estimates - Berths 136-147 - Alt 4.

Alternative/Project Year	Truck Trips		
	Peak Daily	ADT	Peak Daily (1)
2003 - Baseline	1,197,589	3,281	4,492
2007	490,858	1,345	1,841
2010	627,300	1,719	2,666
2015	672,434	1,842	2,522
2030	672,434	1,842	2,522

(1) = Peak Daily trips/ 266.6 days.

Table D1.2.Alt4-2010-PD20. On-Road Truck Operational Data for the Berths 136-147 Terminal Project - Alt 4

Activity/Project Scenario	*Idling Time/ Trip (Hrs) (1)*	*Miles/ Trip (2)*	*Peak Daily Trips*	*Idling Hrs/ Day*	*Miles/ Day*	*TEUs/ Day*
On-Terminal						
Year 2003 - Baseline	0.56	1.02	4,492	2,516	4,587	8,310
Year 2007	0.25	1.02	1,841	460	1,880	3,406
Year 2010	0.25	0.81	2,666	667	2,148	4,932
Year 2025	0.25	0.81	2,522	631	2,032	4,666
Year 2038	0.25	0.81	2,522	631	2,032	4,666
Off-Terminal						
Year 2003 - Baseline	0.30	32.3	4,492	1,348	145,162	
Year 2007	0.30	32.3	1,841	552	59,498	
Year 2010	0.30	32.3	2,666	800	86,156	
Year 2025	0.30	32.3	2,522	757	81,507	
Year 2038	0.30	32.3	2,522	757	81,507	

Notes: (1) 2003 on-terminal durations from PEI. Post-2003 on-terminal durations from TraPac (TraPac 2006).

(2) On-terminal mileage/trip based upon current/proposed terminal gate systems. Off-terminal miles/trip from data presented in Table D1.2.34.

Table D1.2.Alt4-2010-PD21. Peak Daily Truck Emissions for the Berths 136-147 Terminal Project - Alt 4

	Pounds per Peak Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal (1)						
Year 2003 - Idling	97.4	227.7	535.4	3.2	15.8	14.5
Year 2003 - Driving	106.2	241.0	385.6	2.7	39.3	36.2
Subtotal - Year 2003	203.5	468.7	921.0	5.9	55.1	50.7
Year 2007 - Idling	14.2	51.5	107.6	0.1	2.3	2.1
Year 2007 - Driving	42.5	89.0	160.6	0.1	12.9	11.9
Subtotal - Year 2007	56.7	140.6	268.2	0.2	15.2	14.0
Year 2010 - Idling	16.8	69.5	166.1	0.1	2.5	2.3
Year 2010 - Driving	43.6	89.6	171.8	0.1	12.1	11.1
Subtotal - Year 2010	60.3	159.1	337.9	0.2	14.5	13.4
Year 2025 - Idling	10.8	57.8	171.4	0.1	0.3	0.3
Year 2025 - Driving	9.0	19.5	40.0	0.1	0.8	0.7
Subtotal - Year 2025	19.8	77.4	211.4	0.2	1.1	1.0
Year 2038 - Idling	10.6	57.6	171.7	0.1	0.2	0.1
Year 2038 - Driving	7.1	15.4	30.7	0.1	0.5	0.4
Subtotal - Year 2038	17.7	73.0	202.5	0.2	0.6	0.6
Off-Terminal						
Year 2003 - Idling	52.2	122.0	286.8	1.7	8.5	7.8
Year 2003 - Driving	876.4	3,480.5	7,918.2	53.1	524.1	482.1
Subtotal - Year 2003	928.6	3,602.4	8,205.0	54.8	532.5	489.9
Year 2007 - Idling	17.0	61.9	129.1	0.1	2.7	2.5
Year 2007 - Driving	333.1	1,179.2	3,283.7	2.5	150.2	138.2
Subtotal - Year 2007	350.1	1,241.0	3,412.8	2.6	152.9	140.6
Year 2010 - Idling	20.1	83.4	199.3	0.1	3.0	2.7
Year 2010 - Driving	443.3	1,563.7	4,350.6	3.8	188.8	173.7
Subtotal - Year 2010	463.4	1,647.2	4,549.9	3.9	191.7	176.4
Year 2025 - Idling	12.9	69.4	205.6	0.1	0.4	0.3
Year 2025 - Driving	66.1	349.7	918.5	3.6	25.5	23.5
Subtotal - Year 2025	79.1	419.1	1,124.1	3.7	25.9	23.8
Year 2038 - Idling	12.8	69.1	206.1	0.1	0.2	0.2
Year 2038 - Driving	84.1	276.1	701.9	3.6	17.8	16.3
Subtotal - Year 2038	96.9	345.2	908.0	3.7	17.9	16.5
Total Daily Truck Emissions by Project Year						
Year 2003	1,132	4,071	9,126	61	588	541
Year 2007	407	1,382	3,681	3	168	155
Year 2010	524	1,806	4,888	4	206	190

Table D1.2.Alt4-2010-PD22. Road Dust Emissions for the Berths 136-147 Terminal Project - Alt 4

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.32	13.91
Year 2007	33.74	5.70
Year 2010	38.54	6.51
Year 2025	36.46	6.16
Year 2038	36.46	6.16
Off-Terminal		
Year 2003 - Baseline	114.80	19.40
Year 2007	47.06	7.95
Year 2010	68.14	11.52
Year 2025	64.46	10.89
Year 2038	64.46	10.89
Combined On/Off-Terminal		
Year 2003 - Baseline	197.13	33.31
Year 2007	80.80	13.65
Year 2010	106.68	18.03
Year 2025	100.93	17.06
Year 2038	100.93	17.06

Notes: (1) 47.05 % freeway travel and 52.95% surface street travel

Table D1.2.Alt4-2010-PD23. Brake and Tire Wear Emissions for the Berths 136-147 Terminal Project - Alt 4

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	0.51	0.22
Year 2007	0.21	0.09
Year 2010	0.24	0.10
Year 2025	0.22	0.10
Year 2038	0.22	0.10
Off-Terminal		
Year 2003 - Baseline	16.00	6.86
Year 2007	6.56	2.81
Year 2010	9.50	4.07
Year 2025	8.98	3.85
Year 2038	8.98	3.85
Combined On/Off-Terminal		
Year 2003 - Baseline	16.51	7.08
Year 2007	6.77	2.90
Year 2010	9.73	4.18
Year 2025	9.21	3.95
Year 2038	9.21	3.95

Table D1.2.Alt4-2010-PD24. Total Non-Combustive Truck Generated PM Emissions for the Berths 136-147 Terminal Project - Alt 4

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.83	14.13
Year 2007	33.95	5.79
Year 2010	38.78	6.62
Year 2025	36.69	6.26
Year 2038	36.69	6.26
Off-Terminal		
Year 2003 - Baseline	130.81	26.27
Year 2007	53.61	10.77
Year 2010	77.64	15.59
Year 2025	73.45	14.75
Year 2038	73.45	14.75
Combined On/Off-Terminal		
Year 2003 - Baseline	214	40
Year 2007	88	17
Year 2010	116	22

Table D1.2.Alt4-2010-PD25. Peak Day Train Trips - Berths 136-147 Terminal Project - Alt 4.

Project Scenario/Rail Yard	*Peak Daily Round Trips*	TEUs/ Day
Year 2003 Baseline		
To/from Berths 136-147 ICTF	-	
To/from Carson/LA Rail Yards	2	1,224
Year 2007		
To/from Berths 136-147 ICTF	-	
To/from Carson/LA Rail Yards	2	1,224
Year 2010		
To/from Berths 136-147 ICTF	-	-
To/from Carson/LA Rail Yards	2	1,224
Year 2025		
To/from Berths 136-147 ICTF	-	-
To/from Carson/LA Rail Yards	2	1,224
Year 2038		
To/from Berths 136-147 ICTF	-	-
To/from Carson/LA Rail Yards	2	1,224

Table D1.2.Alt4-2010-PD26. Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project Alt 4 Year 2010.

	Tons				
ICTF/Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Berths 136-147/Outbound					
Hostler	-	-	-	-	-
Top Picks	-	-	-	-	-
Line Haul Locomotive - Road Haul	-	-	-	-	-
Line Haul Locomotive - Notch 1	-	-	-	-	-
Yard Locomotive - Switching	-	-	-	-	-
Subtotal	-	-	-	-	-
Berths 136-147/Inbound					
Hostler	-	-	-	-	-
Top Picks	-	-	-	-	-
Line Haul Locomotive - Road Haul	-	-	-	-	-
Line Haul Locomotive - Notch 1	-	-	-	-	-
Subtotal	-	-	-	-	-
Carson or LA Railyards/Outbound					
Hostler	0.00	0.02	0.04	0.00	0.00
Top Picks	0.00	0.01	0.02	0.00	0.00
Line Haul Locomotive - Road Haul	0.02	0.05	0.27	0.01	0.01
Line Haul Locomotive - Notch 1	0.00	0.00	0.02	0.00	0.00
Yard Locomotive - Switching	0.00	0.00	0.01	0.00	0.00
Subtotal	0.03	0.08	0.35	0.01	0.01
Carson or LA Railyards/Inbound					
Hostler	0.00	0.01	0.01	0.00	0.00
Top Picks	0.00	0.00	0.01	0.00	0.00
Line Haul Locomotive - Road Haul	0.02	0.05	0.27	0.01	0.01
Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00
Subtotal	0.02	0.06	0.30	0.01	0.01
Total Tons Per Year	0.05	0.14	0.65	0.01	0.02

Table D1.2.Alt4-2010-PD27. Summary of Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project Alt 4.

	Tons				
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Baseline Year 2003					
ICTF Equipment	0.01	0.03	0.10	0.00	0.01
Trains	0.05	0.10	0.87	0.06	0.03
Subtotal	0.06	0.14	0.97	0.06	0.03
Project Year 2007					
ICTF Equipment	0.01	0.03	0.10	0.00	0.00
Trains	0.04	0.10	0.62	0.06	0.02
Subtotal	0.05	0.14	0.72	0.06	0.03
Project Year 2010					
ICTF Equipment	0.01	0.03	0.08	0.00	0.00
Trains	0.04	0.10	0.57	0.01	0.02
Subtotal	0.05	0.14	0.65	0.01	0.02

Table D1.2.Alt4-2010-PD28. Peak Daily Terminal Yard TEU Throughput - Berths 136-147 Terminal Project Alt 4.

	Peak Daily TEUs				Peak Daily/
Project Year	*Wharf*	*Gate*	*Total*	*Annual TEUs*	*Annual TEUs*
2003	5,984	8,310	14,294	891,976	0.016
2007	2,992	3,406	6,398	354,000	0.018
2010	2,992	4,932	7,924	452,400	0.018
2025	3,927	4,666	8,593	499,200	0.017
2038	4,909	4,666	9,575	565,700	0.017

Table D1.2.Alt4-2010-PD29. Terminal Equipment Annaul Emissions - Berths 136-147 Terminal Project Alt 4.

Project Scenario/Equipment Horsepowe	*Peak Daily Hp-Hrs*	*Annual Emissions (Tons)*					
		ROG	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline - Year 2003							
Terminal Equipment - 121-175 Hp	10,493,875	9.61	39.16	105.82	1.19	6.03	5.55
Terminal Equipment - 176-250 Hp	12,581,479	6.11	18.34	94.22	1.42	3.37	3.10
Terminal Equipment - 250-500 Hp	2,417,350	1.18	3.92	18.61	0.27	0.58	0.53
Subtotal	25,492,704	16.89	61.43	218.65	2.89	9.98	9.18
Project Year 2007							
Terminal Equipment - 121-175 Hp	4,166,015	3.64	16.03	38.61	0.02	1.80	1.65
Terminal Equipment - 176-250 Hp	4,994,783	3.14	8.81	38.95	0.02	1.59	1.47
Terminal Equipment - 250-500 Hp	959,676	0.42	1.48	6.54	0.00	0.23	0.21
Subtotal	10,120,473	7.21	26.32	84.09	0.05	3.62	3.33
Project Year 2010							
Terminal Equipment - 121-175 Hp	5,323,240	3.66	19.79	40.81	0.03	1.90	1.75
Terminal Equipment - 176-250 Hp	6,382,222	3.23	10.25	42.54	0.03	1.73	1.59
Terminal Equipment - 250-500 Hp	1,226,252	0.47	1.78	7.19	0.01	0.28	0.26
Subtotal	12,931,714	7.36	31.82	90.54	0.06	3.91	3.60

Table D1.2.Alt4-2010-PD30. Terminal Equipment Peak Daily Emissions - Berths 136-147 Terminal Project Alt 4.

		Tons				
Project Scenario/Equipment Horsepower		*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Project Year 2003						
Terminal Equipment - 121-175 Hp	168,169	0.15	0.63	1.70	0.02	0.10
Terminal Equipment - 176-250 Hp	201,624	0.10	0.29	1.51	0.02	0.05
Terminal Equipment - 250-500 Hp	38,739	0.02	0.06	0.30	0.00	0.01
Subtotal	408,533	0.27	0.98	3.50	0.05	0.16
Project Year 2007						
Terminal Equipment - 121-175 Hp	75,296	0.07	0.29	0.70	0.00	0.03
Terminal Equipment - 176-250 Hp	90,275	0.06	0.16	0.70	0.00	0.03
Terminal Equipment - 250-500 Hp	17,345	0.01	0.03	0.12	0.00	0.00
Subtotal	182,917	0.13	0.48	1.52	0.00	0.07
Project Year 2010						
Terminal Equipment - 121-175 Hp	93,243	0.06	0.35	0.71	0.00	0.03
Terminal Equipment - 176-250 Hp	111,792	0.06	0.18	0.75	0.00	0.03
Terminal Equipment - 250-500 Hp	21,479	0.01	0.03	0.13	0.00	0.00
Subtotal	226,515	0.13	0.56	1.59	0.00	0.07

Table D1.2.Alt4-2010-PD31. On-Road Truck Trip Vehicle Miles Travelled - Berths 136-147 Terminal Project - Alt 3.

Year	*B136-149 Throughput (TEUs)*	*B136-149 ICTF Thruput (TEUs) (1)*	*TEUs to Offsite Railyard (2)*	*TEUs to Local Deilveries*	*Truck Trips to Offsite Railyard (2)*	*Local Truck Trips (3)*	*Truck Miles to Offsite Railyard (4)*	*Local Truck Trip Miles (5)*	*Composite VMT/ Truck Trip*
Baseline - Year 2003	891,976	-	445,988	445,988	598,795	598,795	9.6	55.0	32.3
Year 2007	354,000	-	177,000	177,000	245,429	245,429	9.6	55.0	32.3
Year 2010	452,400	-	226,200	226,200	313,650	313,650	9.6	55.0	32.3
Year 2015	499,200	-	249,600	249,600	336,217	336,217	9.6	55.0	32.3
Year 2030	565,700	-	282,850	282,850	336,217	336,217	9.6	55.0	32.3

(1) Peak Daily throughput estimates from Rail Master Plan.

(2) Based on 50/50/26.8/6.7/7.3% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(3) Based on 50/50/61.4/62.1/63.4% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(4) Assumes an even split to Carson ICTF (4.5 miles) and LA railyards (18 miles) = 11.3 miles/trip

(5) Average local trip length with origin/destination at the POLA.

Table D1.2.Alt4-2010-PD32. Peak Daily Operational Emissions - Berths 136-147 Terminal Project Alt 4.

	Pounds per Peak Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2007						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	22	86	773	836	67	63
Tugboats - Cargo Vessel Assist (1)	5	24	147	0	6	6
Terminal Equipment	261	951	3,040	2	131	120
On-road Trucks	407	1,382	3,681	3	256	171
Trains	89	208	1,245	111	47	43
Railyard Equipment	17	67	193	0	9	8
Commuting	10	137	18	0	15	14
Pier A Railyard	4	7	54	1	1	1
Project Year 2007 Total	925	3,090	11,839	2,550	762	643
Net Change from 2003 CEQA Baseline	(1,053)	(3,845)	(11,171)	(1,300)	(844)	(686)
Project Year 2010						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	22	86	762	712	54	51
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6	5
Terminal Equipment	258	1,115	3,172	2	137	126
On-road Trucks	524	1,806	4,888	4	323	212
Trains	82	209	1,137	25	32	29
Railyard Equipment	14	64	162	0	7	7
Commuting	10	135	17	0	19	17
Pier A Railyard	2	9	30	0	1	1
Project Year 2010 Total	1,026	3,674	12,995	2,342	809	664
Net Change from 2003 CEQA Baseline	(951)	(3,261)	(10,015)	(1,508)	(798)	(665)

Table D1.2.Alt5-2010-PD1. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths 1 Terminal Project Alternative 5 - Vessels that Comply with Proposed VSRP.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
Subtotal	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.04	0.08	0.82	0.38	0.06
Containerships < 3,000 TEU					
Subtotal	**0.04**	**0.08**	**0.82**	**0.38**	**0.06**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.06	0.12	0.93	0.04	0.03
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.06**	**0.12**	**0.93**	**0.04**	**0.03**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.06	0.12	0.93	0.04	0.03
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.06**	**0.12**	**0.93**	**0.04**	**0.03**

Note: (1) Assumes 25/50/95% VSRP compliance rates for years 2003/2007/post-2007.

(2) Without slide valves

Table D1.2.Alt5-2010-PD2. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths 1 Terminal Project Alternative 5 - Non-Compliant Vessels with the Proposed VSRP.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-

Note: (1) Assumes 75/50/05% VSRP non-compliance rates for years 2003/2007/post-2007.

(2) Fuel types assumed for each project year identified in Table D3-A1.1

(2) Without slide valves

Table D1.2.Alt5-2010-PD3. Peak Daily Cargo Vessel Emissions within the POLA Precautionary Area - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
Subtotal	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.02	0.19	0.08	0.02
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.02**	**0.19**	**0.08**	**0.02**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.02	0.03	0.22	0.01	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.03**	**0.22**	**0.01**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.02	0.03	0.22	0.01	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.03**	**0.22**	**0.01**	**0.01**

(2) Without slide valves

Table D1.2.Alt5-2010-PD4. Peak Daily Cargo Vessel Emissions for Transit within the POLA Breakwater - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
Subtotal	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.02	0.02	0.10	0.02	0.01
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.02**	**0.10**	**0.02**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.03	0.03	0.13	0.00	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.03**	**0.03**	**0.13**	**0.00**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.03	0.03	0.13	0.00	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.03**	**0.03**	**0.13**	**0.00**	**0.01**

Table D1.2.Alt5-2010-PD5. Peak Daily Cargo Vessel Emissions for Docking Activities - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.00**	**0.03**	**0.00**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.01**	**0.04**	**0.00**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.01**	**0.04**	**0.00**	**0.00**

(2) Without slide valves

Table D1.2.Alt5-2010-PD6. Peak Daily Shifting Emissions for Cargo Vessels within the POLA Breakwater - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year				
Project Scenario/Vessel Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Transit					
Docking					
Subtotal	-	-	-	-	-

Table D1.2.Alt5-2010-PD7. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project Alternative 5 - Vessels that Comply with VSRP.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
Subtotal	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.11	0.06	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.11**	**0.06**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.16	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.16**	**0.01**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.16	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.16**	**0.01**	**0.00**

Note: (1) Fuel types assumed for each project year identified in Table D3-A1.1

(2) Assumes 25/50/95% VSRP compliance rates for years 2003/2007/post-2007.

Table D1.2.Alt5-2010-PD8. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project Alternative 5 - Non-Compliant Vessels within VSRP.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-

Note: (1) Assumes 75/50/05% VSRP non-compliance rates for years 2003/2007/post-2007.

(2) Fuel types assumed for each project year identified in Table D3-A1.1

Table D1.2.Alt5-2010-PD9. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area - Berths 136-147 Terminal Project - Alternative 5.

Project Scenario/Vessel Type	*Tons Per Year (1)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.06	0.03	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.06**	**0.03**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.01**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.01**	**0.00**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Table D1.2.Alt5-2010-PD10. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLA Breakwater - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
Subtotal	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.05	0.01
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.09**	**0.05**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.14**	**0.01**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.14**	**0.01**	**0.00**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Table D1.2.Alt5-2010-PD11. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Docking within the POLA Breakwater - Berths 136-147 Terminal Project - Alternative 5.

Project Scenario/Vessel Type	*Tons Per Year (1)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.02	0.01	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.02**	**0.01**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Table D1.2.Alt5-2010-PD12. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Hoteling - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**0.04**	**0.10**	**1.30**	**0.83**	**0.11**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.01	0.03	0.43	0.24	0.03
Containerships 3,000 - 5,000 TEU	0.01	0.03	0.34	0.19	0.02
Containerships < 3,000 TEU					
Subtotal	**0.02**	**0.06**	**0.78**	**0.43**	**0.06**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-

Table D1.2.Alt5-2010-PD13. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Shifts - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year				
Project Scenario/Vessel Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Transit					
Docking					
Subtotal	-	-	-	-	-

Table D1.2.Alt5-2010-PD14. Peak Daily Auxiliary Generator Emissions for Shifted Cargo Vessels during Hoteling - Berths 136-147 Terminal Project - Alternative 5.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-

Table D1.2.Alt5-2010-PD15. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project - Alternative 5 - VSRP-Compliant.

Project Scenario/Vessel Type	*Tons Per Year (1)*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	-	-	-	-	-

Notes: (1) Assumes 25/50/95% VSRP compliance rates for years 2003/2007/post-2007.

(2) Does not assume use of low-sulfur fuels.

Table D1.2.Alt5-2010-PD16. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project - Alternative 5 - VSRP-Non-Compliant.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	-	-	-	-	-

Note: (1) Assumes 75/50/05% VSRP non-compliance rates for years 2003/2007/post-2007.

(2) Does not assume use of low-sulfur fuels.

Table D1.2.Alt5-2010-PD17. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area - Berths 136-147 Terminal Project - Alternative 5.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.02	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**

Table D1.2.Alt5-2010-PD18. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLA Breakwater - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.01	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**

Table D1.2.Alt5-2010-PD19. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLA Breakwater - Berths 136-147 Terminal Project - Alternative 5.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU					
Containerships < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

(2) Does not assume use of low-sulfur fuels.

Table D1.2.Alt5-2010-PD20. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Hoteling - Berths 136-147 Terminal Project - Alternative 5.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
Subtotal	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
Subtotal	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**

(2) Does not assume use of low-sulfur fuels.

Table D1.2.Alt5-2010-PD21. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Shifts - Berths 136-147 Terminal Project - Alternative 5.

Project Scenario/Vessel Mode	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Transit					
Docking					
Hoteling					
Subtotal	-	-	-	-	-

Table D1.2.Alt5-2010-PD22. Peak Daily Tugboat Emissions for Cargo Vessel Assists - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year (1)				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal	-	-	-	-	-
Project Year 2007					
Subtotal					
Project Year 2010					
Subtotal	**0.00**	**0.01**	**0.06**	**0.00**	**0.00**
Project Year 2025					
Subtotal					
Project Year 2038					
Subtotal					

Note: (1) Assumes 3 tug assists per ship visit for all post-baseline years.

Table D1.2.Alt5-2010-PD23. Peak Daily Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - Berths 136-147 Terminal Project - Alternative 5.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Containership 3,000 - 5,000 TEU					
Containership < 3,000 TEU					
Subtotal					
Project Year 2007					
Subtotal (1)					
Project Year 2010					
Subtotal	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
Project Year 2025					
Subtotal (1)					
Project Year 2038					
Subtotal (1)					

Note: (1) Assumes 3 tug assists per ship visit for all post-baseline years.

Table D1.2.Alt5-2010-PD24. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths Terminal Project Alternative 5 - Vessels that Comply with VSRP + Slide Valves

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.03	0.08	0.76	0.38	0.05
Containerships < 3,000 TEU					
Subtotal	**0.03**	**0.08**	**0.76**	**0.38**	**0.05**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.01	0.12	0.66	0.04	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.12**	**0.66**	**0.04**	**0.01**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.01	0.12	0.66	0.04	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.12**	**0.66**	**0.04**	**0.01**

Notes: (1) Assumes 25/50/95% VSRP compliance rates for years 2003/2007/post-2007.

(2) Fuel types assumed for each project year identified in Table D3-A1.1

Table D1.2.Alt5-2010-PD25. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths Terminal Project Alternative 5 - Non-Compliant Vessels within VSRP + Slide Valves.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**-**	**-**	**-**	**-**	**-**
Project Year 2010					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**-**	**-**	**-**	**-**	**-**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-
Subtotal	**-**	**-**	**-**	**-**	**-**

Note: (1) Assumes 75/50/05% VSRP non-compliance rates for years 2003/2007/post-2007.

(2) Fuel types assumed for each project year identified in Table D3-A1.1

Table D1.2.Alt5-2010-PD26. Peak Daily Cargo Vessel Emissions within the POLA Precautionary Area - Berths 136-147 Terminal Project - Alternative 5 + Slide Valves.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.02	0.18	0.08	0.01
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.02**	**0.18**	**0.08**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.03	0.16	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.03**	**0.16**	**0.01**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.03	0.16	0.01	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.03**	**0.16**	**0.01**	**0.00**

Table D1.2.Alt5-2010-PD27. Peak Daily Cargo Vessel Emissions for Transit within the POLA Breakwater - Berths 136-147 Terminal Project - Alternative 5 + Slide Valves.

	Tons Per Year				
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.02	0.09	0.02	0.01
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.02**	**0.09**	**0.02**	**0.01**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.01	0.03	0.10	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.03**	**0.10**	**0.00**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.01	0.03	0.10	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.03**	**0.10**	**0.00**	**0.00**

Table D1.2.Alt5-2010-PD28. Peak Daily Cargo Vessel Emissions for Docking Activities - Berths 136-147 Terminal Project - Alternative 5 + Slide Valves.

Project Scenario/Vessel Type	*Tons Per Year*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Project Year 2010					
Containerships 8,000 - 9,000 TEU					
Containerships 5,000 - 6,000 TEU					
Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00
Containerships < 3,000 TEU					
Subtotal	**0.01**	**0.00**	**0.03**	**0.00**	**0.00**
Project Year 2025					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.03	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.03**	**0.00**	**0.00**
Project Year 2038					
Containerships 8,000 - 9,000 TEU	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.03	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-
Containerships < 3,000 TEU					
Subtotal	**0.00**	**0.01**	**0.03**	**0.00**	**0.00**

Table D1.2.Alt5-2010-PD29. Peak Daily Vessel Emissions - Berths 136-147 Terminal Project - Alternative 5 (Tons).

Project Scenario/Emission Source	*Tons per Peak Day*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Ships - Fairway Transit (1)	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-
Ships - Hoteling Aux. Sources	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2007					
Ships - Fairway Transit (1)	0.03	0.08	1.04	0.62	0.09
Ships - Precautionary Area Transit (1)	0.01	0.02	0.17	0.12	0.01
Ships - Harbor Transit (1)	0.01	0.01	0.10	0.06	0.01
Ships - Docking (1)	0.00	0.00	0.03	0.01	0.00
Ships - Hoteling Aux. Sources	0.04	0.13	1.39	1.23	0.12
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
Subtotal	**0.09**	**0.25**	**2.74**	**2.03**	**0.23**
Project Year 2010					
Ships - Fairway Transit (1)	0.03	0.09	0.87	0.44	0.06
Ships - Precautionary Area Transit (1)	0.01	0.03	0.24	0.13	0.02
Ships - Harbor Transit (1)	0.02	0.03	0.19	0.08	0.02
Ships - Docking (1)	0.01	0.01	0.05	0.02	0.00
Ships - Hoteling Aux. Sources	0.02	0.09	0.87	0.82	0.07
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.07	0.00	0.00
Subtotal	**0.09**	**0.25**	**2.29**	**1.49**	**0.17**

Table D1.2.Alt5-2010-PD30. Peak Daily Vessel Emissions - Berths 136-147 Terminal Project - Alternative 5 (Pounds)

Project Scenario/Emission Source	*Pounds Per Peak Day*				
	ROG	*CO*	*NOx*	*SOx*	*PM10*
Year 2003 Baseline					
Ships - Fairway Transit (1)	-	-	-	-	-
Ships - Precautionary Area Transit (1)	-	-	-	-	-
Ships - Harbor Transit (1)	-	-	-	-	-
Ships - Docking (1)	-	-	-	-	-
Ships - Hoteling Aux. Sources	-	-	-	-	-
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
Subtotal	-	-	-	-	-
Project Year 2007					
Ships - Fairway Transit (1)	68	160	2,076	1,230	174
Ships - Precautionary Area Transit (1)	13	31	350	231	30
Ships - Harbor Transit (1)	22	28	205	110	21
Ships - Docking (1)	8	8	57	27	6
Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
Subtotal	**188**	**493**	**5,477**	**4,066**	**466**
Project Year 2010					
Ships - Fairway Transit (1)	64	171	1,738	874	121
Ships - Precautionary Area Transit (1)	23	57	489	263	36
Ships - Harbor Transit (1)	34	52	372	164	32
Ships - Docking (1)	12	14	103	40	9
Ships - Hoteling Aux. Sources	49	187	1,738	1,649	134
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6
Subtotal	**186**	**505**	**4,580**	**2,990**	**338**

Table D1.2.Alt5-2010-PD31. Ship Visit and Throughput Data - Berths 136-147 Terminal Project - Alternative 5.

Project Scenario/Ship Type	*Peak Daily Ship Visits*	*ax TEU Move Peak Day (1)*	*Peak Daily TEU Moves*	*Hoteling Time/ Visit (Hours) (2)*
Baseline - Year 2003				
Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
Containerships < 3,000 TEU	1	2,992	2,992	24.0
Subtotal	**2**		**5,984**	
Project Year 2007				
Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0
Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
Containerships < 3,000 TEU		2,992		
Subtotal	**2**		**6,732**	
Project Year 2010				
Containerships 8,000 - 9,000 TEU		3,740		
Containerships 5,000 - 6,000 TEU	1	2,992	2,992	24.0
Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
Containerships < 3,000 TEU				
Subtotal	**2**		**6,919**	
Project Year 2025				
Containerships 8,000 - 9,000 TEU		5,890		
Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
Containerships < 3,000 TEU	1	3,927	1,963	24.0
Subtotal	**3**		**10,799**	
Project Year 2038				
Containerships 8,000 - 9,000 TEU		5,890		
Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
Containerships < 3,000 TEU	1	3,927	1,963	24.0
Subtotal	**3**		**10,799**	

Notes: (1) Assumes that 4 cranes would service <3,000 and 3-5,000 TEU vessels @ 1600 lifts/day = 2992 TEUs/day, 5 cranes would service 5-6,000 TEU vessels @ 2000 lifts/day = 3740 TEUs/day, and 6 cranes would service 8-9,000 TEU vessels @ 2400 lifts/day = 4488 TEUs/day (TraPac 2006) during 16 hours of service. Beginning in year 2015, crane service time increases to 21 hours/day and 4-, 5-, and 6- crane production = 3,927, 4,909, and 5,890 TEUs/day.

Table D1.2.Alt5-2010-PD32. ADT Estimates - Berths 136-147 Alt 5

Alternative/Project Year	*Truck Trips*		
	Annual	*ADT*	*Peak Daily (1)*
2003 - Baseline	1,197,589	3,281	4,492
2007	1,513,063	4,145	5,675
2010	1,232,606	3,377	4,623
2025	1,200,205	3,288	4,502
2038	1,200,205	3,288	4,502

(1) = Peak Daily trips/ 266.6 days.

Table D1.2.Alt5-2010-PD33. On-Road Truck Peak Daily Operational Data for the Berths 136-147 Terminal Project - Alternative 5

Activity/Project Scenario	*Idling Time/ Trip (Hrs) (1)*	*Miles/ Trip (2)*	*Peak Daily Trips*	*Idling Hrs/ Day*	*Miles/ Day*	*TEUs/ Peak Day*
On-Terminal						
Year 2003 - Baseline	0.56	1.02	4,492	2,516	4,587	8,310
Year 2007	0.25	1.02	5,675	1,419	5,796	10,499
Year 2010	0.25	0.81	4,623	1,156	3,725	8,553
Year 2025	0.25	0.81	4,502	1,125	3,627	8,329
Year 2038	0.25	0.81	4,502	1,125	3,627	8,329
Off-Terminal						
Year 2003 - Baseline	0.30	32.3	4,492	1,348	145,162	
Year 2007	0.30	32.3	5,675	1,703	183,401	
Year 2010	0.30	40.6	4,623	1,387	187,572	
Year 2025	0.30	49.4	4,502	1,351	222,205	
Year 2038	0.30	49.4	4,502	1,351	222,205	

Notes: (1) 2003 on-terminal durations from PEI. Post-2003 on-terminal durations from TraPac (TraPac 2006).

(2) On-terminal mileage/trip based upon current/proposed terminal gate systems. Off-terminal miles/trip from data presented in Table D1.2.PP-Mit-PD34.

Table D1.2.Alt5-2010-PD34. Peak Daily Truck Emissions for the Berths 136-147 Terminal Project - Alternative 5

	Pounds per Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal (1)						
Year 2003 - Idling	97	228	535	3	16	15
Year 2003 - Driving	106	241	386	3	39	36
Subtotal - Year 2003	204	469	921	6	55	51
Year 2007 - Idling	33	108	368	0	4	4
Year 2007 - Driving	102	206	399	0	29	27
Subtotal - Year 2007	135	314	766	1	33	31
Year 2010 - Idling	19	78	324	0	1	1
Year 2010 - Driving	20	41	88	0	4	3
Subtotal - Year 2010	38	118	412	0	5	4
Year 2025 - Idling	18	75	317	0	0	0
Year 2025 - Driving	9	20	33	0	1	1
Subtotal - Year 2025	27	95	350	0	1	1
Year 2038 - Idling	18	77	317	0	0	0
Year 2038 - Driving	9	20	33	0	1	1
Subtotal - Year 2038	27	97	350	0	1	1
Off-Terminal						
Year 2003 - Idling	52	122	287	2	8	8
Year 2003 - Driving	876	3,480	7,918	53	524	482
Subtotal - Year 2003	929	3,602	8,205	55	533	490
Year 2007 - Idling	40	129	441	0	5	4
Year 2007 - Driving	782	2,622	8,128	8	320	294
Subtotal - Year 2007	821	2,752	8,569	8	324	298
Year 2010 - Idling	23	93	389	0	1	1
Year 2010 - Driving	261	892	2,644	8	98	90
Subtotal - Year 2010	284	985	3,033	8	99	91
Year 2025 - Idling	21	90	381	0	0	0
Year 2025 - Driving	159	547	1,114	10	34	31
Subtotal - Year 2025	180	637	1,495	10	34	31
Year 2038 - Idling	21	93	381	0	0	0
Year 2038 - Driving	164	539	1,136	10	31	29
Subtotal - Year 2038	186	632	1,517	10	32	29
Year 2003	1,132	4,071	9,126	61	588	541
Year 2007	956	3,065	9,336	9	358	329
Year 2010	322	1,104	3,445	9	103	95
Year 2025	207	731	1,845	10	35	32
Year 2038	213	729	1,866	11	32	30

Notes: (1) On-terminal driving emissions calculated with 10 mph emission factors.

Table D1.2.Alt5-2010-PD35. Road Dust Emissions for the Berths 136-147 Terminal Project - Alternative 5

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.32	13.91
Year 2007	104.01	17.58
Year 2010	66.84	11.30
Year 2025	65.08	11.00
Year 2038	65.08	11.00
Off-Terminal		
Year 2003 - Baseline	114.80	19.40
Year 2007	145.05	24.51
Year 2010	148.35	25.07
Year 2025	175.74	29.70
Year 2038	175.74	29.70
Combined On/Off-Terminal		
Year 2003 - Baseline	197.13	33.31
Year 2007	249.05	42.09
Year 2010	215.19	36.37
Year 2025	240.82	40.70
Year 2038	240.82	40.70

Notes: (1) 47.05 % freeway travel and 52.95% surface street travel

Table D1.2.Alt5-2010-PD36. Brake and Tire Wear Emissions for the Berths 136-147 Terminal Project - Alternative 5

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	0.51	0.22
Year 2007	0.64	0.27
Year 2010	0.41	0.18
Year 2025	0.40	0.17
Year 2038	0.40	0.17
Off-Terminal		
Year 2003 - Baseline	16.00	6.86
Year 2007	20.22	8.67
Year 2010	20.68	8.87
Year 2025	24.49	10.51
Year 2038	24.49	10.51
Combined On/Off-Terminal		
Year 2003 - Baseline	16.51	7.08
Year 2007	20.85	8.95
Year 2010	21.09	9.05
Year 2025	24.89	10.68
Year 2038	24.89	10.68

Table D1.2.Alt5-2010-PD37. Total Non-Combustive Truck Generated PM Emissions for the Berths 136-147 Terminal Project - Alternative 5

Activity	*Daily Emissions (Pounds)*	
	PM10	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.83	14.13
Year 2007	104.65	17.85
Year 2010	67.25	11.47
Year 2025	65.48	11.17
Year 2038	65.48	11.17
Off-Terminal		
Year 2003 - Baseline	130.81	26.27
Year 2007	165.26	33.19
Year 2010	169.02	33.94
Year 2025	200.23	40.21
Year 2038	200.23	40.21
Combined On/Off-Terminal		
Year 2003 - Baseline	214	40
Year 2007	270	51
Year 2010	236	45

Table D1.2.Alt5-2010-PD38. Mitigated Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project Year 2010 - Alternative 5.

	Tons				
ICTF/Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Berths 136-147/Outbound					
Hostler	0.00	0.01	0.02	0.00	0.00
Top Picks	0.00	0.00	0.01	0.00	0.00
Line Haul Locomotive - Road Haul	0.01	0.03	0.14	0.00	0.00
Line Haul Locomotive - Notch 1	0.00	0.00	0.00	0.00	0.00
Yard Locomotive - Switching	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.04	0.18	0.00	0.01
Berths 136-147/Inbound					
Hostler	0.00	0.00	0.01	0.00	0.00
Top Picks	0.00	0.00	0.00	0.00	0.00
Line Haul Locomotive - Road Haul	0.01	0.03	0.14	0.00	0.00
Line Haul Locomotive - Notch 1	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.03	0.16	0.00	0.00
Carson or LA Railyards/Outbound					
Hostler	0.00	0.01	0.02	0.00	0.00
Top Picks	0.00	0.00	0.01	0.00	0.00
Line Haul Locomotive - Road Haul	0.01	0.02	0.13	0.00	0.00
Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00
Yard Locomotive - Switching	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.04	0.17	0.00	0.01
Carson or LA Railyards/Inbound					
Hostler	0.00	0.00	0.01	0.00	0.00
Top Picks	0.00	0.00	0.00	0.00	0.00
Line Haul Locomotive - Road Haul	0.01	0.02	0.13	0.00	0.00
Line Haul Locomotive - Notch 1	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.03	0.15	0.00	0.00
Total Tons Per Year	0.05	0.14	0.65	0.01	0.02

Table D1.2.Alt5-2010-PD39. Summary of Peak Daily Train and Rail Yard Cargo Handling Equipment Mitigated Emissions - Berths 136-147 Terminal Project - Alternative 5.

	Tons				
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Baseline Year 2003					
ICTF Equipment	0.01	0.03	0.10	0.00	0.01
Trains	0.05	0.10	0.87	0.06	0.03
Subtotal	0.06	0.14	0.97	0.06	0.03
Project Year 2007					
ICTF Equipment	0.01	0.03	0.10	0.00	0.00
Trains	0.04	0.10	0.62	0.06	0.02
Subtotal	0.05	0.14	0.72	0.06	0.03
Project Year 2010					
ICTF Equipment	0.01	0.03	0.07	0.00	0.00
Trains	0.04	0.11	0.59	0.01	0.02
Subtotal	0.05	0.14	0.65	0.01	0.02

Table D1.2.Alt5-2010-PD40. Peak Daily Train Trips - Berths 136-147
Terminal Project - Alternative 5

Project Scenario/Rail Yard	*Peak Daily Round Trips*
Year 2003 Baseline	
To/from Berths 136-147 ICTF	-
To/from Carson/LA Rail Yards	2
Year 2007	
To/from Berths 136-147 ICTF	-
To/from Carson/LA Rail Yards	2
Year 2010	
To/from Berths 136-147 ICTF	1
To/from Carson/LA Rail Yards	1
Year 2025	
To/from Berths 136-147 ICTF	2
To/from Carson/LA Rail Yards	1
Year 2038	
To/from Berths 136-147 ICTF	2
To/from Carson/LA Rail Yards	1

Table D1.2.Alt5-2010-PD41. Peak Day Terminal Yard TEU Throughput - Berths 136-147 Terminal Project - Alt 5

	Peak Daily TEUs				*Total Peak Daily/*
Project Year	*Wharf*	*Gate*	*Total*	*Annual TEUs*	*Annual TEUs*
2003	5,984	8,310	14,294	891,976	0.016
2007	6,732	10,499	17,231	1,091,200	0.016
2010	6,919	8,553	15,472	1,196,705	0.013
2025	10,799	8,329	19,128	1,697,000	0.011
2038	10,799	8,329	19,128	1,697,000	0.011

Table D1.2.Alt5-2010-PD42. Terminal Equipment Annual Mitigated Emissions - Berths 136-147 Terminal Proposed Project

Project Scenario/Equipment Horsepowe	Peak Daily Hp-Hrs	Annual Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2003							
Terminal Equipment - 121-175 Hp	10,493,875	9.61	39.16	105.82	1.19	6.03	5.55
Terminal Equipment - 176-250 Hp	12,581,479	6.11	18.34	94.22	1.42	3.37	3.10
Terminal Equipment - 250-500 Hp	2,417,350	1.18	3.92	18.61	0.27	0.58	0.53
Subtotal	25,492,704	16.89	61.43	218.65	2.89	9.98	9.18
Project Year 2007							
Terminal Equipment - 121-175 Hp	12,837,231	11.23	49.38	118.97	0.06	5.53	5.09
Terminal Equipment - 176-250 Hp	15,391,012	9.67	27.15	120.01	0.07	4.91	4.52
Terminal Equipment - 250-500 Hp	2,957,161	1.31	4.56	20.15	0.01	0.71	0.66
Subtotal	31,185,404	22.21	81.10	259.13	0.15	11.15	10.26
Project Year 2010							
Terminal Equipment - 121-175 Hp	14,078,336	8.68	52.33	87.27	0.07	4.07	3.74
Terminal Equipment - 176-250 Hp	16,879,017	8.54	27.12	91.13	0.08	3.72	3.42
Terminal Equipment - 250-500 Hp	3,243,060	1.34	5.07	15.52	0.02	0.61	0.56
Subtotal	34,200,412	18.56	84.53	193.91	0.17	8.40	7.73

Table D1.2.Alt5-2010-PD43. Terminal Equipment Peak Daily Emissions - Berths 136-147 Terminal Project - Alternative 5

		Peak Daily Emissions (Tons)					
Project Scenario/Equipment Horsepower		*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2003							
Terminal Equipment - 121-175 Hp		0.15	0.63	1.70	0.02	0.10	0.09
Terminal Equipment - 176-250 Hp		0.10	0.29	1.51	0.02	0.05	0.05
Terminal Equipment - 250-500 Hp		0.02	0.06	0.30	0.00	0.01	0.01
Subtotal		0.27	0.98	3.50	0.05	0.16	0.15
Project Year 2007							
Terminal Equipment - 121-175 Hp		0.18	0.78	1.88	0.00	0.09	0.08
Terminal Equipment - 176-250 Hp		0.15	0.43	1.90	0.00	0.08	0.07
Terminal Equipment - 250-500 Hp		0.02	0.07	0.32	0.00	0.01	0.01
Subtotal		0.35	1.28	4.09	0.00	0.18	0.16
Project Year 2010							
Terminal Equipment - 121-175 Hp		0.11	0.68	1.13	0.00	0.05	0.05
Terminal Equipment - 176-250 Hp		0.11	0.35	1.18	0.00	0.05	0.04
Terminal Equipment - 250-500 Hp		0.02	0.07	0.20	0.00	0.01	0.01
Subtotal		0.24	1.09	2.51	0.00	0.11	0.10

Table D1.2.Alt5-2010-PD44. On-Road Truck Trip Vehicle Miles Travelled - Berths 136-147 Terminal Project - Alternative 5.

Year	*B136-149 Throughput (TEUs)*	*B136-149 ICTF Thruput (TEUs) (1)*	*TEUs to Offsite Railyard (2)*	*TEUs to Local Deilveries*	*Truck Trips to Offsite Railyard (2)*	*Local Truck Trips (3)*	*Truck Miles to Offsite Railyard (4)*	*Local Truck Trip Miles (5)*	*Composite VMT/ Truck Trip*
Baseline - Year 2003	891,976	-	445,988	445,988	598,795	598,795	9.6	55.0	32.3
Year 2007	1,091,200	-	545,600	545,600	756,532	756,532	9.6	55.0	32.3
Year 2010	1,196,705	188,339	320,717	687,649	392,038	840,568	9.6	55.0	40.6
Year 2025	1,697,000	700,810	123,881	872,309	149,251	1,050,954	9.6	55.0	49.4
Year 2038	1,697,000	700,810	123,881	872,309	149,251	1,050,954	9.6	55.0	49.4

(1) Peak Daily throughput estimates from Rail Master Plan.

(2) Based on 50/50/26.8/6.7/7.3% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(3) Based on 50/50/61.4/62.1/63.4% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(4) Assumes an even split to Carson ICTF (4.5 miles) and LA railyards (18 miles) = 11.3 miles/trip

(5) Average local trip length with origin/destination at the POLA.

Table D1.2.Alt5-2010-PD46. Peak Daily Operational Emissions - Berths 136-147 Terminal Project - Alternative 5 (Tons)

	Tons per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2007						
Ships - Fairway Transit (1)	0.03	0.08	1.04	0.62	0.09	0.08
Ships - Precautionary Area Transit (1)	0.01	0.02	0.17	0.12	0.01	0.01
Ships - Harbor Transit (1)	0.01	0.01	0.10	0.06	0.01	0.01
Ships - Docking (1)	0.00	0.00	0.03	0.01	0.00	0.00
Ships - Hoteling Aux. Sources	0.04	0.13	1.39	1.23	0.12	0.11
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Terminal Equipment	0.35	1.28	4.09	0.00	0.18	0.16
On-road Trucks	0.48	1.53	4.67	0.00	0.31	0.19
Trains	0.04	0.10	0.62	0.06	0.02	0.02
Railyard Equipment	0.01	0.03	0.10	0.00	0.00	0.00
Commuting	0.01	0.07	0.01	0.00	0.01	0.01
Pier A Railyard	0.00	0.00	0.03	0.00	0.00	0.00
Project Year 2007 Total	0.98	3.27	12.25	2.10	0.76	0.60
Project Year 2010						
Ships - Fairway Transit (1)	0.03	0.09	0.87	0.44	0.06	0.06
Ships - Precautionary Area Transit (1)	0.01	0.03	0.24	0.13	0.02	0.02
Ships - Harbor Transit (1)	0.02	0.03	0.19	0.08	0.02	0.01
Ships - Docking (1)	0.01	0.01	0.05	0.02	0.00	0.00
Ships - Hoteling Aux. Sources	0.02	0.09	0.87	0.82	0.07	0.06
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.07	0.00	0.00	0.00
Terminal Equipment	0.24	1.09	2.51	0.00	0.11	0.10
On-road Trucks	0.16	0.55	1.72	0.00	0.17	0.07
Trains	0.04	0.11	0.59	0.01	0.02	0.01
Railyard Equipment	0.01	0.03	0.07	0.00	0.00	0.00
Commuting	0.01	0.08	0.01	0.00	0.01	0.01
Pier A Railyard	0.00	0.00	0.02	0.00	0.00	0.00
Project Year 2010 Total	0.55	2.12	7.20	1.51	0.48	0.36

Table D1.2.Alt5-2010-PD47. Peak Daily Operational Emissions - Berths 136-147 Terminal Project - Alternative 5 (Pounds).

	Pounds Per Peak Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2007						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236	221
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Terminal Equipment	702	2,561	8,184	5	352	324
On-road Trucks	956	3,065	9,336	9	628	380
Trains	89	208	1,245	111	47	43
Railyard Equipment	17	67	193	0	9	8
Commuting	10	140	18	0	15	14
Pier A Railyard	4	7	54	1	1	1
Project Year 2007 Total	1,967	6,543	24,507	4,191	1,519	1,208
Net Change from CEQA Baseline Year 2007	(10)	(392)	1,497	341	(88)	(121)
Project Year 2010						
Ships - Fairway Transit (1)	64	171	1,738	874	121	114
Ships - Precautionary Area Transit (1)	23	57	489	263	36	34
Ships - Harbor Transit (1)	34	52	372	164	32	30
Ships - Docking (1)	12	14	103	40	9	9
Ships - Hoteling Aux. Sources	49	187	1,738	1,649	134	126
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6	5
Terminal Equipment	480	2,186	5,014	4	217	200
On-road Trucks	322	1,104	3,445	9	340	141
Trains	85	215	1,170	26	33	30
Railyard Equipment	12	67	131	0	6	5
Commuting	12	161	21	0	22	21
Pier A Railyard	2	9	30	0	0	0
Project Year 2010 Total	1,100	4,247	14,392	3,029	956	713
Net Change from CEQA Baseline Year 2010	(877)	(2,688)	(8,618)	(821)	(650)	(615)

	AO	AP	AQ	AR	AS	AT
1	**Table D1.2.NFAB-2010-PD1. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths**					
2	**Terminal Project NEPA Baseline - Vessels that Comply with Proposed VSRP.**					
3		*Tons Per Year*				
4	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
5	*Year 2003 Baseline*					
6	Containership 3,000 - 5,000 TEU					
7	Containership < 3,000 TEU					
8	**Subtotal**	-	-	-	-	-
9	*Project Year 2007*					
10	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
11	Containerships 3,000 - 5,000 TEU					
12	Containerships < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
13	**Subtotal**	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
14	*Project Year 2010*					
15	Containerships 8,000 - 9,000 TEU					
16	Containerships 5,000 - 6,000 TEU					
17	Containerships 3,000 - 5,000 TEU	0.04	0.08	0.82	0.38	0.06
18	Containerships < 3,000 TEU					
19	**Subtotal**	**0.04**	**0.08**	**0.82**	**0.38**	**0.06**
20	*Project Year 2025*					
21	Containerships 8,000 - 9,000 TEU					
22	Containerships 5,000 - 6,000 TEU	0.06	0.12	0.93	0.04	0.03
23	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
24	Containerships < 3,000 TEU					
25	**Subtotal**	**0.06**	**0.12**	**0.93**	**0.04**	**0.03**
26	*Project Year 2038*					
27	Containerships 8,000 - 9,000 TEU					
28	Containerships 5,000 - 6,000 TEU	0.06	0.12	0.93	0.04	0.03
29	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
30	Containerships < 3,000 TEU					
31	**Subtotal**	**0.06**	**0.12**	**0.93**	**0.04**	**0.03**
32	Note: (1) Assumes 100% VSRP compliance rates for years 2007 and thereafter.					
33	(2) Fuel types assumed for each project year identified in Table D3-A1.1					

	AO	AP	AQ	AR	AS	AT
36	**Table D1.2.NFAB-2010-PD2. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths**					
37	**Terminal Project NEPA Baseline - Non-Compliant Vessels with the Proposed VSRP.**					
38		*Tons Per Year*				
39	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
40	*Year 2003 Baseline*					
41	Containership 3,000 - 5,000 TEU					
42	Containership < 3,000 TEU					
43	**Subtotal**	-	-	-	-	-
44	*Project Year 2007*					
45	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
46	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
47	Containerships < 3,000 TEU	-	-	-	-	-
48	**Subtotal**	-	-	-	-	-
49	*Project Year 2010*					
50	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
51	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
52	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
53	Containerships < 3,000 TEU	-	-	-	-	-
54	**Subtotal**	-	-	-	-	-
55	*Project Year 2010*					
56	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
57	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
58	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
59	Containerships < 3,000 TEU	-	-	-	-	-
60	**Subtotal**	-	-	-	-	-
61	*Project Year 2038*					
62	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
63	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
64	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
65	Containerships < 3,000 TEU	-	-	-	-	-
66	**Subtotal**	-	-	-	-	-
67	Note: (1) Assumes 100% VSRP compliance rates for years 2007 and thereafter.					
68	(2) Without slide valves					
69						

	AO	AP	AQ	AR	AS	AT
71	**Table D1.2.NFAB-2010-PD3. Peak Daily Cargo Vessel Emissions within the POLA Precautionary**					
72	**Area - Berths 136-147 Terminal Project - NEPA Baseline.**					
73		*Tons Per Year*				
74	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
75	*Year 2003 Baseline*					
76	Containership 3,000 - 5,000 TEU					
77	Containership < 3,000 TEU					
78	**Subtotal**	-	-	-	-	-
79	*Project Year 2007*					
80	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
81	Containerships 3,000 - 5,000 TEU					
82	Containerships < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
83	**Subtotal**	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
84	*Project Year 2010*					
85	Containerships 8,000 - 9,000 TEU					
86	Containerships 5,000 - 6,000 TEU					
87	Containerships 3,000 - 5,000 TEU	0.01	0.02	0.19	0.08	0.02
88	Containerships < 3,000 TEU					
89	**Subtotal**	**0.01**	**0.02**	**0.19**	**0.08**	**0.02**
90	*Project Year 2025*					
91	Containerships 8,000 - 9,000 TEU					
92	Containerships 5,000 - 6,000 TEU	0.02	0.03	0.22	0.01	0.01
93	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
94	Containerships < 3,000 TEU					
95	**Subtotal**	**0.02**	**0.03**	**0.22**	**0.01**	**0.01**
96	*Project Year 2038*					
97	Containerships 8,000 - 9,000 TEU					
98	Containerships 5,000 - 6,000 TEU	0.02	0.03	0.22	0.01	0.01
99	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
100	Containerships < 3,000 TEU					
101	**Subtotal**	**0.02**	**0.03**	**0.22**	**0.01**	**0.01**
102	(2) Without slide valves					

	AO	AP	AQ	AR	AS	AT
104	**Table D1.2.NFAB-2010-PD4. Peak Daily Cargo Vessel Emissions for Transit within the POLA**					
105	**Breakwater - Berths 136-147 Terminal Project - NEPA Baseline.**					
106		*Tons Per Year*				
107	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
108	*Year 2003 Baseline*					
109	Containership 3,000 - 5,000 TEU					
110	Containership < 3,000 TEU					
111	**Subtotal**	**-**	**-**	**-**	**-**	**-**
112	*Project Year 2007*					
113	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
114	Containerships 3,000 - 5,000 TEU					
115	Containerships < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
116	**Subtotal**	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
117	*Project Year 2010*					
118	Containerships 8,000 - 9,000 TEU					
119	Containerships 5,000 - 6,000 TEU					
120	Containerships 3,000 - 5,000 TEU	0.02	0.02	0.10	0.02	0.01
121	Containerships < 3,000 TEU					
122	**Subtotal**	**0.02**	**0.02**	**0.10**	**0.02**	**0.01**
123	*Project Year 2025*					
124	Containerships 8,000 - 9,000 TEU					
125	Containerships 5,000 - 6,000 TEU	0.03	0.03	0.13	0.00	0.01
126	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
127	Containerships < 3,000 TEU					
128	**Subtotal**	**0.03**	**0.03**	**0.13**	**0.00**	**0.01**
129	*Project Year 2038*					
130	Containerships 8,000 - 9,000 TEU					
131	Containerships 5,000 - 6,000 TEU	0.03	0.03	0.13	0.00	0.01
132	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
133	Containerships < 3,000 TEU					
134	**Subtotal**	**0.03**	**0.03**	**0.13**	**0.00**	**0.01**

	AO	AP	AQ	AR	AS	AT
136	**Table D1.2.NFAB-2010-PD5. Peak Daily Cargo Vessel Emissions for Docking Activities -**					
137	**Berths 136-147 Terminal Project - NEPA Baseline.**					
138		*Tons Per Year*				
139	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
140	*Year 2003 Baseline*					
141	Containership 3,000 - 5,000 TEU					
142	Containership < 3,000 TEU					
143	**Subtotal**	-	-	-	-	-
144	*Project Year 2007*					
145	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
146	Containerships 3,000 - 5,000 TEU					
147	Containerships < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
148	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
149	*Project Year 2010*					
150	Containerships 8,000 - 9,000 TEU					
151	Containerships 5,000 - 6,000 TEU					
152	Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00
153	Containerships < 3,000 TEU					
154	**Subtotal**	**0.01**	**0.00**	**0.03**	**0.00**	**0.00**
155	*Project Year 2025*					
156	Containerships 8,000 - 9,000 TEU					
157	Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.00	0.00
158	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
159	Containerships < 3,000 TEU					
160	**Subtotal**	**0.01**	**0.01**	**0.04**	**0.00**	**0.00**
161	*Project Year 2038*					
162	Containerships 8,000 - 9,000 TEU					
163	Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.00	0.00
164	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
165	Containerships < 3,000 TEU					
166	**Subtotal**	**0.01**	**0.01**	**0.04**	**0.00**	**0.00**
167	(2) Without slide valves					
168						
169	**Table D1.2.NFAB-2010-PD6. Peak Daily Shifting Emissions for Cargo Vessels within the POLA**					
170	**Breakwater - Berths 136-147 Terminal Project - NEPA Baseline.**					
171		*Tons Per Year*				
172	*Project Scenario/Vessel Mode*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
173	*Year 2003 Baseline*					
174	Transit					
175	Docking					
176	**Subtotal**	-	-	-	-	-

	AO	AP	AQ	AR	AS	AT
179	**Table D1.2.NFAB-2010-PD7. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the**					
180	**Fairway Zone - Berths 136-147 Terminal Project NEPA Baseline - Vessels that Comply with VSRP.**					
181		*Tons Per Year (1)*				
182	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
183	*Year 2003 Baseline*					
184	Containership 3,000 - 5,000 TEU					
185	Containership < 3,000 TEU					
186	**Subtotal**	-	-	-	-	-
187	*Project Year 2007*					
188	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
189	Containerships 3,000 - 5,000 TEU					
190	Containerships < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
191	**Subtotal**	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
192	*Project Year 2010*					
193	Containerships 8,000 - 9,000 TEU					
194	Containerships 5,000 - 6,000 TEU					
195	Containerships 3,000 - 5,000 TEU	0.00	0.01	0.11	0.06	0.01
196	Containerships < 3,000 TEU					
197	**Subtotal**	**0.00**	**0.01**	**0.11**	**0.06**	**0.01**
198	*Project Year 2025*					
199	Containerships 8,000 - 9,000 TEU					
200	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.16	0.01	0.00
201	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
202	Containerships < 3,000 TEU					
203	**Subtotal**	**0.00**	**0.01**	**0.16**	**0.01**	**0.00**
204	*Project Year 2038*					
205	Containerships 8,000 - 9,000 TEU					
206	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.16	0.01	0.00
207	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
208	Containerships < 3,000 TEU					
209	**Subtotal**	**0.00**	**0.01**	**0.16**	**0.01**	**0.00**
210	Note: (1) Fuel types assumed for each project year identified in Table D3-A1.1					
211	Note: (1) Assumes 100% VSRP compliance rates for years 2007 and thereafter.					

	AO	AP	AQ	AR	AS	AT
214	**Table D1.2.NFAB-2010-PD8. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the I**					
215	**Zone - Berths 136-147 Terminal Project NEPA Baseline - Non-Compliant Vessels within VSRP.**					
216		*Tons Per Year (1)*				
217	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
218	*Year 2003 Baseline*					
219	Containership 3,000 - 5,000 TEU					
220	Containership < 3,000 TEU					
221	**Subtotal**	-	-	-	-	-
222	*Project Year 2007*					
223	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
224	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
225	Containerships < 3,000 TEU	-	-	-	-	-
226	**Subtotal**	-	-	-	-	-
227	*Project Year 2010*					
228	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
229	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
230	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
231	Containerships < 3,000 TEU	-	-	-	-	-
232	**Subtotal**	-	-	-	-	-
233	*Project Year 2010*					
234	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
235	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
236	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
237	Containerships < 3,000 TEU	-	-	-	-	-
238	**Subtotal**	-	-	-	-	-
239	*Project Year 2038*					
240	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
241	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
242	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
243	Containerships < 3,000 TEU	-	-	-	-	-
244	**Subtotal**	-	-	-	-	-
245	Note: (1) Assumes 100% VSRP compliance rates for years 2007 and thereafter.					
246	(2) Fuel types assumed for each project year identified in Table D3-A1.1					

	AO	AP	AQ	AR	AS	AT
249	**Table D1.2.NFAB-2010-PD9. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting**					
250	**the Precautionary Area - Berths 136-147 Terminal Project - NEPA Baseline.**					
251		*Tons Per Year (1)*				
252	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
253	*Year 2003 Baseline*					
254	Containership 3,000 - 5,000 TEU					
255	Containership < 3,000 TEU					
256	**Subtotal**	**-**	**-**	**-**	**-**	**-**
257	*Project Year 2007*					
258	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
259	Containerships 3,000 - 5,000 TEU					
260	Containerships < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
261	**Subtotal**	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
262	*Project Year 2010*					
263	Containerships 8,000 - 9,000 TEU					
264	Containerships 5,000 - 6,000 TEU					
265	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.06	0.03	0.00
266	Containerships < 3,000 TEU					
267	**Subtotal**	**0.00**	**0.00**	**0.06**	**0.03**	**0.00**
268	*Project Year 2025*					
269	Containerships 8,000 - 9,000 TEU					
270	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.01	0.00
271	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
272	Containerships < 3,000 TEU					
273	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.01**	**0.00**
274	*Project Year 2038*					
275	Containerships 8,000 - 9,000 TEU					
276	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.01	0.00
277	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
278	Containerships < 3,000 TEU					
279	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.01**	**0.00**
280	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					

	AO	AP	AQ	AR	AS	AT
282	**Table D1.2.NFAB-2010-PD10. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting**					
283	**within the POLA Breakwater - Berths 136-147 Terminal Project - NEPA Baseline.**					
284		*Tons Per Year (1)*				
285	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
286	*Year 2003 Baseline*					
287	Containership 3,000 - 5,000 TEU					
288	Containership < 3,000 TEU					
289	**Subtotal**	-	-	-	-	-
290	*Project Year 2007*					
291	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
292	Containerships 3,000 - 5,000 TEU					
293	Containerships < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
294	**Subtotal**	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
295	*Project Year 2010*					
296	Containerships 8,000 - 9,000 TEU					
297	Containerships 5,000 - 6,000 TEU					
298	Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.05	0.01
299	Containerships < 3,000 TEU					
300	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.05**	**0.01**
301	*Project Year 2025*					
302	Containerships 8,000 - 9,000 TEU					
303	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.01	0.00
304	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
305	Containerships < 3,000 TEU					
306	**Subtotal**	**0.00**	**0.01**	**0.14**	**0.01**	**0.00**
307	*Project Year 2038*					
308	Containerships 8,000 - 9,000 TEU					
309	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.01	0.00
310	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
311	Containerships < 3,000 TEU					
312	**Subtotal**	**0.00**	**0.01**	**0.14**	**0.01**	**0.00**
313	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					

	AO	AP	AQ	AR	AS	AT
315	**Table D1.2.NFAB-2010-PD11. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Docking withi**					
316	**the POLA Breakwater - Berths 136-147 Terminal Project - NEPA Baseline.**					
317		*Tons Per Year (1)*				
318	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
319	*Year 2003 Baseline*					
320	Containership 3,000 - 5,000 TEU					
321	Containership < 3,000 TEU					
322	**Subtotal**	-	-	-	-	-
323	*Project Year 2007*					
324	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
325	Containerships 3,000 - 5,000 TEU					
326	Containerships < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
327	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
328	*Project Year 2010*					
329	Containerships 8,000 - 9,000 TEU					
330	Containerships 5,000 - 6,000 TEU					
331	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.02	0.01	0.00
332	Containerships < 3,000 TEU					
333	**Subtotal**	**0.00**	**0.00**	**0.02**	**0.01**	**0.00**
334	*Project Year 2025*					
335	Containerships 8,000 - 9,000 TEU					
336	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.00	0.00
337	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
338	Containerships < 3,000 TEU					
339	**Subtotal**	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**
340	*Project Year 2038*					
341	Containerships 8,000 - 9,000 TEU					
342	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.00	0.00
343	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
344	Containerships < 3,000 TEU					
345	**Subtotal**	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**
346	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					

	AO	AP	AQ	AR	AS	AT
349	**Table D1.2.NFAB-2010-PD12. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Hoteling -**					
350	**Berths 136-147 Terminal Project - NEPA Baseline.**					
351		*Tons Per Year*				
352	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
353	*Year 2003 Baseline*					
354	Containership 3,000 - 5,000 TEU					
355	Containership < 3,000 TEU					
356	**Subtotal**	-	-	-	-	-
357	*Project Year 2007*					
358	Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
359	Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
360	Containerships < 3,000 TEU	-	-	-	-	-
361	**Subtotal**	**0.04**	**0.10**	**1.30**	**0.83**	**0.11**
362	*Project Year 2010*					
363	Containerships 8,000 - 9,000 TEU					
364	Containerships 5,000 - 6,000 TEU	0.01	0.03	0.43	0.24	0.03
365	Containerships 3,000 - 5,000 TEU	0.01	0.03	0.34	0.19	0.02
366	Containerships < 3,000 TEU					
367	**Subtotal**	**0.02**	**0.06**	**0.78**	**0.43**	**0.06**
368	*Project Year 2025*					
369	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
370	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
371	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
372	Containerships < 3,000 TEU	-	-	-	-	-
373	**Subtotal**	-	-	-	-	-
374	*Project Year 2038*					
375	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
376	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
377	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
378	Containerships < 3,000 TEU	-	-	-	-	-
379	**Subtotal**	-	-	-	-	-
380						
381	**Table D1.2.NFAB-2010-PD13. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Shifts -**					
382	**Berths 136-147 Terminal Project - NEPA Baseline.**					
383		*Tons Per Year*				
384	*Project Scenario/Vessel Mode*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
385	*Year 2003 Baseline*					
386	Transit					
387	Docking					
388	**Subtotal**	-	-	-	-	-

	AO	AP	AQ	AR	AS	AT
391	**Table D1.2.NFAB-2010-PD14. Peak Daily Auxiliary Generator Emissions for Shifted Cargo Vessels**					
392	**during Hoteling - Berths 136-147 Terminal Project - NEPA Baseline.**					
393		*Tons Per Year*				
394	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
395	*Year 2003 Baseline*					
396	Containership < 3,000 TEU					
397	**Subtotal**	-	-	-	-	-
398						
399						
400						
401	**Table D1.2.NFAB-2010-PD15. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the**					
402	**Fairway Zone - Berths 136-147 Terminal Project - NEPA Baseline - VSRP-Compliant.**					
403		*Tons Per Year (1)*				
404	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
405	*Year 2003 Baseline*					
406	Containership 3,000 - 5,000 TEU					
407	Containership < 3,000 TEU					
408	**Subtotal**	-	-	-	-	-
409	*Project Year 2007*					
410	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
411	Containerships 3,000 - 5,000 TEU					
412	Containerships < 3,000 TEU	-	-	-	-	-
413	**Subtotal**	-	-	-	-	-
414	*Project Year 2010*					
415	Containerships 8,000 - 9,000 TEU					
416	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
417	Containerships 3,000 - 5,000 TEU					
418	Containerships < 3,000 TEU					
419	**Subtotal**	-	-	-	-	-
420	*Project Year 2025*					
421	Containerships 8,000 - 9,000 TEU					
422	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
423	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
424	Containerships < 3,000 TEU					
425	**Subtotal**	-	-	-	-	-
426	*Project Year 2038*					
427	Containerships 8,000 - 9,000 TEU					
428	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
429	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
430	Containerships < 3,000 TEU					
431	**Subtotal**	-	-	-	-	-
432	Notes: (1) Assumes 25/50/95% VSRP compliance rates for years 2003/2007/post-2007.					
433	(2) Does not assume use of low-sulfur fuels.					

	AO	AP	AQ	AR	AS	AT
435	**Table D1.2.NFAB-2010-PD16. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the**					
436	**Fairway Zone - Berths 136-147 Terminal Project - NEPA Baseline - VSRP-Non-Compliant.**					
437		*Tons Per Year*				
438	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
439	*Year 2003 Baseline*					
440	Containership 3,000 - 5,000 TEU					
441	Containership < 3,000 TEU					
442	**Subtotal**	-	-	-	-	-
443	*Project Year 2007*					
444	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
445	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
446	Containerships < 3,000 TEU	-	-	-	-	-
447	**Subtotal**	-	-	-	-	-
448	*Project Year 2010*					
449	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
450	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
451	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
452	Containerships < 3,000 TEU	-	-	-	-	-
453	**Subtotal**	-	-	-	-	-
454	*Project Year 2010*					
455	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
456	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
457	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
458	Containerships < 3,000 TEU	-	-	-	-	-
459	**Subtotal**	-	-	-	-	-
460	*Project Year 2038*					
461	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
462	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
463	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
464	Containerships < 3,000 TEU	-	-	-	-	-
465	**Subtotal**	-	-	-	-	-
466	Note: (1) Assumes 75/50/05% VSRP non-compliance rates for years 2003/2007/post-2007.					
467	(2) Does not assume use of low-sulfur fuels.					

	AO	AP	AQ	AR	AS	AT
469	**Table D1.2.NFAB-2010-PD17. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting**					
470	**the Precautionary Area - Berths 136-147 Terminal Project - NEPA Baseline.**					
471		*Tons Per Year*				
472	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
473	*Year 2003 Baseline*					
474	Containership 3,000 - 5,000 TEU					
475	Containership < 3,000 TEU					
476	**Subtotal**	-	-	-	-	-
477	*Project Year 2007*					
478	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
479	Containerships 3,000 - 5,000 TEU					
480	Containerships < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
481	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
482	*Project Year 2010*					
483	Containerships 8,000 - 9,000 TEU					
484	Containerships 5,000 - 6,000 TEU					
485	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.02	0.00
486	Containerships < 3,000 TEU					
487	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
488	*Project Year 2025*					
489	Containerships 8,000 - 9,000 TEU					
490	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
491	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
492	Containerships < 3,000 TEU					
493	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
494	*Project Year 2038*					
495	Containerships 8,000 - 9,000 TEU					
496	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
497	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
498	Containerships < 3,000 TEU					
499	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**

	AO	AP	AQ	AR	AS	AT
501	**Table D1.2.NFAB-2010-PD18. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting within**					
502	**the POLA Breakwater - Berths 136-147 Terminal Project - NEPA Baseline.**					
503		*Tons Per Year*				
504	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
505	*Year 2003 Baseline*					
506	Containership 3,000 - 5,000 TEU					
507	Containership < 3,000 TEU					
508	**Subtotal**	-	-	-	-	-
509	*Project Year 2007*					
510	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
511	Containerships 3,000 - 5,000 TEU					
512	Containerships < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
513	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
514	*Project Year 2010*					
515	Containerships 8,000 - 9,000 TEU					
516	Containerships 5,000 - 6,000 TEU					
517	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.01	0.00
518	Containerships < 3,000 TEU					
519	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
520	*Project Year 2025*					
521	Containerships 8,000 - 9,000 TEU					
522	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
523	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
524	Containerships < 3,000 TEU					
525	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
526	*Project Year 2038*					
527	Containerships 8,000 - 9,000 TEU					
528	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
529	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
530	Containerships < 3,000 TEU					
531	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**

	AO	AP	AQ	AR	AS	AT
533	**Table D1.2.NFAB-2010-PD19. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Docking within th**					
534	**POLA Breakwater - Berths 136-147 Terminal Project - NEPA Baseline.**					
535		*Tons Per Year*				
536	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
537	*Year 2003 Baseline*					
538	Containership 3,000 - 5,000 TEU					
539	Containership < 3,000 TEU					
540	**Subtotal**	-	-	-	-	-
541	*Project Year 2007*					
542	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
543	Containerships 3,000 - 5,000 TEU					
544	Containerships < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
545	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
546	*Project Year 2010*					
547	Containerships 8,000 - 9,000 TEU					
548	Containerships 5,000 - 6,000 TEU					
549	Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.00	0.00
550	Containerships < 3,000 TEU					
551	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
552	*Project Year 2025*					
553	Containerships 8,000 - 9,000 TEU					
554	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
555	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
556	Containerships < 3,000 TEU					
557	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
558	*Project Year 2038*					
559	Containerships 8,000 - 9,000 TEU					
560	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
561	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
562	Containerships < 3,000 TEU					
563	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
564	(2) Does not assume use of low-sulfur fuels.					

	AO	AP	AQ	AR	AS	AT
567	**Table D1.2.NFAB-2010-PD20. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Hoteling -**					
568	**Berths 136-147 Terminal Project - NEPA Baseline.**					
569		*Tons Per Year*				
570	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
571	*Year 2003 Baseline*					
572	Containership 3,000 - 5,000 TEU					
573	Containership < 3,000 TEU					
574	**Subtotal**	-	-	-	-	-
575	*Project Year 2007*					
576	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
577	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
578	Containerships < 3,000 TEU	-	-	-	-	-
579	**Subtotal**	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
580	*Project Year 2010*					
581	Containerships 8,000 - 9,000 TEU					
582	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
583	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
584	Containerships < 3,000 TEU					
585	**Subtotal**	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
586	*Project Year 2025*					
587	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
588	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
589	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
590	Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
591	**Subtotal**	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**
592	*Project Year 2038*					
593	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
594	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
595	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
596	Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
597	**Subtotal**	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**
598	(2) Does not assume use of low-sulfur fuels.					
599	**Table D1.2.NFAB-2010-PD21. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Shifts -**					
600	**Berths 136-147 Terminal Project - NEPA Baseline.**					
601		*Tons Per Year*				
602	*Project Scenario/Vessel Mode*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
603	*Year 2003 Baseline*					
604	Transit					
605	Docking					
606	Hoteling					
607	**Subtotal**	-	-	-	-	-

	AO	AP	AQ	AR	AS	AT
610	**Table D1.2.NFAB-2010-PD22. Peak Daily Tugboat Emissions for Cargo Vessel Assists -**					
611	**Berths 136-147 Terminal Project - NEPA Baseline.**					
612		*Tons Per Year (1)*				
613	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
614	*Year 2003 Baseline*					
615	Containership 3,000 - 5,000 TEU					
616	Containership < 3,000 TEU					
617	**Subtotal**					
618	*Project Year 2007*					
619	**Subtotal**					
620	*Project Year 2010*					
621	**Subtotal**	0.00	0.01	0.06	0.00	0.00
622	*Project Year 2025*					
623	**Subtotal**					
624	*Project Year 2038*					
625	**Subtotal**					
626	Note: (1) Assumes 3 tug assists per ship visit for all post-baseline years.					
627						
628						
629	**Table D1.2.NFAB-2010-PD23. Peak Daily Auxiliary Generator Emissions for Tugboats during Cargo**					
630	**Vessel Assists - Berths 136-147 Terminal Project - NEPA Baseline.**					
631		*Tons Per Year*				
632	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
633	*Year 2003 Baseline*					
634	Containership 3,000 - 5,000 TEU					
635	Containership < 3,000 TEU					
636	**Subtotal**					
637	*Project Year 2007*					
638	**Subtotal (1)**					
639	*Project Year 2010*					
640	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
641	*Project Year 2025*					
642	**Subtotal (1)**					
643	*Project Year 2038*					
644	**Subtotal (1)**					
645	Note: (1) Assumes 3 tug assists per ship visit for all post-baseline years.					

	AO	AP	AQ	AR	AS	AT
648	**Table D1.2.NFAB-2010-PD24. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths**					
649	**Terminal Project NEPA Baseline - Vessels that Comply with VSRP + Slide Valves**					
650		*Tons Per Year*				
651	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
652	*Project Year 2010*					
653	Containerships 8,000 - 9,000 TEU					
654	Containerships 5,000 - 6,000 TEU					
655	Containerships 3,000 - 5,000 TEU	0.03	0.08	0.76	0.38	0.05
656	Containerships < 3,000 TEU					
657	**Subtotal**	**0.03**	**0.08**	**0.76**	**0.38**	**0.05**
658	*Project Year 2025*					
659	Containerships 8,000 - 9,000 TEU					
660	Containerships 5,000 - 6,000 TEU					
661	Containerships 3,000 - 5,000 TEU					
662	Containerships < 3,000 TEU					
663	**Subtotal**	-	-	-	-	-
664	*Project Year 2038*					
665	Containerships 8,000 - 9,000 TEU					
666	Containerships 5,000 - 6,000 TEU					
667	Containerships 3,000 - 5,000 TEU					
668	Containerships < 3,000 TEU					
669	**Subtotal**	-	-	-	-	-
670	Notes: (1) Assumes 25/50/95% VSRP compliance rates for years 2003/2007/post-2007.					
671	(2) Fuel types assumed for each project year identified in Table D3-A1.1					
672						
673	**Table D1.2.NFAB-2010-PD25. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths**					
674	**Terminal Project NEPA Baseline - Non-Compliant Vessels within VSRP + Slide Valves.**					
675		*Tons Per Year*				
676	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
677	*Project Year 2010*					
678	Containerships 8,000 - 9,000 TEU					
679	Containerships 5,000 - 6,000 TEU					
680	Containerships 3,000 - 5,000 TEU					
681	Containerships < 3,000 TEU					
682	**Subtotal**					
683	*Project Year 2010*					
684	Containerships 8,000 - 9,000 TEU					
685	Containerships 5,000 - 6,000 TEU					
686	Containerships 3,000 - 5,000 TEU					
687	Containerships < 3,000 TEU					
688	**Subtotal**					
689	*Project Year 2038*					
690	Containerships 8,000 - 9,000 TEU					
691	Containerships 5,000 - 6,000 TEU					
692	Containerships 3,000 - 5,000 TEU					
693	Containerships < 3,000 TEU					
694	**Subtotal**					
695	Note: (1) Assumes 75/50/05% VSRP non-compliance rates for years 2003/2007/post-2007.					
696	(2) Fuel types assumed for each project year identified in Table D3-A1.1					

	AO	AP	AQ	AR	AS	AT
699	**Table D1.2.NFAB-2010-PD26. Peak Daily Cargo Vessel Emissions within the POLA Precautionary**					
700	**Area - Berths 136-147 Terminal Project - NEPA Baseline + Slide Valves.**					
701		*Tons Per Year*				
702	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
703	*Project Year 2010*					
704	Containerships 8,000 - 9,000 TEU					
705	Containerships 5,000 - 6,000 TEU					
706	Containerships 3,000 - 5,000 TEU	0.01	0.02	0.18	0.08	0.01
707	Containerships < 3,000 TEU					
708	**Subtotal**	**0.01**	**0.02**	**0.18**	**0.08**	**0.01**
709	*Project Year 2025*					
710	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
711	Containerships 5,000 - 6,000 TEU	0.00	0.03	0.16	0.01	0.00
712	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
713	Containerships < 3,000 TEU					
714	**Subtotal**	**0.00**	**0.03**	**0.16**	**0.01**	**0.00**
715	*Project Year 2038*					
716	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
717	Containerships 5,000 - 6,000 TEU	0.00	0.03	0.16	0.01	0.00
718	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
719	Containerships < 3,000 TEU					
720	**Subtotal**	**0.00**	**0.03**	**0.16**	**0.01**	**0.00**
721						
722						
723	**Table D1.2.NFAB-2010-PD27. Peak Daily Cargo Vessel Emissions for Transit within the POLA**					
724	**Breakwater - Berths 136-147 Terminal Project - NEPA Baseline + Slide Valves.**					
725		*Tons Per Year*				
726	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
727	*Project Year 2010*					
728	Containerships 8,000 - 9,000 TEU					
729	Containerships 5,000 - 6,000 TEU					
730	Containerships 3,000 - 5,000 TEU	0.01	0.02	0.09	0.02	0.01
731	Containerships < 3,000 TEU					
732	**Subtotal**	**0.01**	**0.02**	**0.09**	**0.02**	**0.01**
733	*Project Year 2025*					
734	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
735	Containerships 5,000 - 6,000 TEU	0.01	0.03	0.10	0.00	0.00
736	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
737	Containerships < 3,000 TEU					
738	**Subtotal**	**0.01**	**0.03**	**0.10**	**0.00**	**0.00**
739	*Project Year 2038*					
740	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
741	Containerships 5,000 - 6,000 TEU	0.01	0.03	0.10	0.00	0.00
742	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
743	Containerships < 3,000 TEU					
744	**Subtotal**	**0.01**	**0.03**	**0.10**	**0.00**	**0.00**

	AO	AP	AQ	AR	AS	AT
746	**Table D1.2.NFAB-2010-PD28. Peak Daily Cargo Vessel Emissions for Docking Activities -**					
747	**Berths 136-147 Terminal Project - NEPA Baseline + Slide Valves.**					
748		*Tons Per Year*				
749	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
750	*Project Year 2010*					
751	Containerships 8,000 - 9,000 TEU					
752	Containerships 5,000 - 6,000 TEU					
753	Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00
754	Containerships < 3,000 TEU					
755	**Subtotal**	**0.01**	**0.00**	**0.03**	**0.00**	**0.00**
756	*Project Year 2025*					
757	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
758	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.03	0.00	0.00
759	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
760	Containerships < 3,000 TEU					
761	**Subtotal**	**0.00**	**0.01**	**0.03**	**0.00**	**0.00**
762	*Project Year 2038*					
763	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
764	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.03	0.00	0.00
765	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
766	Containerships < 3,000 TEU					
767	**Subtotal**	**0.00**	**0.01**	**0.03**	**0.00**	**0.00**

	AV	AW	AX	AY	AZ	BA
1	**Table D1.2.NFAB-2010-PD29. Peak Daily Vessel Emissions - Berths 136-147 Terminal Project -**					
2	**NEPA Baseline.**					
3		*Tons*				
4	*Project Scenario/Emission Source*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
5	*Year 2003 Baseline*					
6	Ships - Fairway Transit (1)					
7	Ships - Precautionary Area Transit (1)					
8	Ships - Harbor Transit (1)					
9	Ships - Docking (1)					
10	Ships - Hoteling Aux. Sources					
11	Tugboats - Cargo Vessel Assist (1)					
12	**Subtotal**					
13	*Project Year 2007*					
14	Ships - Fairway Transit (1)					
15	Ships - Precautionary Area Transit (1)					
16	Ships - Harbor Transit (1)					
17	Ships - Docking (1)					
18	Ships - Hoteling Aux. Sources					
19	Tugboats - Cargo Vessel Assist (1)					
20	**Subtotal**					
21	*Project Year 2010*					
22	Ships - Fairway Transit (1)	0.03	0.09	0.87	0.44	0.06
23	Ships - Precautionary Area Transit (1)	0.01	0.03	0.24	0.13	0.02
24	Ships - Harbor Transit (1)	0.02	0.03	0.19	0.08	0.02
25	Ships - Docking (1)	0.01	0.01	0.05	0.02	0.00
26	Ships - Hoteling Aux. Sources	0.02	0.09	0.87	0.82	0.07
27	Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.07	0.00	0.00
28	**Subtotal**	**0.09**	**0.25**	**2.29**	**1.49**	**0.17**
29	*Project Year 2025*					
30	Ships - Fairway Transit (1)	0.00	0.01	0.16	0.01	0.00
31	Ships - Precautionary Area Transit (1)	0.01	0.04	0.25	0.03	0.01
32	Ships - Harbor Transit (1)	0.01	0.04	0.24	0.02	0.01
33	Ships - Docking (1)	0.00	0.01	0.07	0.01	0.00
34	Ships - Hoteling Aux. Sources	0.00	0.05	0.14	0.60	0.02
35	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
36	**Subtotal**	**0.03**	**0.15**	**0.86**	**0.67**	**0.03**
37	*Project Year 2038*					
38	Ships - Fairway Transit (1)	0.00	0.01	0.16	0.01	0.00
39	Ships - Precautionary Area Transit (1)	0.01	0.04	0.25	0.03	0.01
40	Ships - Harbor Transit (1)	0.01	0.04	0.24	0.02	0.01
41	Ships - Docking (1)	0.00	0.01	0.07	0.01	0.00
42	Ships - Hoteling Aux. Sources	0.00	0.05	0.14	0.60	0.02
43	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
44	**Subtotal**	**0.03**	**0.15**	**0.86**	**0.67**	**0.03**
45	Note: (1) Includes auxiliary power emissions.					

	AV	AW	AX	AY	AZ	BA
48	**Table D1.2.NFAB-2010-PD30. Mitigated Peak Daily Vessel Emissions - Berths 136-147 Terminal Project - NEPA Bas**					
49		*Pounds Per Peak Day*				
50	*Project Scenario/Emission Source*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
51	*Year 2003 Baseline*					
52	Ships - Fairway Transit (1)	-	-	-	-	-
53	Ships - Precautionary Area Transit (1)	-	-	-	-	-
54	Ships - Harbor Transit (1)	-	-	-	-	-
55	Ships - Docking (1)	-	-	-	-	-
56	Ships - Hoteling Aux. Sources	-	-	-	-	-
57	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
58	**Subtotal**	**-**	**-**	**-**	**-**	**-**
59	*Project Year 2007*					
60	Ships - Fairway Transit (1)	-	-	-	-	-
61	Ships - Precautionary Area Transit (1)	-	-	-	-	-
62	Ships - Harbor Transit (1)	-	-	-	-	-
63	Ships - Docking (1)	-	-	-	-	-
64	Ships - Hoteling Aux. Sources	-	-	-	-	-
65	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
66	**Subtotal**	**-**	**-**	**-**	**-**	**-**
67	*Project Year 2010*					
68	Ships - Fairway Transit (1)	64	171	1,738	874	121
69	Ships - Precautionary Area Transit (1)	23	57	489	263	36
70	Ships - Harbor Transit (1)	34	52	372	164	32
71	Ships - Docking (1)	12	14	103	40	9
72	Ships - Hoteling Aux. Sources	49	187	1,738	1,649	134
73	Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6
74	**Subtotal**	**186**	**505**	**4,580**	**2,990**	**338**
75	*Project Year 2025*					
76	Ships - Fairway Transit (1)	9	26	329	20	7
77	Ships - Precautionary Area Transit (1)	12	78	493	58	11
78	Ships - Harbor Transit (1)	19	77	482	47	12
79	Ships - Docking (1)	6	21	133	12	3
80	Ships - Hoteling Aux. Sources	8	102	273	1,198	34
81	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
82	**Subtotal**	**55**	**303**	**1,711**	**1,335**	**66**
83	*Project Year 2038*					
84	Ships - Fairway Transit (1)	9	26	329	20	7
85	Ships - Precautionary Area Transit (1)	12	78	493	58	11
86	Ships - Harbor Transit (1)	19	77	482	47	12
87	Ships - Docking (1)	6	21	133	12	3
88	Ships - Hoteling Aux. Sources	8	102	273	1,198	34
89	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
90	**Subtotal**	**55**	**303**	**1,711**	**1,335**	**66**
91	Note: (1) Includes auxiliary power emissions.					

	A	B	C	D	E
1	**Table D1.2.NFAB-2010-PD31. Ship Visit and Throughput Data - Berths 136-147 Terminal Project - NEPA Bas**				
2		*Peak Daily*	*Max TEU Moves/*	*Peak Daily*	*Hoteling Time/*
3	*Project Scenario/Ship Type*	*Ship Visits*	*Peak Day (1)*	*TEU Moves*	*Visit (Hours) (2)*
4	**Baseline - Year 2003**				
5	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
6	Containerships < 3,000 TEU	1	2,992	2,992	24.0
7	**Subtotal**	**2**		**5,984**	
8	**Project Year 2007**				
9	Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0
10	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
11	Containerships < 3,000 TEU		2,992		
12	**Subtotal**	**2**		**6,732**	
13	**Project Year 2010**				
14	Containerships 8,000 - 9,000 TEU				
15	Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0
16	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
17	Containerships < 3,000 TEU		2,992		
18	**Subtotal**	**2**		**6,732**	
19	**Project Year 2025**				
20	Containerships 8,000 - 9,000 TEU				
21	Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
22	Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
23	Containerships < 3,000 TEU	1	3,927	1,963	24.0
24	**Subtotal**	**3**		**10,799**	
25	**Project Year 2038**				
26	Containerships 8,000 - 9,000 TEU				
27	Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
28	Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
29	Containerships < 3,000 TEU	1	3,927	1,963	24.0
30	**Subtotal**	**3**		**10,799**	
31	Notes: (1) Assumes that 4 cranes would service <3,000 and 3-5,000 TEU vessels @ 1600 lifts/day = 2992 TEUs/day,				
32	5 cranes would service 5-6,000 TEU vessels @ 2000 lifts/day = 3740 TEUs/day, and 6 cranes would service				
33	8-9,000 TEU vessels @ 2400 lifts/day = 4488 TEUs/day (TraPac 2006) during 16 hours of service.				
34	Beginning in year 2015, crane service time increases to 21 hours/day and 4-, 5-, and 6- crane production =				
35	3,927, 4,909, and 5,890 TEUs/day.				
36					
37					
38					

Table D1.2.NFAB-2010-PD32. ADT Estimates - Berths 136-147 NEPA Baseline

Alternative/Project Year	*Truck Trips*		
	Annual	*ADT*	*Peak Daily (1)*
2003 - Baseline	1,197,589	3,281	4,492
2007	1,464,255	4,012	5,492
2010	1,634,139	4,477	6,130
2025	1,200,205	3,288	4,502
2038	1,200,205	3,288	4,502

(1) = Peak Daily trips/ 266.6 days.

Table D1.2.NFAB-2010-PD33. On-Road Truck Peak Daily Operational Data for the Berths 136-147 Terminal Project - NEPA Baseline

Activity/Project Scenario	*Idling Time/ Trip (Hrs) (1)*	*Miles/ Trip (2)*	*Peak Daily Trips*	*Idling Hrs/ Day*	*Miles/ Day*	*TEUs/ Peak Day*
On-Terminal						
Year 2003 - Baseline	0.56	1.02	4,492	2,516	4,587	8,310
Year 2007	0.25	1.02	5,492	1,373	5,609	10,161
Year 2010	0.25	0.81	6,130	1,532	4,938	11,340
Year 2025	0.25	0.81	4,502	1,125	3,627	8,329
Year 2038	0.25	0.81	4,502	1,125	3,627	8,329
Off-Terminal						
Year 2003 - Baseline	0.30	32.3	4,492	1,348	145,162	
Year 2007	0.30	32.3	5,492	1,648	177,485	
Year 2010	0.30	40.9	6,130	1,839	250,526	
Year 2025	0.30	49.4	4,502	1,351	222,205	
Year 2038	0.30	49.4	4,502	1,351	222,205	

Notes: (1) 2003 on-terminal durations from PEI. Post-2003 on-terminal durations from TraPac (TraPac 2006).

(2) On-terminal mileage/trip based upon current/proposed terminal gate systems. Off-terminal miles/trip from data presented in Table D1.2.PP-Mit-PD34.

Table D1.2.NFAB-2010-PD34. Peak Daily Truck Emissions for the Berths 136-147 Terminal Project - NEPA Baseline

	Pounds per Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal (1)						
Year 2003 - Idling	97	228	535	3	16	15
Year 2003 - Driving	106	241	386	3	39	36
Subtotal - Year 2003	204	469	921	6	55	51
Year 2007 - Idling	42	154	321	0	7	6
Year 2007 - Driving	127	266	479	0	39	35
Subtotal - Year 2007	169	419	800	1	45	42
Year 2010 - Idling	25	103	430	0	1	1
Year 2010 - Driving	26	54	117	0	5	5
Subtotal - Year 2010	51	157	547	1	6	6
Year 2025 - Idling	18	75	317	0	0	0
Year 2025 - Driving	9	20	33	0	1	1
Subtotal - Year 2025	27	95	350	0	1	1
Year 2038 - Idling	18	77	317	0	0	0
Year 2038 - Driving	9	20	33	0	1	1
Subtotal - Year 2038	27	97	350	0	1	1
Off-Terminal						
Year 2003 - Idling	52	122	287	2	8	8
Year 2003 - Driving	876	3,480	7,918	53	524	482
Subtotal - Year 2003	929	3,602	8,205	55	533	490
Year 2007 - Idling	51	185	385	0	8	7
Year 2007 - Driving	994	3,517	9,795	8	448	412
Subtotal - Year 2007	1,044	3,702	10,180	8	456	420
Year 2010 - Idling	30	124	516	0	1	1
Year 2010 - Driving	348	1,192	3,532	11	130	120
Subtotal - Year 2010	379	1,315	4,047	11	132	121
Year 2025 - Idling	21	90	381	0	0	0
Year 2025 - Driving	159	547	1,114	10	34	31
Subtotal - Year 2025	180	637	1,495	10	34	31
Year 2038 - Idling	21	93	381	0	0	0
Year 2038 - Driving	164	539	1,136	10	31	29
Subtotal - Year 2038	186	632	1,517	10	32	29
Year 2003	1,132	4,071	9,126	61	588	541
Year 2007	1,213	4,121	10,981	8	501	461
Year 2010	430	1,472	4,594	12	138	127
Year 2025	207	731	1,845	10	35	32
Year 2038	213	729	1,866	11	32	30

Notes: (1) On-terminal driving emissions calculated with 10 mph emission factors.

Table D1.2.NFAB-2010-PD35. On-Road Truck Mitigated Emission Factors - Berths 136-147 Terminal Project Alternatives Scenario

	Emission Factors (Grams/Mile)						
Project Year/Mode - Diesel Trucks (5)	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*DPM*	*References*
Baseline - Year 2003							
On-road Truck - Idle	17.55	41.05	96.52	0.58	2.85	2.85	(1)
On-road Truck - 10 mph	10.50	23.83	38.13	0.26	3.89	3.89	(1)
On-road Truck - 25 mph	2.25	12.68	23.38	0.17	1.57	1.57	(1)
On-road Truck - 55 mph	1.41	5.38	23.09	0.14	1.16	1.16	(1)
On-road Trucks - Composite Off-Terminal	2.74	10.87	24.74	0.17	1.64	1.64	(2)
Project Year 2007							
On-road Truck - Idle	13.97	50.79	105.98	0.06	2.23	2.23	(3)
On-road Truck - 10 mph	10.25	21.47	38.74	0.03	3.11	3.11	(3)
On-road Truck - 25 mph	2.01	10.25	23.34	0.02	1.06	1.06	(3)
On-road Truck - 55 mph	1.27	4.29	23.71	0.02	0.76	0.76	(3)
On-road Trucks - Composite Off-Terminal	2.54	8.99	25.03	0.02	1.14	1.14	(2)
Project Year 2010							
On-road Truck - Idle	7.44	30.48	127.16	0.07	0.36	0.36	(3)
On-road Truck - 10 mph	2.38	4.95	10.75	0.03	0.45	0.45	(3)
On-road Truck - 25 mph	0.51	2.03	6.20	0.02	0.20	0.20	(3)
On-road Truck - 55 mph	0.29	1.48	5.33	0.02	0.24	0.24	(3)
On-road Trucks - Composite Off-Terminal	0.63	2.16	6.39	0.02	0.24	0.24	(4)
Project Year 2025							
On-road Truck - Idle	7.19	30.13	127.88	0.07	0.09	0.09	(3)
On-road Truck - 10 mph	1.14	2.49	4.11	0.03	0.07	0.07	(3)
On-road Truck - 25 mph	0.28	0.94	2.30	0.02	0.06	0.06	(3)
On-road Truck - 55 mph	0.14	1.01	1.61	0.02	0.10	0.10	(3)
On-road Trucks - Composite Off-Terminal	0.32	1.12	2.27	0.02	0.07	0.07	(4)
Project Year 2040							
On-road Truck - Idle	7.19	31.13	127.88	0.07	0.09	0.09	(3)
On-road Truck - 10 mph	1.13	2.47	4.07	0.03	0.07	0.07	(3)
On-road Truck - 25 mph	0.28	0.93	2.27	0.02	0.06	0.06	(3)
On-road Truck - 55 mph	0.14	1.00	1.60	0.02	0.09	0.09	(3)
On-road Trucks - Composite Off-Terminal	0.34	1.10	2.32	0.02	0.06	0.06	(5)
LNG-Powered Trucks - AllYears							
On-road Truck - Idle	1.58	7.52	19.91	-		0.05	(6)
LNG Trucks - Driving	0.28	1.21	1.19	-		0.06	(6)

Notes: (1) From EMFAC2002 (ARB 2003). Units in grams/mile for each project year, at 60 degrees and 50% relative humidity, except idle factors in units of grams/hour. PM10 non-idle factors include combustive and tire and break wear emissions. Based on age distribution of year 2001 POLA truck fleet, as used in the PEI.

(2) Based on 10% at 10 miles per hour (mph), 50% at 25 mph, and 40% at 55 mph. Although not included in this composite emission factor, 30 minutes of idling mode included in emission estimates for each truck trip.

(3) Mitigated emission factors assume that the Port truck fleet would convert to 2007 EPA standards (Tier 4) at the following rate: 15/30/50/70/90/100% in years 2007/2008/2009/2010/2011/2012. Data obtained from China Shipping Truck Efs Ops.xls file. Year 2007/2010 data other then DPM interpolated between 2005 and 2015 data.

(4) Same as (2), except based on 10% at 10 miles per hour (mph), 60% at 25 mph, and 30% at 55 mph.

Table D1.2.NFAB-2010-PD36. Road Dust Emissions for the Berths 136-147 Terminal Project - NEPA Baseline

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.32	13.91
Year 2007	100.65	17.01
Year 2010	88.61	14.98
Year 2025	65.08	11.00
Year 2038	65.08	11.00
Off-Terminal		
Year 2003 - Baseline	114.80	19.40
Year 2007	140.37	23.72
Year 2010	198.14	33.48
Year 2025	175.74	29.70
Year 2038	175.74	29.70
Combined On/Off-Terminal		
Year 2003 - Baseline	197.13	33.31
Year 2007	241.02	40.73
Year 2010	286.75	48.46
Year 2025	240.82	40.70
Year 2038	240.82	40.70

Notes: (1) 47.05 % freeway travel and 52.95% surface street travel

Table D1.2.NFAB-2010-PD37. Brake and Tire Wear Emissions for the Berths 136-147 Terminal Project - NEPA Baseline

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	0.51	0.22
Year 2007	0.62	0.27
Year 2010	0.54	0.23
Year 2025	0.40	0.17
Year 2038	0.40	0.17
Off-Terminal		
Year 2003 - Baseline	16.00	6.86
Year 2007	19.56	8.39
Year 2010	27.62	11.85
Year 2025	24.49	10.51
Year 2038	24.49	10.51
Combined On/Off-Terminal		
Year 2003 - Baseline	16.51	7.08
Year 2007	20.18	8.66
Year 2010	28.16	12.08
Year 2025	24.89	10.68
Year 2038	24.89	10.68

Table D1.2.NFAB-2010-PD38. Total Non-Combustive Truck Generated PM Emissions for the Berths 136-147 Terminal Project - NEPA Baseline

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.83	14.13
Year 2007	101.27	17.28
Year 2010	89.16	15.21
Year 2025	65.48	11.17
Year 2038	65.48	11.17
Off-Terminal		
Year 2003 - Baseline	130.81	26.27
Year 2007	159.93	32.12
Year 2010	225.75	45.33
Year 2025	200.23	40.21
Year 2038	200.23	40.21
Combined On/Off-Terminal		
Year 2003 - Baseline	214	40
Year 2007	261	49
Year 2010	315	61
Year 2025	266	51
Year 2038	266	51

	A	B	C
97	Table D1.2.NFAB-2010-PD39. Peak Daily Train Trips - Berths 136-147		
98	Terminal Project - NEPA Baseline		
99		*Peak Daily*	
100	*Project Scenario/Rail Yard*	*Round Trips*	
101	Year 2003 Baseline		
102	To/from Berths 136-147 ICTF	-	
103	To/from Carson/LA Rail Yards	2	
104	Year 2007		
105	To/from Berths 136-147 ICTF	-	
106	To/from Carson/LA Rail Yards	2	
107	Year 2010		
108	To/from Berths 136-147 ICTF	2	
109	To/from Carson/LA Rail Yards	1	

	J	K	L	M	N	O	P
52	Table D1.2.NFAB-2010-PD40. Mitigated Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions -						
53	Berths 136-147 Terminal Project Year 2010 - NEPA Baseline.						
54		*Tons*					
55	*ICTF/Train Direction/Source Activity*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	
56	*Berths 136-147/Outbound*						
57	Hostler	0.00	0.02	0.03	0.00	0.00	
58	Top Picks	0.00	0.01	0.02	0.00	0.00	
59	Line Haul Locomotive - Road Haul	0.02	0.05	0.29	0.01	0.01	
60	Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00	
61	Yard Locomotive - Switching	0.00	0.00	0.01	0.00	0.00	
62	Subtotal	0.03	0.08	0.35	0.01	0.01	
63	*Berths 136-147/Inbound*						
64	Hostler	0.00	0.01	0.01	0.00	0.00	
65	Top Picks	0.00	0.00	0.01	0.00	0.00	
66	Line Haul Locomotive - Road Haul	0.02	0.05	0.29	0.01	0.01	
67	Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00	
68	Subtotal	0.02	0.06	0.31	0.01	0.01	
69	*Carson or LA Railyards/Outbound*						
70	Hostler	0.00	0.01	0.02	0.00	0.00	
71	Top Picks	0.00	0.00	0.01	0.00	0.00	
72	Line Haul Locomotive - Road Haul	0.01	0.02	0.13	0.00	0.00	
73	Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00	
74	Yard Locomotive - Switching	0.00	0.00	0.00	0.00	0.00	
75	Subtotal	0.01	0.04	0.17	0.00	0.01	
76	*Carson or LA Railyards/Inbound*						
77	Hostler	0.00	0.00	0.01	0.00	0.00	
78	Top Picks	0.00	0.00	0.00	0.00	0.00	
79	Line Haul Locomotive - Road Haul	0.01	0.02	0.13	0.00	0.00	
80	Line Haul Locomotive - Notch 1	0.00	0.00	0.00	0.00	0.00	
81	Subtotal	0.01	0.03	0.15	0.00	0.00	
82	Total Tons Per Year	0.07	0.21	0.98	0.02	0.03	
83							

	J	K	L	M	N	O	P
148	Table D1.2.NFAB-2010-PD41. Summary of Peak Daily Train and Rail Yard Cargo Handling Equipment Mitigated						
149	Emissions - Berths 136-147 Terminal Project - NEPA Baseline.						
150		*Tons*					
151	*Project Scenario/Source Activity*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	
152	*Baseline Year 2003*						
153	ICTF Equipment	0.01	0.03	0.10	0.00	0.01	
154	Trains	0.05	0.10	0.87	0.06	0.03	
155	Subtotal	0.06	0.14	0.97	0.06	0.03	
156	*Project Year 2007*						
157	ICTF Equipment	0.01	0.03	0.10	0.00	0.00	
158	Trains	0.04	0.10	0.62	0.06	0.02	
159	Subtotal	0.05	0.14	0.72	0.06	0.03	
160	*Project Year 2010*						
161	ICTF Equipment	0.01	0.05	0.10	0.00	0.00	
162	Trains	0.06	0.16	0.89	0.02	0.02	
163	Subtotal	0.07	0.21	0.98	0.02	0.03	

Table D1.2.NFAB-2010-PD42. Future Baseline Diesel-Powered Unmitigated Emission Factors for Terminal I
Berths 136-147 Terminal Project Alternatives.

	Emission Factors (1)					
Project Scenario/Equipment Horsepower	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*References*
Baseline - Year 2003						
Terminal Equipment - 121-175 Hp	0.83	3.39	9.15	0.10	0.52	(1)
Terminal Equipment - 176-250 Hp	0.44	1.32	6.79	0.10	0.24	(1)
Terminal Equipment - 250-500 Hp	0.44	1.47	6.98	0.10	0.22	(1)
Project Year 2007						
Terminal Equipment - 121-175 Hp	0.79	3.49	8.41	0.004	0.39	(1)
Terminal Equipment - 176-250 Hp	0.57	1.60	7.07	0.004	0.29	(1)
Terminal Equipment - 250-500 Hp	0.40	1.40	6.18	0.004	0.22	(1)
Project Year 2010						
Terminal Equipment - 121-175 Hp	0.62	3.37	6.95	0.004	0.32	(1)
Terminal Equipment - 176-250 Hp	0.46	1.46	6.05	0.004	0.25	(1)
Terminal Equipment - 250-500 Hp	0.35	1.31	5.32	0.004	0.21	(1)
Project Year 2015						
Terminal Equipment - 121-175 Hp	0.10	3.07	0.92	0.004	0.03	(1)
Terminal Equipment - 176-250 Hp	0.10	1.12	0.58	0.004	0.03	(1)
Terminal Equipment - 250-500 Hp	0.08	1.00	0.54	0.004	0.03	(1)
Project Year 2038						
Terminal Equipment - 121-175 Hp	0.08	3.07	0.30	0.004	0.02	(1)
Terminal Equipment - 176-250 Hp	0.09	1.12	0.32	0.004	0.02	(1)
Terminal Equipment - 250-500 Hp	0.07	1.00	0.29	0.004	0.02	(1)

Notes: (1) Data calculated from OFFROAD Emissions Model factors estimated for the year 2001 terminal equipment fleet (ARB 2004) with the use of an equipment replacement rate of 15 years and taking into consideration future off-roac emission standards implementation schedule and equipment deterioration factors.

Table D1.2.NFAB-2010-PD43. Mitigated Emission Factors for Terminal Equipment -
Berths 136-147 Terminal Project Alternatives.

	Emission Factors (Gm/Hp-Hr)					
Mitigation Scenario/Equipment Horsepower	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*References*
EPA Tier 4 Off-road Diesel Engine Standards						
100-175 Hp	0.30	3.70	0.30	0.004	0.015	(1)
176-500 Hp	0.30	2.60	0.30	0.004	0.015	(1)

Notes: (1) NOx/PM = Tier 4 off-road standards from EPA Rule. CO/NMHC = Tier 2 or 3 stds, as there are no Tier 4 stds for th

Table D1.2.NFAB-2010-PD44. Terminal Equipment Annual Emissions - Berths 136-147 Terminal Proposed Project NEPA Baseline

Project Scenario/Equipment Horsepower	*Peak Daily Hp-Hrs*	*Annual Emissions (Tons)*					
		ROG	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline - Year 2003							
Terminal Equipment - 121-175 Hp	10,493,875	9.61	39.16	105.82	1.19	6.03	5.55
Terminal Equipment - 176-250 Hp	12,581,479	6.11	18.34	94.22	1.42	3.37	3.10
Terminal Equipment - 250-500 Hp	2,417,350	1.18	3.92	18.61	0.27	0.58	0.53
Subtotal	25,492,704	16.89	61.43	218.65	2.89	9.98	9.18
Project Year 2007							
Terminal Equipment - 121-175 Hp	12,423,941	10.87	47.79	115.14	0.06	5.35	4.93
Terminal Equipment - 176-250 Hp	14,895,504	9.36	26.27	116.14	0.07	4.75	4.37
Terminal Equipment - 250-500 Hp	2,861,956	1.27	4.42	19.50	0.01	0.69	0.63
Subtotal	30,181,402	21.50	78.48	250.78	0.15	10.79	9.93
Project Year 2010							
Terminal Equipment - 121-175 Hp	15,899,853	9.81	59.11	98.56	0.08	4.60	4.23
Terminal Equipment - 176-250 Hp	19,062,899	9.64	30.63	102.92	0.09	4.20	3.87
Terminal Equipment - 250-500 Hp	3,662,661	1.51	5.73	17.52	0.02	0.68	0.63
Subtotal	38,621,412	20.96	95.46	219.00	0.19	9.48	8.73

Table D1.2.NFAB-2010-PD45. Terminal Equipment Peak Daily Emissions - Berths 136-147 Terminal Project - NEPA Baseline

		Peak Daily Emissions (Tons)					
Project Scenario/Equipment Horsepower		*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2003							
Terminal Equipment - 121-175 Hp		0.15	0.63	1.70	0.02	0.10	0.09
Terminal Equipment - 176-250 Hp		0.10	0.29	1.51	0.02	0.05	0.05
Terminal Equipment - 250-500 Hp		0.02	0.06	0.30	0.00	0.01	0.01
Subtotal		0.27	0.98	3.50	0.05	0.16	0.15
Project Year 2007							
Terminal Equipment - 121-175 Hp		0.17	0.76	1.84	0.00	0.09	0.08
Terminal Equipment - 176-250 Hp		0.15	0.42	1.86	0.00	0.08	0.07
Terminal Equipment - 250-500 Hp		0.02	0.07	0.31	0.00	0.01	0.01
Subtotal		0.34	1.26	4.01	0.00	0.17	0.16
Project Year 2010							
Terminal Equipment - 121-175 Hp		0.13	0.79	1.32	0.00	0.06	0.06
Terminal Equipment - 176-250 Hp		0.13	0.41	1.38	0.00	0.06	0.05
Terminal Equipment - 250-500 Hp		0.02	0.08	0.23	0.00	0.01	0.01
Subtotal		0.28	1.28	2.93	0.00	0.13	0.12

Table D1.2.NFAB-2010-PD46. Peak Daily Terminal Yard TEU Throughput - NEPA Baseline

	Peak Daily TEUs				Peak Daily/
Project Year	*Wharf*	*Gate*	*Total*	*Annual TEUs*	*Annual TEUs*
2003	5,984	8,310	14,294	891,976	0.016
2007	6,732	10,161	16,893	1,056,000	0.016
2010	6,732	11,340	18,072	1,351,400	0.013
2025	10,799	8,329	19,128	1,697,000	0.011
2038	10,799	8,329	19,128	1,697,000	0.011

Table D1.2.NFAB-PD47. On-Road Truck Trip Vehicle Miles Travelled - Berths 136-147 Terminal Project - NEPA Baseline.

Year	*B136-149 Throughput (TEUs)*	*B136-149 ICTF Thruput (TEUs) (1)*	*TEUs to Offsite Railyard (2)*	*TEUs to Local Deilveries*	*Truck Trips to Offsite Railyard (2)*	*Local Truck Trips (3)*	*Truck Miles to Offsite Railyard (4)*	*Local Truck Trip Miles (5)*	*Composite VMT/ Truck Trip*
Baseline - Year 2003	891,976	-	445,988	445,988	598,795	598,795	9.6	55.0	32.3
Year 2007	1,056,000	-	528,000	528,000	756,532	756,532	9.6	55.0	32.3
Year 2010	1,351,400	188,339	362,175	800,886	508,868	1,125,271	9.6	55.0	40.9
Year 2025	1,697,000	700,810	123,881	872,309	233,837	1,646,564	9.6	55.0	49.4
Year 2038	1,697,000	700,810	123,881	872,309	233,837	1,646,564	9.6	55.0	49.4

(1) Peak Daily throughput estimates from Rail Master Plan.

(2) Based on 50/50/26.8/6.7/7.3% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(3) Based on 50/50/61.4/62.1/63.4% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(4) Assumes an even split to Carson ICTF (4.5 miles) and LA railyards (18 miles) = 11.3 miles/trip

(5) Average local trip length with origin/destination at the POLA.

Table D1.2.NFAB-2010-PD48. Peak Daily Operational Emissions - Berths 136-147 Terminal Project - NEPA Baseline

	Tons					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2007						
Ships - Fairway Transit (1)						
Ships - Precautionary Area Transit (1)						
Ships - Harbor Transit (1)						
Ships - Docking (1)						
Ships - Hoteling Aux. Sources						
Tugboats - Cargo Vessel Assist (1)						
Terminal Equipment						
On-road Trucks						
Trains						
Railyard Equipment						
Commuting						
Pier A Railyard						
Project Year 2007 Total						
Project Year 2010						
Ships - Fairway Transit (1)	0.03	0.09	0.87	0.44	0.06	0.06
Ships - Precautionary Area Transit (1)	0.01	0.03	0.24	0.13	0.02	0.02
Ships - Harbor Transit (1)	0.02	0.03	0.19	0.08	0.02	0.01
Ships - Docking (1)	0.01	0.01	0.05	0.02	0.00	0.00
Ships - Hoteling Aux. Sources	0.02	0.09	0.87	0.82	0.07	0.06
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.07	0.00	0.00	0.00
Terminal Equipment	0.28	1.28	2.93	0.00	0.13	0.12
On-road Trucks	0.21	0.74	2.30	0.01	0.23	0.09
Trains	0.06	0.16	0.89	0.02	0.02	0.02
Railyard Equipment	0.01	0.05	0.10	0.00	0.00	0.00
Commuting	0.01	0.08	0.01	0.00	0.01	0.01
Pier A Railyard	0.00	0.00	0.02	0.00	0.00	0.00
Project Year 2010 Total	0.67	2.56	8.53	1.52	0.56	0.41

Table D1.2.NFAB-2010-PD49. Peak Daily Operational Emissions - Berths 136-147 Terminal Project - NEPA Baseline.

	Pounds Per Peak Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2007						
Ships - Fairway Transit (1)						
Ships - Precautionary Area Transit (1)						
Ships - Harbor Transit (1)						
Ships - Docking (1)						
Ships - Hoteling Aux. Sources						
Tugboats - Cargo Vessel Assist (1)						
Terminal Equipment						
On-road Trucks						
Trains						
Railyard Equipment						
Commuting						
Pier A Railyard						
Project Year 2007 Total						
Project Year 2010						
Ships - Fairway Transit (1)	64	171	1,738	874	121	114
Ships - Precautionary Area Transit (1)	23	57	489	263	36	34
Ships - Harbor Transit (1)	34	52	372	164	32	30
Ships - Docking (1)	12	14	103	40	9	9
Ships - Hoteling Aux. Sources	49	187	1,738	1,649	134	126
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6	5
Terminal Equipment	561	2,553	5,857	5	254	233
On-road Trucks	430	1,472	4,594	12	453	188
Trains	128	326	1,772	39	49	45
Railyard Equipment	19	101	197	0	9	8
Commuting	12	161	21	0	22	21
Pier A Railyard	2	9	30	0	0	0
Project Year 2010 Total = Mitigated Alt 3	1,338	5,127	17,051	3,046	1,125	812
Net Change from Existing Conditions	(639)	(1,808)	(5,960)	(804)	(481)	(517)
Net Change from NFAB Year 2010	0	0	0	0	0	0
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

	A	B	C	D	E	F	G
1	Table D1.2.PP-2010-PD1. Peak Daily Ship Visit and Throughput Data - Berths 136-147 Terminal Project - Proposed Project.						
2		*Peak Daily*	*Max TEU Moves/*	*Peak Daily*	*Hoteling Hours/*		
3	*Project Scenario/Ship Type*	*Ship Visits*	*Peak Day (1)*	*TEU Moves*	*Day (2)*		
4	Baseline - Year 2003						
5	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0		
6	Containerships < 3,000 TEU	1	2,992	2,992	24.0		
7	Subtotal	2		5,984			
8	Project Year 2007						
9	Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0		
10	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0		
11	Containerships < 3,000 TEU		2,992				
12	Subtotal	2		6,732			
13	Project Year 2010						
14	Containerships 8,000 - 9,000 TEU	1	4,488	4,488	24.0		
15	Containerships 5,000 - 6,000 TEU	1	3,740	2,992	24.0		
16	Containerships 3,000 - 5,000 TEU		2,992				
17	Containerships < 3,000 TEU		2,992				
18	Subtotal	2		7,480			
19	Project Year 2025						
20	Containerships 8,000 - 9,000 TEU	1	5,890	5,890	24.0		
21	Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0		
22	Containerships 3,000 - 5,000 TEU	1	3,927	982	24.0		
23	Containerships < 3,000 TEU		3,927				
24	Subtotal	3		11,781			
25	Project Year 2038						
26	Containerships 8,000 - 9,000 TEU	1	5,890	5,890	24.0		
27	Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0		
28	Containerships 3,000 - 5,000 TEU	1	3,927	982	24.0		
29	Containerships < 3,000 TEU		3,927				
30	Subtotal	3		11,781			
31	Notes: (1) Assumes that 4 cranes would service <3,000 and 3-5,000 TEU vessels @ 1600 lifts/day = 2992 TEUs/day,						
32	5 cranes would service 5-6,000 TEU vessels @ 2000 lifts/day = 3740 TEUs/day, and 6 cranes would service						
33	8-9,000 TEU vessels @ 2400 lifts/day = 4488 TEUs/day (TraPac 2006) during 16 hours of service.						
34	Beginning in year 2015, crane service time increases to 21 hours/day and 4-, 5-, and 6- crane production =						
35	3,927, 4,909, and 5,890 TEUs/day.						
36	(2) There are 10 cranes present from 2007 through 2011, then 12 cranes beginning in 2012.						
37							

Table D1.2.PP-2010-PD2. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year (1)(2)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.03	0.08	0.99	0.57	0.08	0.08
Subtotal	0.03	0.08	0.99	0.57	0.08	0.08
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.06	0.13	1.54	0.88	0.13	0.12
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.06	0.13	1.54	0.88	0.13	0.12
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.08	0.18	2.02	1.13	0.17	0.16
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.08	0.18	2.02	1.13	0.17	0.16
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.11	0.21	2.26	1.24	0.20	0.18
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.11	0.21	2.26	1.24	0.20	0.18
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.11	0.21	2.26	1.24	0.20	0.18
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.11	0.21	2.26	1.24	0.20	0.18

Note: (1) Assumes 25/50/75/80% VSRP compliance rates for years 2003/2007/2010/post-2014.

Table D1.2.PP-2010-PD3. Peak Daily Cargo Vessel Emissions within the POLA Precautionary Area - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.01	0.01	0.14	0.08	0.01	0.01
Subtotal	0.01	0.01	0.14	0.08	0.01	0.01
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.01	0.02	0.20	0.10	0.02	0.02
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.01	0.02	0.20	0.10	0.02	0.02
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.02	0.03	0.24	0.12	0.02	0.02
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.02	0.03	0.24	0.12	0.02	0.02
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.03	0.04	0.27	0.11	0.03	0.03
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.03	0.04	0.27	0.11	0.03	0.03
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.03	0.04	0.27	0.11	0.03	0.03
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.03	0.04	0.27	0.11	0.03	0.03

Table D1.2.PP-2010-PD4. Peak Daily Cargo Vessel Emissions for Transit within the POLA Breakwater - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.01	0.01	0.05	0.01	0.01	0.01
Subtotal	0.01	0.01	0.05	0.01	0.01	0.01
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.02	0.02	0.10	0.02	0.01	0.01
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.02	0.02	0.10	0.02	0.01	0.01
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.03	0.03	0.15	0.04	0.02	0.02
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.03	0.03	0.15	0.04	0.02	0.02
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.03	0.03	0.19	0.04	0.02	0.02
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.03	0.03	0.19	0.04	0.02	0.02
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.03	0.03	0.19	0.04	0.02	0.02
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.03	0.03	0.19	0.04	0.02	0.02

Table D1.2.PP-2010-PD5. Peak Daily Cargo Vessel Emissions for Docking Activities - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.00	0.00	0.01	0.00	0.00	0.00
Subtotal	0.00	0.00	0.01	0.00	0.00	0.00
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.01	0.00	0.03	0.00	0.00	0.00
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.01	0.00	0.03	0.00	0.00	0.00
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.01	0.01	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.04	0.01	0.01	0.01
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.01	0.01	0.05	0.01	0.01	0.01
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.05	0.01	0.01	0.01
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.01	0.01	0.05	0.01	0.01	0.01
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.01	0.01	0.05	0.01	0.01	0.01

Table D1.2.PP-2010-PD6. Peak Daily Shifting Emissions for Cargo Vessels within the POLA Breakwater - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Transit	-	-	-	-	-	-
Docking	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table D1.2.PP-2010-PD7. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year (1)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.00	0.00	0.05	0.04	0.01	0.00
Subtotal	0.00	0.00	0.05	0.04	0.01	0.00
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.08	0.01	0.01
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.09	0.08	0.01	0.01
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.11	0.01	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.14	0.11	0.01	0.01
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.00	0.01	0.15	0.12	0.01	0.01
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.15	0.12	0.01	0.01
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.00	0.01	0.15	0.12	0.01	0.01
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.15	0.12	0.01	0.01

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

(2) Assumes 25/50/75/80% VSRP compliance rates for years 2003/2007/2010/post-2014.

Table D1.2.PP-2010-PD8. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the Precautionary Area - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year (1)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.00	0.00	0.03	0.02	0.00	0.00
Subtotal	0.00	0.00	0.03	0.02	0.00	0.00
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.06	0.04	0.01	0.00
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.06	0.04	0.01	0.00
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.06	0.01	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.09	0.06	0.01	0.01
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.00	0.01	0.10	0.06	0.01	0.01
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.10	0.06	0.01	0.01
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.00	0.01	0.10	0.06	0.01	0.01
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.10	0.06	0.01	0.01

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Table D1.2.PP-2010-PD9. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting within the POLA Breakwater - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year (1)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.00	0.00	0.05	0.03	0.00	0.00
Subtotal	0.00	0.00	0.05	0.03	0.00	0.00
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.00	0.01	0.09	0.06	0.01	0.01
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.09	0.06	0.01	0.01
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.01	0.15	0.09	0.01	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.15	0.09	0.01	0.01
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.00	0.01	0.16	0.10	0.01	0.01
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.16	0.10	0.01	0.01
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.00	0.01	0.16	0.10	0.01	0.01
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.01	0.16	0.10	0.01	0.01

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Table D1.2.PP-2010-PD10. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Docking within the POLA Breakwater - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year (1)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.00	0.00	0.01	0.01	0.00	0.00
Subtotal	0.00	0.00	0.01	0.01	0.00	0.00
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.03	0.02	0.00	0.00
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.03	0.02	0.00	0.00
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.03	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.04	0.03	0.00	0.00
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.00	0.00	0.04	0.03	0.00	0.00
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.04	0.03	0.00	0.00
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.00	0.00	0.04	0.03	0.00	0.00
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.04	0.03	0.00	0.00

Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).

Table D1.2.PP-2010-PD11. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Hoteling - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05	0.04
Containership < 3,000 TEU	0.01	0.03	0.34	0.22	0.03	0.03
Subtotal	0.03	0.07	0.92	0.59	0.08	0.07
Project Year 2007						
Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06	0.06
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05	0.04
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.04	0.10	1.30	0.83	0.11	0.10
Project Year 2010						
Containerships 8,000 - 9,000 TEU	0.02	0.06	0.77	0.49	0.06	0.06
Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06	0.06
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.04	0.11	1.50	0.96	0.12	0.11
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.02	0.06	0.77	0.49	0.06	0.06
Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06	0.06
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05	0.04
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.06	0.16	2.08	1.33	0.17	0.16
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.02	0.06	0.77	0.49	0.06	0.06
Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06	0.06
Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05	0.04
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.06	0.16	2.08	1.33	0.17	0.16

Table D1.2.PP-2010-PD12. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Shifts - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Transit	-	-	-	-	-	-
Docking	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table D1.2.PP-2010-PD13. Peak Daily Auxiliary Generator Emissions for Shifted Cargo Vessels during Hoteling - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership < 3,000 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table D1.2.PP-2010-PD14. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Fairway Zone - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2025						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-
Project Year 2038						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table D1.2.PP-2010-PD15. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the Precautionary Area - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.00	0.00	0.00	0.02	0.00	0.00
Subtotal	0.00	0.00	0.00	0.02	0.00	0.00
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.02	0.00	0.00
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.02	0.00	0.00
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.02	0.00	0.00
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.00	0.00	0.00	0.02	0.00	0.00
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.02	0.00	0.00
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.00	0.00	0.00	0.02	0.00	0.00
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.02	0.00	0.00

Table D1.2.PP-2010-PD16. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting within the POLA Breakwater - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.00	0.00	0.00	0.01	0.00	0.00
Subtotal	0.00	0.00	0.00	0.01	0.00	0.00
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.01	0.00	0.00
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.01	0.00	0.00
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.01	0.00	0.00
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.00	0.00	0.00	0.01	0.00	0.00
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.01	0.00	0.00
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.00	0.00	0.00	0.01	0.00	0.00
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.01	0.00	0.00

Table D1.2.PP-2010-PD17. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Docking within the POLA Breakwater - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	-	-	-	-	-	-
Containership < 3,000 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2007						
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2010						
Containerships 8,000 - 9,000 TEU	-	-	-	-	-	-
Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.00	0.00	0.00	0.00	0.00	0.00
Containerships 5,000 - 6,000 TEU	-	-	-	-	-	-
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.00	0.00	0.00	0.00	0.00

Table D1.2.PP-2010-PD18. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Hoteling - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Containership 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containership < 3,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Subtotal	0.00	0.03	0.09	0.40	0.01	0.01
Project Year 2007						
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.03	0.09	0.40	0.01	0.01
Project Year 2010						
Containerships 8,000 - 9,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships 3,000 - 5,000 TEU	-	-	-	-	-	-
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.03	0.09	0.40	0.01	0.01
Project Year 2025						
Containerships 8,000 - 9,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.05	0.14	0.60	0.02	0.02
Project Year 2038						
Containerships 8,000 - 9,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01	0.01
Containerships < 3,000 TEU	-	-	-	-	-	-
Subtotal	0.00	0.05	0.14	0.60	0.02	0.02

Table D1.2.PP-2010-PD19. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Shifts - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Transit	-	-	-	-	-	-
Docking	-	-	-	-	-	-
Hoteling	-	-	-	-	-	-
Subtotal	-	-	-	-	-	-

Table D1.2.PP-2010-PD20. Peak Daily Tugboat Emissions for Cargo Vessel Assists - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year (1)					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Subtotal	0.00	0.01	0.07	0.00	0.00	0.00
Project Year 2007						
Subtotal	0.00	0.01	0.07	0.00	0.00	0.00
Project Year 2010						
Subtotal	0.00	0.01	0.06	0.00	0.00	0.00
Project Year 2025						
Subtotal	0.00	0.01	0.05	0.00	0.00	0.00
Project Year 2038						
Subtotal	0.00	0.01	0.04	0.00	0.00	0.00

Note: (1) Assumes 3 tug assists per ship visit for all post-baseline years.

Table D1.2.PP-2010-PD21. Peak Daily Auxiliary Generator Emissions for Tugboats during Cargo Vessel Assists - Berths 136-147 Terminal Project - Proposed Project.

	Tons Per Year					
Project Scenario/Vessel Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Subtotal	0.00	0.00	0.01	0.00	0.00	0.00
Project Year 2007						
Subtotal (1)	0.00	0.00	0.01	0.00	0.00	0.00
Project Year 2010						
Subtotal (1)	0.00	0.00	0.01	0.00	0.00	0.00
Project Year 2025						
Subtotal (1)	0.00	0.00	0.00	0.00	0.00	0.00
Project Year 2038						
Subtotal (1)	0.00	0.00	0.00	0.00	0.00	0.00

Note: (1) Assumes 3 tug assists per ship visit for all post-baseline years.

Table D1.2.PP-2010-PD22. Peak Daily Vessel Emissions - Berths 136-147 Terminal Project - Proposed Project.

	Pounds Per Day					
Project Scenario/Emission Source	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Ships - Fairway Transit (1)	68.20	160.29	2,075.68	1,230.39	173.98	163.02
Ships - Precautionary Area Transit (1)	12.58	30.99	349.67	230.89	29.65	27.78
Ships - Harbor Transit (1)	21.63	27.88	205.13	110.08	20.90	19.59
Ships - Docking (1)	7.54	7.53	57.02	26.90	6.19	5.80
Ships - Hoteling Aux. Sources	56.55	208.08	2,019.07	1,974.70	172.70	161.82
Tugboats - Cargo Vessel Assist (1)	4.60	23.60	156.20	10.23	6.21	5.82
Subtotal	171.10	458.38	4,862.77	3,583.19	409.63	383.83
Project Year 2007						
Ships - Fairway Transit (1)	117.15	265.25	3,259.79	1,912.95	275.87	258.49
Ships - Precautionary Area Transit (1)	28.47	57.05	527.05	312.09	46.73	43.78
Ships - Harbor Transit (1)	41.30	51.73	392.08	191.07	39.74	37.23
Ships - Docking (1)	14.40	13.97	108.99	46.13	11.77	11.03
Ships - Hoteling Aux. Sources	77.90	266.79	2,789.13	2,467.77	235.72	220.87
Tugboats - Cargo Vessel Assist (1)	4.58	23.60	147.31	0.08	6.08	5.70
Subtotal	283.79	678.40	7,224.36	4,930.08	615.91	577.11
Project Year 2010						
Ships - Fairway Transit (1)	174.66	373.57	4,309.26	2,489.24	370.67	347.31
Ships - Precautionary Area Transit (1)	42.63	78.31	678.17	381.32	61.56	57.68
Ships - Harbor Transit (1)	61.07	76.78	598.63	285.79	60.06	56.28
Ships - Docking (1)	21.24	20.74	166.29	69.20	17.74	16.63
Ships - Hoteling Aux. Sources	88.73	296.57	3,179.73	2,717.86	267.69	250.82
Tugboats - Cargo Vessel Assist (1)	4.54	23.60	139.56	0.08	5.83	5.46
Subtotal	392.87	869.58	9,071.64	5,943.50	783.55	734.18
Project Year 2025						
Ships - Fairway Transit (1)	221.88	441.00	4,809.46	2,715.93	420.66	394.16
Ships - Precautionary Area Transit (1)	66.20	101.55	756.76	380.11	73.41	68.79
Ships - Harbor Transit (1)	75.26	92.06	700.04	320.30	71.14	66.66
Ships - Docking (1)	26.28	24.85	194.69	76.36	21.11	19.78
Ships - Hoteling Aux. Sources	123.57	418.66	4,426.02	3,856.81	373.42	349.89
Tugboats - Cargo Vessel Assist (1)	4.41	23.60	105.17	0.08	4.58	4.29
Subtotal	517.60	1,101.71	10,992.15	7,349.58	964.32	903.56
Project Year 2038						
Ships - Fairway Transit (1)	221.88	441.00	4,809.46	2,715.93	420.66	394.16
Ships - Precautionary Area Transit (1)	66.20	101.55	756.76	380.11	73.41	68.79
Ships - Harbor Transit (1)	75.26	92.06	700.04	320.30	71.14	66.66
Ships - Docking (1)	26.28	24.85	194.69	76.36	21.11	19.78
Ships - Hoteling Aux. Sources	123.57	418.66	4,426.02	3,856.81	373.42	349.89
Tugboats - Cargo Vessel Assist (1)	4.37	23.60	94.43	0.08	4.15	3.89
Subtotal	517.57	1,101.71	10,981.42	7,349.58	963.88	903.16

Note: (1) Includes auxiliary power emissions.

West Basin Container Terminal Daily Trips

Table D1.2.PP-2010-PD23. ADT Estimates - Berths 136-147 - Proposed Project

Alternative/Project Year	*Truck Trips*		
	Annual	*ADT*	*Peak Daily (1)*
2003 - Baseline	1,197,589	3,281	4,492
2007	1,513,063	4,145	5,675
2010	1,967,393	5,390	7,380
2025	1,880,401	5,152	7,053
2038	1,880,401	5,152	7,053

(1) = Peak Daily trips/ 266.6 days.

Table D1.2.PP-2010-PD24. On-Road Truck Operational Data for the Berths 136-147 Terminal Project - Proposed Action.

Activity/Project Scenario	*Idling Time/ Trip (Hrs) (1)*	*Miles/ Trip (2)*	*Peak Daily Trips*	*Idling Hrs/ Day*	*Miles/ Day*	*TEUs/ Day*
On-Terminal						
Year 2003 - Baseline	0.56	1.02	4,492	2,516	4,587	8,310
Year 2007	0.25	1.02	5,675	1,419	5,796	10,499
Year 2010	0.25	0.81	7,380	1,845	5,945	13,652
Year 2025	0.25	0.81	7,053	1,763	5,682	13,049
Year 2038	0.25	0.81	7,053	1,763	5,682	13,049
Off-Terminal						
Year 2003 - Baseline	0.30	32.3	4,492	1,348	145,162	
Year 2007	0.30	33.2	5,675	1,703	188,140	
Year 2010	0.30	41.7	7,380	2,214	307,790	
Year 2025	0.30	50.5	7,053	2,116	356,088	
Year 2038	0.30	50.5	7,053	2,116	356,088	

Notes: (1) 2003 on-terminal durations from PEI. Post-2003 on-terminal durations from TraPac (TraPac 2006).

(2) On-terminal mileage/trip based upon current/proposed terminal gate systems. Off-terminal miles/trip from data presented in Table D1.2.PP-2010-PD34.

Table D1.2.PP-2010-PD25. On-Road Truck Emission Factors - Berths 136-147 Terminal Project Alternatives Scenarios.

	Emission Factors (Grams/Mile)						
Project Year/Mode	*ROG*	*CO*	*NOx*	*SOx*	*DPM*		*References*
Baseline - Year 2003							
On-road Truck - Idle	17.55	41.05	96.52	0.58	2.85		(1)
On-road Truck - 10 mph	10.50	23.83	38.13	0.26	3.89		(1)
On-road Truck - 25 mph	2.25	12.68	23.38	0.17	1.57		(1)
On-road Truck - 55 mph	1.41	5.38	23.09	0.14	1.16		(1)
On-road Trucks - Composite Off-Terminal	2.74	10.87	24.74	0.17	1.64		(2)
Project Year 2007							
On-road Truck - Idle	13.97	50.79	105.98	0.06	2.23		(1)
On-road Truck - 10 mph	10.25	21.47	38.74	0.03	3.11		(1)
On-road Truck - 25 mph	2.01	10.25	23.34	0.02	1.06		(1)
On-road Truck - 55 mph	1.27	4.29	23.71	0.02	0.76		(1)
On-road Trucks - Composite Off-Terminal	2.54	8.99	25.03	0.02	1.14		(2)
Project Year 2010							
On-road Truck - Idle (Gms/Hr)	11.40	47.31	113.02	0.06	1.68		(1)
On-road Truck - 10 mph	9.21	18.92	36.27	0.03	2.55		(1)
On-road Truck - 25 mph	1.80	8.59	21.55	0.02	0.87		(1)
On-road Truck - 55 mph	1.11	3.96	21.15	0.02	0.73		(1)
On-road Truck - Composite Off-Terminal	2.33	8.23	22.90	0.02	0.99		(3)
Project Year 2025							
On-road Truck - Idle	7.75	41.59	123.25	0.06	0.22		(1)
On-road Truck - 10 mph	2.01	4.36	8.93	0.03	0.17		(1)
On-road Truck - 25 mph	0.49	1.67	5.00	0.02	0.12		(1)
On-road Truck - 55 mph	0.25	1.72	3.58	0.02	0.20		(1)
On-road Trucks - Composite Off-Terminal	0.37	1.95	5.11	0.02	0.14		(4)
Project Year 2038							
On-road Truck - Idle	7.65	41.43	123.52	0.06	0.11		(1)
On-road Truck - 10 mph	1.58	3.44	6.86	0.03	0.11		(1)
On-road Truck - 25 mph	0.39	1.30	3.83	0.02	0.09		(1)
On-road Truck - 55 mph	0.19	1.40	2.69	0.02	0.14		(1)
On-road Trucks - Composite Off-Terminal	0.47	1.54	3.91	0.02	0.10		(4)

Notes: (1) From EMFAC2007 (ARB 2006). Units in grams/mile for each project year, at 60 degrees and 50% relative humidity, except idle factors in units of grams/hour.

Based on age distribution of year 2001/2005 POLA truck fleets for years 2003/2007+, as used in the PEIs (Starcrest 2007).

(2) Based on 10% at 10 miles per hour (mph), 50% at 25 mph, and 40% at 55 mph. Although not included in this composite emission factor, 30 minutes of idling mode included in emission estimates for each truck trip.

(3) Same as (2), except based on 10% at 10 miles per hour (mph), 60% at 25 mph, and 30% at 55 mph.

Table D1.2.PP-2010-PD25a. Peak Daily Truck Emissions for the Berths 136-147 Terminal Project - Proposed Action.

	Pounds per Peak Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal (1)						
Year 2003 - Idling	97	228	535	3	16	15
Year 2003 - Driving	106	241	386	3	39	36
Subtotal - Year 2003	204	469	921	6	55	51
Year 2007 - Idling	44	159	332	0	7	6
Year 2007 - Driving	131	274	495	0	40	37
Subtotal - Year 2007	175	433	827	1	47	43
Year 2010 - Idling	46	192	460	0	7	6
Year 2010 - Driving	121	248	475	0	33	31
Subtotal - Year 2010	167	440	935	1	40	37
Year 2025 - Idling	30	162	479	0	1	1
Year 2025 - Driving	25	55	112	0	2	2
Subtotal - Year 2025	55	216	591	1	3	3
Year 2038 - Idling	30	161	480	0	0	0
Year 2038 - Driving	20	43	86	0	1	1
Subtotal - Year 2038	50	204	566	1	2	2
Off-Terminal						
Year 2003 - Idling	52	122	287	2	8	8
Year 2003 - Driving	876	3,480	7,918	53	524	482
Subtotal - Year 2003	929	3,602	8,205	55	533	490
Year 2007 - Idling	52	191	398	0	8	8
Year 2007 - Driving	1,053	3,729	10,383	8	475	437
Subtotal - Year 2007	1,106	3,919	10,781	8	483	445
Year 2010 - Idling	56	231	552	0	8	8
Year 2010 - Driving	1,584	5,586	15,542	13	674	620
Subtotal - Year 2010	1,639	5,817	16,094	14	683	628
Year 2025 - Idling	36	194	575	0	1	1
Year 2025 - Driving	289	1,528	4,013	16	112	103
Subtotal - Year 2025	325	1,722	4,588	16	113	104
Year 2038 - Idling	36	193	576	0	1	0
Year 2038 - Driving	367	1,206	3,066	16	78	71
Subtotal - Year 2038	403	1,399	3,643	16	78	72
Total Daily Truck Emissions by Project Year						
Year 2003	1,132	4,071	9,126	61	588	541
Year 2007	1,280	4,353	11,608	9	530	488
Year 2010	1,806	6,258	17,029	14	723	665
Year 2025	380	1,938	5,179	17	116	106
Year 2038	453	1,604	4,209	17	80	73

Notes: (1) On-terminal driving emissions calculated with 10 mph emission factors.

Table D1.2.PP-2010-PD26. Peak Daily Road Dust Emissions for the Berths 136-147 Terminal Project - Proposed Action.

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.32	13.91
Year 2007	104.01	17.58
Year 2010	106.68	18.03
Year 2025	101.97	17.23
Year 2038	101.97	17.23
Off-Terminal		
Year 2003 - Baseline	114.80	19.40
Year 2007	148.80	25.15
Year 2010	243.42	41.14
Year 2025	281.62	47.59
Year 2038	281.62	47.59
Combined On/Off-Terminal		
Year 2003 - Baseline	197.13	33.31
Year 2007	252.80	42.72
Year 2010	350.11	59.17
Year 2025	383.59	64.83
Year 2038	383.59	64.83

Notes: (1) 47.05 % freeway travel and 52.95% surface street travel

Table D1.2.PP-2010-PD27. Peak Daily Brake and Tire Wear Emissions for the Berths 136-147 Terminal Project - Proposed Action.

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	0.51	0.22
Year 2007	0.64	0.27
Year 2010	0.66	0.28
Year 2025	0.63	0.27
Year 2038	0.63	0.27
Off-Terminal		
Year 2003 - Baseline	16.00	6.86
Year 2007	20.74	8.90
Year 2010	33.93	14.55
Year 2025	39.25	16.84
Year 2038	39.25	16.84
Combined On/Off-Terminal		
Year 2003 - Baseline	16.51	7.08
Year 2007	21.38	9.17
Year 2010	34.58	14.84
Year 2025	39.88	17.11
Year 2038	39.88	17.11

Table D1.2.PP-2010-PD28. Peak Daily Total Non-Combustive Truck Generated PM Emissions for the Berths 136-147 Terminal Project - Proposed Action.

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.83	14.13
Year 2007	104.65	17.85
Year 2010	107.34	18.31
Year 2025	102.59	17.50
Year 2038	102.59	17.50
Off-Terminal		
Year 2003 - Baseline	130.81	26.27
Year 2007	169.53	34.04
Year 2010	277.35	55.69
Year 2025	320.87	64.43
Year 2038	320.87	64.43
Combined On/Off-Terminal		
Year 2003 - Baseline	214	40
Year 2007	274	52
Year 2010	385	74
Year 2025	423	82
Year 2038	423	82

Table D1.2.PP-2010-PD29. Emission Factors for Rail/ICTF Equipment - Berths 136-147 Terminal Project Alternatives.

Project Scenario/	*Emission Factors (Gm/Hp-Hr)*						
Equipment - Horsepower	*ROG*	*CO*	*NOx*	*SOx*	*PM*	*PM10*	*References*
Baseline - Year 2003							
Terminal Equipment - 121-175 Hp	0.83	3.39	9.15	0.10	0.52	0.52	(1)
Terminal Equipment - 176-250 Hp	0.44	1.32	6.79	0.10	0.24	0.24	(1)
Line Haul Locomotive - Year 2003	0.61	1.28	10.66	0.69	0.32	0.32	(2)
Switch Yard Locomotive - Year 2003	1.28	1.83	17.40	0.11	0.44	0.44	(2)
Year 2007							
Terminal Equipment - 121-175 Hp	0.79	3.49	8.41	0.004	0.39	0.39	(1)
Terminal Equipment - 176-250 Hp	0.57	1.60	7.07	0.004	0.29	0.29	(1)
Line Haul Locomotive - Year 2007	0.55	1.28	7.61	0.69	0.29	0.29	(2)
Switch Yard Locomotive - Tier 2 Stds.	0.60	2.40	8.10	0.005	0.23	0.23	(3)
Switch Yard Locomotive - Year 2007	1.11	1.97	15.08	0.08	0.39	0.39	(4)
Year 2010							
Terminal Equipment - 121-175 Hp	0.62	3.37	6.95	0.004	0.32	0.32	(1)
Terminal Equipment - 176-250 Hp	0.46	1.46	6.05	0.004	0.25	0.25	(1)
Line Haul Locomotive - Year 2015	0.51	1.28	7.02	0.16	0.20	0.20	(6)
Switch Yard Locomotive - Year 2015	0.60	2.40	8.10	0.005	0.23	0.23	(5)
Year 2025							
Terminal Equipment - 121-175 Hp	0.10	3.07	0.92	0.004	0.03	0.03	(1)
Terminal Equipment - 176-250 Hp	0.10	1.12	0.58	0.004	0.03	0.03	(1)
Line Haul Locomotive - Year 2025	0.39	1.28	5.73	0.005	0.144	0.14	(6)
Switch Yard Locomotive - Year 2025	0.60	2.40	8.10	0.005	0.23	0.23	(5)
Year 2038							
Terminal Equipment - 121-175 Hp	0.08	3.07	0.30	0.004	0.02	0.02	(1)
Terminal Equipment - 176-250 Hp	0.09	1.12	0.32	0.004	0.02	0.02	(1)
Line Haul Locomotive - Year 2038	0.33	1.28	5.01	0.005	0.12	0.12	(6)
Switch Yard Locomotive - Year 2038	0.60	2.40	8.10	0.005	0.23	0.23	(5)

Notes: (1) Estimated with the use of the ARB OFFROAD Model with consideration of fleet turnover with adopted future EPA off-road emission standards. Based on equipment annual Hp-Hr usages at Berths 136-147 in year 2001 (Starcrest 2005).

(2) Represents national average emission factors for line haul/switch yard locomotives for a given year (EPA 1998). ROG = THC * 1.27. Year 2003 data for switch engines = 1999 values, as current PHL fleet is pre-1973 vintage (pre-Tier 0). Year 2003 line haul/switch loco diesel fuel assumed to be 0.22/0.035% sulfur (S) (PEI pages 223 and 229), although PM emission factors for switch locos not subsequently reduced, due to the antiquated age of the PHL engines.

(3) Locomotive Emissions Final Rulemaking (EPA 1997), except PM reduced by 4% to simulate use of ULSD.

(4) Assumes fleet has an annual average of 75% Pre-Tier 0 and 25% Tier 2 standards + use of ULSD .

(5) Assumes 100% conversion of existing fleet to Tier 2 standard engines + use of ULSD.

(6) Represents average EPA emission factors for line haul locomotives for a given year + the use of 500 ppm S diesel by 2008 and ULSD by 2012, as stated in the EPA non-road diesel fuel rule. These fuels would produce 25/28% reductions in PM emissions from an assumed S fuel content of 0.2%.

Table D1.2.PP-2010-PD30. Peak Day Train Trips - Berths 136-147 Terminal Project - Proposed Project.

Project Scenario/Rail Yard	*Peak Daily Round Trips*	TEUs/ Day
Year 2003 Baseline		
To/from Berths 136-147 ICTF	-	
To/from Carson/LA Rail Yards	2	1,224
Year 2007		
To/from Berths 136-147 ICTF	-	
To/from Carson/LA Rail Yards	2	1,224
Year 2010		
To/from Berths 136-147 ICTF	1	612
To/from Carson/LA Rail Yards	2	1,224
Year 2025		
To/from Berths 136-147 ICTF	3	1,836
To/from Carson/LA Rail Yards	1	612
Year 2038		
To/from Berths 136-147 ICTF	3	1,836
To/from Carson/LA Rail Yards	1	612

Table D1.2.PP-2010-PD31. Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project - Proposed Project Year 2010.

	Tons					
ICTF/Train Direction/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Berths 136-147/Outbound						
Hostler	0.00	0.01	0.02	0.00	0.00	0.00
Top Picks	0.00	0.00	0.01	0.00	0.00	0.00
Line Haul Locomotive - Road Haul	0.01	0.03	0.14	0.00	0.00	0.00
Line Haul Locomotive - Notch 1	0.00	0.00	0.00	0.00	0.00	0.00
Yard Locomotive - Switching	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.04	0.18	0.00	0.01	0.01
Berths 136-147/Inbound						
Hostler	0.00	0.00	0.01	0.00	0.00	0.00
Top Picks	0.00	0.00	0.00	0.00	0.00	0.00
Line Haul Locomotive - Road Haul	0.01	0.03	0.14	0.00	0.00	0.00
Line Haul Locomotive - Notch 1	0.00	0.00	0.00	0.00	0.00	0.00
Subtotal	0.01	0.03	0.16	0.00	0.00	0.00
Carson or LA Railyards/Outbound						
Hostler	0.00	0.02	0.04	0.00	0.00	0.00
Top Picks	0.00	0.01	0.02	0.00	0.00	0.00
Line Haul Locomotive - Road Haul	0.02	0.05	0.27	0.01	0.01	0.01
Line Haul Locomotive - Notch 1	0.00	0.00	0.02	0.00	0.00	0.00
Yard Locomotive - Switching	0.00	0.00	0.01	0.00	0.00	0.00
Subtotal	0.03	0.08	0.35	0.01	0.01	0.01
Carson or LA Railyards/Inbound						
Hostler	0.00	0.01	0.01	0.00	0.00	0.00
Top Picks	0.00	0.00	0.01	0.00	0.00	0.00
Line Haul Locomotive - Road Haul	0.02	0.05	0.27	0.01	0.01	0.01
Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00	0.00
Subtotal	0.02	0.06	0.30	0.01	0.01	0.01
Total Tons Per Year	0.07	0.21	0.99	0.02	0.03	0.03

Table D1.2.PP-2010-PD32. Summary of Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions - Berths 136-147 Terminal Project - Proposed Project.

	Tons					
Project Scenario/Source Activity	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline Year 2003						
ICTF Equipment	0.01	0.03	0.10	0.00	0.01	0.00
Trains	0.05	0.10	0.87	0.06	0.03	0.02
Subtotal	0.06	0.14	0.97	0.06	0.03	0.03
Project Year 2007						
ICTF Equipment	0.01	0.03	0.10	0.00	0.00	0.00
Trains	0.04	0.10	0.62	0.06	0.02	0.02
Subtotal	0.05	0.14	0.72	0.06	0.03	0.03
Project Year 2010						
ICTF Equipment	0.01	0.05	0.12	0.00	0.01	0.00
Trains	0.06	0.16	0.87	0.02	0.02	0.02
Subtotal	0.07	0.21	0.99	0.02	0.03	0.03

Table D1.2.PP-2010-PD33. Peak Daily Terminal Yard TEU Throughput - Berths 136-147 Terminal Project - Proposed Project.

	Peak Daily TEUs				*Peak Daily/*
Project Year	*Wharf*	*Gate*	*Total*	*Annual TEUs*	*Annual TEUs*
2003	5,984	8,310	14,294	891,976	0.016
2007	6,732	10,499	17,231	1,091,200	0.016
2010	7,480	13,652	21,132	1,584,400	0.013
2025	11,781	13,049	24,830	2,389,000	0.010
2038	11,781	13,049	24,830	2,389,000	0.010

Table D1.2.PP-2010-PD34. Terminal Equipment Annual Emissions - Berths 136-147 Terminal Project - Proposed Project.

Project Scenario/Equipment Horsepowe	*Peak Daily Hp-Hrs*	*Annual Emissions (Tons)*					
		ROG	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Baseline - Year 2003							
Terminal Equipment - 121-175 Hp	10,493,875	9.61	39.16	105.82	1.19	6.03	5.55
Terminal Equipment - 176-250 Hp	12,581,479	6.11	18.34	94.22	1.42	3.37	3.10
Terminal Equipment - 250-500 Hp	2,417,350	1.18	3.92	18.61	0.27	0.58	0.53
Subtotal	25,492,704	16.89	61.43	218.65	2.89	9.98	9.18
Project Year 2007							
Terminal Equipment - 121-175 Hp	12,837,231	11.23	49.38	118.97	0.06	5.53	5.09
Terminal Equipment - 176-250 Hp	15,391,012	9.67	27.15	120.01	0.07	4.91	4.52
Terminal Equipment - 250-500 Hp	2,957,161	1.31	4.56	20.15	0.01	0.71	0.66
Subtotal	31,185,404	22.21	81.10	259.13	0.15	11.15	10.26
Project Year 2010							
Terminal Equipment - 121-175 Hp	18,639,323	12.83	69.29	142.88	0.09	6.66	6.13
Terminal Equipment - 176-250 Hp	22,347,347	11.30	35.91	148.97	0.11	6.07	5.58
Terminal Equipment - 250-500 Hp	4,293,720	1.64	6.22	25.18	0.02	0.98	0.90
Subtotal	45,280,390	25.77	111.41	317.03	0.22	13.70	12.61

Table D1.2.PP-2010-PD35. Terminal Equipment Peak Daily Emissions - Berths 136-147 Terminal Project - Proposed Project.

		Tons				
Project Scenario/Equipment Horsepower		*ROG*	*CO*	*NOx*	*SOx*	*PM10*
Project Year 2003						
Terminal Equipment - 121-175 Hp	168,169	0.15	0.63	1.70	0.02	0.10
Terminal Equipment - 176-250 Hp	201,624	0.10	0.29	1.51	0.02	0.05
Terminal Equipment - 250-500 Hp	38,739	0.02	0.06	0.30	0.00	0.01
Subtotal	408,533	0.27	0.98	3.50	0.05	0.16
Project Year 2007						
Terminal Equipment - 121-175 Hp	202,717	0.18	0.78	1.88	0.00	0.09
Terminal Equipment - 176-250 Hp	243,045	0.15	0.43	1.90	0.00	0.08
Terminal Equipment - 250-500 Hp	46,698	0.02	0.07	0.32	0.00	0.01
Subtotal	492,459	0.35	1.28	4.09	0.00	0.18
Project Year 2010						
Terminal Equipment - 121-175 Hp	248,605	0.17	0.92	1.91	0.00	0.09
Terminal Equipment - 176-250 Hp	298,062	0.15	0.48	1.99	0.00	0.08
Terminal Equipment - 250-500 Hp	57,268	0.02	0.08	0.34	0.00	0.01
Subtotal	603,935	0.34	1.49	4.23	0.00	0.18

Table D1.2.PP-2010-PD36. On-Road Truck Trip Vehicle Miles Travelled - Berths 136-147 Terminal Project - Proposed Project.

Year	*B136-149 Throughput (TEUs)*	*B136-149 ICTF Thruput (TEUs) (1)*	*TEUs to Offsite Railyard (2)*	*TEUs to Local Deilveries*	*Truck Trips to Offsite Railyard (2)*	*Local Truck Trips (3)*	*Truck Miles to Offsite Railyard (4)*	*Local Truck Trip Miles (5)*	*Composite VMT/ Truck Trip*
Baseline - Year 2003	891,976	-	445,988	445,988	598,795	598,795	9.6	55.0	32.3
Year 2007	1,091,200	-	545,600	545,600	756,532	756,532	11.3	55.0	33.2
Year 2010	1,584,400	188,339	424,619	971,442	598,393	1,369,000	11.3	55.0	41.7
Year 2025	2,389,000	700,810	174,397	1,513,793	194,253	1,686,148	11.3	55.0	50.5
Year 2038	2,389,000	700,810	174,397	1,513,793	194,253	1,686,148	11.3	55.0	50.5

(1) Peak Daily throughput estimates from Rail Master Plan.

(2) Based on 50/50/26.8/6.7/7.3% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(3) Based on 50/50/61.4/62.1/63.4% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(4) Assumes an even split to Carson ICTF (4.5 miles) and LA railyards (18 miles) = 11.3 miles/trip

(5) Average local trip length with origin/destination at the POLA.

Table D1.2.PP-2010-PD37. Peak Daily Operational Emissions - Berths 136-147 Terminal Project - Proposed Project.

	Pounds per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Year 2003 Baseline						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	57	208	2,019	1,975	173	162
Tugboats - Cargo Vessel Assist (1)	5	24	156	10	6	6
Terminal Equipment	542	1,969	7,008	92	320	294
On-road Trucks	1,132	4,071	9,126	61	801	581
Trains	100	208	1,737	111	52	48
Railyard Equipment	17	63	202	3	10	9
Commuting	12	160	20	0	12	11
Pier A Railyard	4	6	55	1	1	1
Year 2003 Total	1,977	6,935	23,010	3,851	1,607	1,329
Project Year 2007						
Ships - Fairway Transit (1)	117	265	3,260	1,913	276	258
Ships - Precautionary Area Transit (1)	28	57	527	312	47	44
Ships - Harbor Transit (1)	41	52	392	191	40	37
Ships - Docking (1)	14	14	109	46	12	11
Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236	221
Tugboats - Cargo Vessel Assist (1)	5	24	147	0	6	6
Terminal Equipment	702	2,561	8,184	5	352	324
On-road Trucks	1,280	4,353	11,608	9	804	539
Trains	89	208	1,245	111	47	43
Railyard Equipment	17	67	193	0	9	8
Commuting	10	140	18	0	15	14
Pier A Railyard	4	7	54	1	1	1
Project Year 2007 Total	2,387	8,015	28,527	5,055	1,845	1,507
Net Change from Existing Conditions	410	1,080	5,517	1,205	238	178
Net Change from NFAB Year 2007	2,387	8,015	28,527	5,055	1,845	1,507
Project Year 2010						
Ships - Fairway Transit (1)	175	374	4,309	2,489	371	347
Ships - Precautionary Area Transit (1)	43	78	678	381	62	58
Ships - Harbor Transit (1)	61	77	599	286	60	56
Ships - Docking (1)	21	21	166	69	18	17
Ships - Hoteling Aux. Sources	89	297	3,180	2,718	268	251
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6	5
Terminal Equipment	688	2,972	8,457	6	366	336
On-road Trucks	1,806	6,258	17,029	14	1,107	739
Trains	126	320	1,739	39	48	44
Railyard Equipment	21	96	243	0	11	10
Commuting	8	109	14	0	24	22
Pier A Railyard	2	9	30	0	1	1
Project Year 2010 Total	3,044	10,633	36,584	6,003	2,341	1,887
Net Change from Existing Conditions	1,066	3,698	13,573	2,152	734	558
Net Change from NFAB Year 2010	1,706	5,506	19,533	2,956	1,216	1,075

	AO	AP	AQ	AR	AS	AT
1	**Table D1.2.PP-Mit-2010-PD1. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths**					
2	**Terminal Project Mitigated Project - Vessels that Comply with Proposed VSRP.**					
3		*Tons Per Year*				
4	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
5	*Year 2003 Baseline*					
6	Containership 3,000 - 5,000 TEU					
7	Containership < 3,000 TEU					
8	**Subtotal**	**-**	**-**	**-**	**-**	**-**
9	*Project Year 2007*					
10	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
11	Containerships 3,000 - 5,000 TEU					
12	Containerships < 3,000 TEU	0.03	0.08	0.99	0.57	0.08
13	**Subtotal**	**0.03**	**0.08**	**0.99**	**0.57**	**0.08**
14	*Project Year 2010*					
15	Containerships 8,000 - 9,000 TEU					
16	Containerships 5,000 - 6,000 TEU	0.06	0.12	1.01	0.43	0.08
17	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
18	Containerships < 3,000 TEU					
19	**Subtotal**	**0.06**	**0.12**	**1.01**	**0.43**	**0.08**
20	*Project Year 2025*					
21	Containerships 8,000 - 9,000 TEU					
22	Containerships 5,000 - 6,000 TEU	0.06	0.12	0.93	0.04	0.03
23	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
24	Containerships < 3,000 TEU					
25	**Subtotal**	**0.06**	**0.12**	**0.93**	**0.04**	**0.03**
26	*Project Year 2038*					
27	Containerships 8,000 - 9,000 TEU					
28	Containerships 5,000 - 6,000 TEU	0.06	0.12	0.93	0.04	0.03
29	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
30	Containerships < 3,000 TEU					
31	**Subtotal**	**0.06**	**0.12**	**0.93**	**0.04**	**0.03**
32	Note: (1) Assumes 100% VSRP compliance rates for years 2007 and thereafter.					
33	(2) Fuel types assumed for each project year identified in Table D3-A1.1					

	AO	AP	AQ	AR	AS	AT
36	**Table D1.2.PP-Mit-2010-PD2. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berths**					
37	**Terminal Project Mitigated Project - Non-Compliant Vessels with the Proposed VSRP.**					
38		*Tons Per Year*				
39	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
40	*Year 2003 Baseline*					
41	Containership 3,000 - 5,000 TEU					
42	Containership < 3,000 TEU					
43	**Subtotal**	-	-	-	-	-
44	*Project Year 2007*					
45	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
46	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
47	Containerships < 3,000 TEU	-	-	-	-	-
48	**Subtotal**	-	-	-	-	-
49	*Project Year 2010*					
50	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
51	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
52	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
53	Containerships < 3,000 TEU	-	-	-	-	-
54	**Subtotal**	-	-	-	-	-
55	*Project Year 2010*					
56	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
57	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
58	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
59	Containerships < 3,000 TEU	-	-	-	-	-
60	**Subtotal**	-	-	-	-	-
61	*Project Year 2038*					
62	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
63	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
64	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
65	Containerships < 3,000 TEU	-	-	-	-	-
66	**Subtotal**	-	-	-	-	-
67	Note: (1) Assumes 100% VSRP compliance rates for years 2007 and thereafter.					
68	(2) Without slide valves					
69						

	AO	AP	AQ	AR	AS	AT
71	**Table D1.2.PP-Mit-2010-PD3. Peak Daily Cargo Vessel Emissions within the POLA Precautionary**					
72	**Area - Berths 136-147 Terminal Project - Mitigated Project.**					
73		*Tons Per Year*				
74	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
75	*Year 2003 Baseline*					
76	Containership 3,000 - 5,000 TEU					
77	Containership < 3,000 TEU					
78	**Subtotal**	-	-	-	-	-
79	*Project Year 2007*					
80	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
81	Containerships 3,000 - 5,000 TEU					
82	Containerships < 3,000 TEU	0.01	0.01	0.14	0.08	0.01
83	**Subtotal**	**0.01**	**0.01**	**0.14**	**0.08**	**0.01**
84	*Project Year 2010*					
85	Containerships 8,000 - 9,000 TEU					
86	Containerships 5,000 - 6,000 TEU	0.02	0.03	0.24	0.09	0.02
87	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
88	Containerships < 3,000 TEU					
89	**Subtotal**	**0.02**	**0.03**	**0.24**	**0.09**	**0.02**
90	*Project Year 2025*					
91	Containerships 8,000 - 9,000 TEU					
92	Containerships 5,000 - 6,000 TEU	0.02	0.03	0.22	0.01	0.01
93	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
94	Containerships < 3,000 TEU					
95	**Subtotal**	**0.02**	**0.03**	**0.22**	**0.01**	**0.01**
96	*Project Year 2038*					
97	Containerships 8,000 - 9,000 TEU					
98	Containerships 5,000 - 6,000 TEU	0.02	0.03	0.22	0.01	0.01
99	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
100	Containerships < 3,000 TEU					
101	**Subtotal**	**0.02**	**0.03**	**0.22**	**0.01**	**0.01**
102	(2) Without slide valves					

	AO	AP	AQ	AR	AS	AT
104	**Table D1.2.PP-Mit-2010-PD4. Peak Daily Cargo Vessel Emissions for Transit within the POLA**					
105	**Breakwater - Berths 136-147 Terminal Project - Mitigated Project.**					
106		*Tons Per Year*				
107	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
108	*Year 2003 Baseline*					
109	Containership 3,000 - 5,000 TEU					
110	Containership < 3,000 TEU					
111	**Subtotal**	**-**	**-**	**-**	**-**	**-**
112	*Project Year 2007*					
113	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
114	Containerships 3,000 - 5,000 TEU					
115	Containerships < 3,000 TEU	0.01	0.01	0.05	0.01	0.01
116	**Subtotal**	**0.01**	**0.01**	**0.05**	**0.01**	**0.01**
117	*Project Year 2010*					
118	Containerships 8,000 - 9,000 TEU					
119	Containerships 5,000 - 6,000 TEU	0.03	0.03	0.15	0.03	0.02
120	Containerships 3,000 - 5,000 TEU					
121	Containerships < 3,000 TEU					
122	**Subtotal**	**0.03**	**0.03**	**0.15**	**0.03**	**0.02**
123	*Project Year 2025*					
124	Containerships 8,000 - 9,000 TEU					
125	Containerships 5,000 - 6,000 TEU	0.03	0.03	0.13	0.00	0.01
126	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
127	Containerships < 3,000 TEU					
128	**Subtotal**	**0.03**	**0.03**	**0.13**	**0.00**	**0.01**
129	*Project Year 2038*					
130	Containerships 8,000 - 9,000 TEU					
131	Containerships 5,000 - 6,000 TEU	0.03	0.03	0.13	0.00	0.01
132	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
133	Containerships < 3,000 TEU					
134	**Subtotal**	**0.03**	**0.03**	**0.13**	**0.00**	**0.01**

	AO	AP	AQ	AR	AS	AT
136	**Table D1.2.PP-Mit-2010-PD5. Peak Daily Cargo Vessel Emissions for Docking Activities -**					
137	**Berths 136-147 Terminal Project - Mitigated Project.**					
138		*Tons Per Year*				
139	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
140	*Year 2003 Baseline*					
141	Containership 3,000 - 5,000 TEU					
142	Containership < 3,000 TEU					
143	**Subtotal**	**-**	**-**	**-**	**-**	**-**
144	*Project Year 2007*					
145	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
146	Containerships 3,000 - 5,000 TEU					
147	Containerships < 3,000 TEU	0.00	0.00	0.01	0.00	0.00
148	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
149	*Project Year 2010*					
150	Containerships 8,000 - 9,000 TEU					
151	Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.00	0.00
152	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
153	Containerships < 3,000 TEU					
154	**Subtotal**	**0.01**	**0.01**	**0.04**	**0.00**	**0.00**
155	*Project Year 2025*					
156	Containerships 8,000 - 9,000 TEU					
157	Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.00	0.00
158	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
159	Containerships < 3,000 TEU					
160	**Subtotal**	**0.01**	**0.01**	**0.04**	**0.00**	**0.00**
161	*Project Year 2038*					
162	Containerships 8,000 - 9,000 TEU					
163	Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.00	0.00
164	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
165	Containerships < 3,000 TEU					
166	**Subtotal**	**0.01**	**0.01**	**0.04**	**0.00**	**0.00**
167	(2) Without slide valves					
168						
169	**Table D1.2.PP-Mit-2010-PD6. Peak Daily Shifting Emissions for Cargo Vessels within the POLA**					
170	**Breakwater - Berths 136-147 Terminal Project - Mitigated Project.**					
171		*Tons Per Year*				
172	*Project Scenario/Vessel Mode*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
173	*Year 2003 Baseline*					
174	Transit					
175	Docking					
176	**Subtotal**	**-**	**-**	**-**	**-**	**-**

	AO	AP	AQ	AR	AS	AT
179	**Table D1.2.PP-Mit-2010-PD7. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the**					
180	**Fairway Zone - Berths 136-147 Terminal Project Mitigated Project - Vessels that Comply with VSRP.**					
181		*Tons Per Year (1)*				
182	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
183	*Year 2003 Baseline*					
184	Containership 3,000 - 5,000 TEU					
185	Containership < 3,000 TEU					
186	**Subtotal**	**-**	**-**	**-**	**-**	**-**
187	*Project Year 2007*					
188	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
189	Containerships 3,000 - 5,000 TEU					
190	Containerships < 3,000 TEU	0.00	0.00	0.05	0.04	0.01
191	**Subtotal**	**0.00**	**0.00**	**0.05**	**0.04**	**0.01**
192	*Project Year 2010*					
193	Containerships 8,000 - 9,000 TEU					
194	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.17	0.09	0.01
195	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
196	Containerships < 3,000 TEU					
197	**Subtotal**	**0.00**	**0.01**	**0.17**	**0.09**	**0.01**
198	*Project Year 2025*					
199	Containerships 8,000 - 9,000 TEU					
200	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.16	0.01	0.00
201	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
202	Containerships < 3,000 TEU					
203	**Subtotal**	**0.00**	**0.01**	**0.16**	**0.01**	**0.00**
204	*Project Year 2038*					
205	Containerships 8,000 - 9,000 TEU					
206	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.16	0.01	0.00
207	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
208	Containerships < 3,000 TEU					
209	**Subtotal**	**0.00**	**0.01**	**0.16**	**0.01**	**0.00**
210	Note: (1) Fuel types assumed for each project year identified in Table D3-A1.1					
211	Note: (1) Assumes 100% VSRP compliance rates for years 2007 and thereafter.					

	AO	AP	AQ	AR	AS	AT
214	**Table D1.2.PP-Mit-2010-PD8. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting the**					
215	**Zone - Berths 136-147 Terminal Project Mitigated Project - Non-Compliant Vessels within VSRP.**					
216		*Tons Per Year (1)*				
217	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
218	*Year 2003 Baseline*					
219	Containership 3,000 - 5,000 TEU					
220	Containership < 3,000 TEU					
221	**Subtotal**	-	-	-	-	-
222	*Project Year 2007*					
223	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
224	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
225	Containerships < 3,000 TEU	-	-	-	-	-
226	**Subtotal**	-	-	-	-	-
227	*Project Year 2010*					
228	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
229	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
230	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
231	Containerships < 3,000 TEU	-	-	-	-	-
232	**Subtotal**	-	-	-	-	-
233	*Project Year 2010*					
234	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
235	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
236	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
237	Containerships < 3,000 TEU	-	-	-	-	-
238	**Subtotal**	-	-	-	-	-
239	*Project Year 2038*					
240	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
241	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
242	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
243	Containerships < 3,000 TEU	-	-	-	-	-
244	**Subtotal**	-	-	-	-	-
245	Note: (1) Assumes 100% VSRP compliance rates for years 2007 and thereafter.					
246	(2) Fuel types assumed for each project year identified in Table D3-A1.1					

	AO	AP	AQ	AR	AS	AT
249	**Table D1.2.PP-Mit-2010-PD9. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting**					
250	**the Precautionary Area - Berths 136-147 Terminal Project - Mitigated Project.**					
251		*Tons Per Year (1)*				
252	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
253	*Year 2003 Baseline*					
254	Containership 3,000 - 5,000 TEU					
255	Containership < 3,000 TEU					
256	**Subtotal**	**-**	**-**	**-**	**-**	**-**
257	*Project Year 2007*					
258	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
259	Containerships 3,000 - 5,000 TEU					
260	Containerships < 3,000 TEU	0.00	0.00	0.03	0.02	0.00
261	**Subtotal**	**0.00**	**0.00**	**0.03**	**0.02**	**0.00**
262	*Project Year 2010*					
263	Containerships 8,000 - 9,000 TEU					
264	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.05	0.01
265	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
266	Containerships < 3,000 TEU					
267	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.05**	**0.01**
268	*Project Year 2025*					
269	Containerships 8,000 - 9,000 TEU					
270	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.01	0.00
271	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
272	Containerships < 3,000 TEU					
273	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.01**	**0.00**
274	*Project Year 2038*					
275	Containerships 8,000 - 9,000 TEU					
276	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.09	0.01	0.00
277	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
278	Containerships < 3,000 TEU					
279	**Subtotal**	**0.00**	**0.01**	**0.09**	**0.01**	**0.00**
280	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					

	AO	AP	AQ	AR	AS	AT
282	**Table D1.2.PP-Mit-2010-PD10. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Transiting**					
283	**within the POLA Breakwater - Berths 136-147 Terminal Project - Mitigated Project.**					
284		*Tons Per Year (1)*				
285	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
286	*Year 2003 Baseline*					
287	Containership 3,000 - 5,000 TEU					
288	Containership < 3,000 TEU					
289	**Subtotal**	**-**	**-**	**-**	**-**	**-**
290	*Project Year 2007*					
291	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
292	Containerships 3,000 - 5,000 TEU					
293	Containerships < 3,000 TEU	0.00	0.00	0.05	0.03	0.00
294	**Subtotal**	**0.00**	**0.00**	**0.05**	**0.03**	**0.00**
295	*Project Year 2010*					
296	Containerships 8,000 - 9,000 TEU					
297	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.15	0.08	0.01
298	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
299	Containerships < 3,000 TEU					
300	**Subtotal**	**0.00**	**0.01**	**0.15**	**0.08**	**0.01**
301	*Project Year 2025*					
302	Containerships 8,000 - 9,000 TEU					
303	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.01	0.00
304	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
305	Containerships < 3,000 TEU					
306	**Subtotal**	**0.00**	**0.01**	**0.14**	**0.01**	**0.00**
307	*Project Year 2038*					
308	Containerships 8,000 - 9,000 TEU					
309	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.14	0.01	0.00
310	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
311	Containerships < 3,000 TEU					
312	**Subtotal**	**0.00**	**0.01**	**0.14**	**0.01**	**0.00**
313	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					

	AO	AP	AQ	AR	AS	AT
315	**Table D1.2.PP-Mit-2010-PD11. Peak Daily Auxiliary Generator Emissions for Cargo Vessels Docking with**					
316	**the POLA Breakwater - Berths 136-147 Terminal Project - Mitigated Project.**					
317		*Tons Per Year (1)*				
318	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
319	*Year 2003 Baseline*					
320	Containership 3,000 - 5,000 TEU					
321	Containership < 3,000 TEU					
322	**Subtotal**	**-**	**-**	**-**	**-**	**-**
323	*Project Year 2007*					
324	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
325	Containerships 3,000 - 5,000 TEU					
326	Containerships < 3,000 TEU	0.00	0.00	0.01	0.01	0.00
327	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.01**	**0.00**
328	*Project Year 2010*					
329	Containerships 8,000 - 9,000 TEU					
330	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.02	0.00
331	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
332	Containerships < 3,000 TEU					
333	**Subtotal**	**0.00**	**0.00**	**0.04**	**0.02**	**0.00**
334	*Project Year 2025*					
335	Containerships 8,000 - 9,000 TEU					
336	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.00	0.00
337	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
338	Containerships < 3,000 TEU					
339	**Subtotal**	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**
340	*Project Year 2038*					
341	Containerships 8,000 - 9,000 TEU					
342	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.04	0.00	0.00
343	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
344	Containerships < 3,000 TEU					
345	**Subtotal**	**0.00**	**0.00**	**0.04**	**0.00**	**0.00**
346	Note: (1) Assumes 37/63% residual/diesel fuel usage (PEI Table 2.3).					

	AO	AP	AQ	AR	AS	AT
349	**Table D1.2.PP-Mit-2010-PD12. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Hoteling -**					
350	**Berths 136-147 Terminal Project - Mitigated Project.**					
351		*Tons Per Year*				
352	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
353	*Year 2003 Baseline*					
354	Containership 3,000 - 5,000 TEU					
355	Containership < 3,000 TEU					
356	**Subtotal**	**-**	**-**	**-**	**-**	**-**
357	*Project Year 2007*					
358	Containerships 5,000 - 6,000 TEU	0.02	0.06	0.73	0.46	0.06
359	Containerships 3,000 - 5,000 TEU	0.02	0.04	0.58	0.37	0.05
360	Containerships < 3,000 TEU	-	-	-	-	-
361	**Subtotal**	**0.04**	**0.10**	**1.30**	**0.83**	**0.11**
362	*Project Year 2010*					
363	Containerships 8,000 - 9,000 TEU	0.01	0.04	0.46	0.25	0.03
364	Containerships 5,000 - 6,000 TEU	0.01	0.03	0.43	0.24	0.03
365	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
366	Containerships < 3,000 TEU					
367	**Subtotal**	**0.02**	**0.07**	**0.89**	**0.49**	**0.06**
368	*Project Year 2025*					
369	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
370	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
371	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
372	Containerships < 3,000 TEU	-	-	-	-	-
373	**Subtotal**	**-**	**-**	**-**	**-**	**-**
374	*Project Year 2038*					
375	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
376	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
377	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
378	Containerships < 3,000 TEU	-	-	-	-	-
379	**Subtotal**	**-**	**-**	**-**	**-**	**-**
380						
381	**Table D1.2.PP-Mit-2010-PD13. Peak Daily Auxiliary Generator Emissions during Cargo Vessel Shifts -**					
382	**Berths 136-147 Terminal Project - Mitigated Project.**					
383		*Tons Per Year*				
384	*Project Scenario/Vessel Mode*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
385	*Year 2003 Baseline*					
386	Transit					
387	Docking					
388	**Subtotal**	**-**	**-**	**-**	**-**	**-**

	AO	AP	AQ	AR	AS	AT
391	**Table D1.2.PP-Mit-2010-PD14. Peak Daily Auxiliary Generator Emissions for Shifted Cargo Vessels**					
392	**during Hoteling - Berths 136-147 Terminal Project - Mitigated Project.**					
393		*Tons Per Year*				
394	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
395	*Year 2003 Baseline*					
396	Containership < 3,000 TEU					
397	**Subtotal**	-	-	-	-	-
398						
399						
400						
401	**Table D1.2.PP-Mit-2010-PD15. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the**					
402	**Fairway Zone - Berths 136-147 Terminal Project - Mitigated Project - VSRP-Compliant.**					
403		*Tons Per Year (1)*				
404	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
405	*Year 2003 Baseline*					
406	Containership 3,000 - 5,000 TEU					
407	Containership < 3,000 TEU					
408	**Subtotal**	-	-	-	-	-
409	*Project Year 2007*					
410	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
411	Containerships 3,000 - 5,000 TEU					
412	Containerships < 3,000 TEU	-	-	-	-	-
413	**Subtotal**	-	-	-	-	-
414	*Project Year 2010*					
415	Containerships 8,000 - 9,000 TEU					
416	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
417	Containerships 3,000 - 5,000 TEU					
418	Containerships < 3,000 TEU					
419	**Subtotal**	-	-	-	-	-
420	*Project Year 2025*					
421	Containerships 8,000 - 9,000 TEU					
422	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
423	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
424	Containerships < 3,000 TEU					
425	**Subtotal**	-	-	-	-	-
426	*Project Year 2038*					
427	Containerships 8,000 - 9,000 TEU					
428	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
429	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
430	Containerships < 3,000 TEU					
431	**Subtotal**	-	-	-	-	-
432	Notes: (1) Assumes 25/50/95% VSRP compliance rates for years 2003/2007/post-2007.					
433	(2) Does not assume use of low-sulfur fuels.					

	AO	AP	AQ	AR	AS	AT
435	**Table D1.2.PP-Mit-2010-PD16. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting the**					
436	**Fairway Zone - Berths 136-147 Terminal Project - Mitigated Project - VSRP-Non-Compliant.**					
437		*Tons Per Year*				
438	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
439	*Year 2003 Baseline*					
440	Containership 3,000 - 5,000 TEU					
441	Containership < 3,000 TEU					
442	**Subtotal**	-	-	-	-	-
443	*Project Year 2007*					
444	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
445	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
446	Containerships < 3,000 TEU	-	-	-	-	-
447	**Subtotal**	-	-	-	-	-
448	*Project Year 2010*					
449	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
450	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
451	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
452	Containerships < 3,000 TEU	-	-	-	-	-
453	**Subtotal**	-	-	-	-	-
454	*Project Year 2010*					
455	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
456	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
457	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
458	Containerships < 3,000 TEU	-	-	-	-	-
459	**Subtotal**	-	-	-	-	-
460	*Project Year 2038*					
461	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
462	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
463	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
464	Containerships < 3,000 TEU	-	-	-	-	-
465	**Subtotal**	-	-	-	-	-
466	Note: (1) Assumes 75/50/05% VSRP non-compliance rates for years 2003/2007/post-2007.					
467	(2) Does not assume use of low-sulfur fuels.					

	AO	AP	AQ	AR	AS	AT
469	**Table D1.2.PP-Mit-2010-PD17. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting**					
470	**the Precautionary Area - Berths 136-147 Terminal Project - Mitigated Project.**					
471		*Tons Per Year*				
472	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
473	*Year 2003 Baseline*					
474	Containership 3,000 - 5,000 TEU					
475	Containership < 3,000 TEU					
476	**Subtotal**	**-**	**-**	**-**	**-**	**-**
477	*Project Year 2007*					
478	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
479	Containerships 3,000 - 5,000 TEU					
480	Containerships < 3,000 TEU	0.00	0.00	0.00	0.02	0.00
481	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
482	*Project Year 2010*					
483	Containerships 8,000 - 9,000 TEU					
484	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
485	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
486	Containerships < 3,000 TEU					
487	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
488	*Project Year 2025*					
489	Containerships 8,000 - 9,000 TEU					
490	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
491	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
492	Containerships < 3,000 TEU					
493	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**
494	*Project Year 2038*					
495	Containerships 8,000 - 9,000 TEU					
496	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.02	0.00
497	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
498	Containerships < 3,000 TEU					
499	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.02**	**0.00**

	AO	AP	AQ	AR	AS	AT
501	**Table D1.2.PP-Mit-2010-PD18. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Transiting within**					
502	**the POLA Breakwater - Berths 136-147 Terminal Project - Mitigated Project.**					
503		*Tons Per Year*				
504	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
505	*Year 2003 Baseline*					
506	Containership 3,000 - 5,000 TEU					
507	Containership < 3,000 TEU					
508	**Subtotal**	-	-	-	-	-
509	*Project Year 2007*					
510	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
511	Containerships 3,000 - 5,000 TEU					
512	Containerships < 3,000 TEU	0.00	0.00	0.00	0.01	0.00
513	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
514	*Project Year 2010*					
515	Containerships 8,000 - 9,000 TEU					
516	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
517	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
518	Containerships < 3,000 TEU					
519	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
520	*Project Year 2025*					
521	Containerships 8,000 - 9,000 TEU					
522	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
523	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
524	Containerships < 3,000 TEU					
525	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**
526	*Project Year 2038*					
527	Containerships 8,000 - 9,000 TEU					
528	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.01	0.00
529	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
530	Containerships < 3,000 TEU					
531	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**

	AO	AP	AQ	AR	AS	AT
533	**Table D1.2.PP-Mit-2010-PD19. Peak Daily Auxiliary Boiler Emissions for Cargo Vessels Docking within th**					
534	**POLA Breakwater - Berths 136-147 Terminal Project - Mitigated Project.**					
535		*Tons Per Year*				
536	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
537	*Year 2003 Baseline*					
538	Containership 3,000 - 5,000 TEU					
539	Containership < 3,000 TEU					
540	**Subtotal**	**-**	**-**	**-**	**-**	**-**
541	*Project Year 2007*					
542	Containerships 5,000 - 6,000 TEU	-	-	-	-	-
543	Containerships 3,000 - 5,000 TEU					
544	Containerships < 3,000 TEU	0.00	0.00	0.00	0.00	0.00
545	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
546	*Project Year 2010*					
547	Containerships 8,000 - 9,000 TEU					
548	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
549	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
550	Containerships < 3,000 TEU					
551	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
552	*Project Year 2025*					
553	Containerships 8,000 - 9,000 TEU					
554	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
555	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
556	Containerships < 3,000 TEU					
557	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
558	*Project Year 2038*					
559	Containerships 8,000 - 9,000 TEU					
560	Containerships 5,000 - 6,000 TEU	0.00	0.00	0.00	0.00	0.00
561	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
562	Containerships < 3,000 TEU					
563	**Subtotal**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
564	(2) Does not assume use of low-sulfur fuels.					

	AO	AP	AQ	AR	AS	AT
567	**Table D1.2.PP-Mit-2010-PD20. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Hoteling -**					
568	**Berths 136-147 Terminal Project - Mitigated Project.**					
569		*Tons Per Year*				
570	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
571	*Year 2003 Baseline*					
572	Containership 3,000 - 5,000 TEU					
573	Containership < 3,000 TEU					
574	**Subtotal**	**-**	**-**	**-**	**-**	**-**
575	*Project Year 2007*					
576	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
577	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
578	Containerships < 3,000 TEU	-	-	-	-	-
579	**Subtotal**	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
580	*Project Year 2010*					
581	Containerships 8,000 - 9,000 TEU	0.00	0.02	0.05	0.20	0.01
582	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
583	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
584	Containerships < 3,000 TEU					
585	**Subtotal**	**0.00**	**0.03**	**0.09**	**0.40**	**0.01**
586	*Project Year 2025*					
587	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
588	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
589	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
590	Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
591	**Subtotal**	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**
592	*Project Year 2038*					
593	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
594	Containerships 5,000 - 6,000 TEU	0.00	0.02	0.05	0.20	0.01
595	Containerships 3,000 - 5,000 TEU	0.00	0.02	0.05	0.20	0.01
596	Containerships < 3,000 TEU	0.00	0.02	0.05	0.20	0.01
597	**Subtotal**	**0.00**	**0.05**	**0.14**	**0.60**	**0.02**
598	(2) Does not assume use of low-sulfur fuels.					
599	**Table D1.2.PP-Mit-2010-PD21. Peak Daily Auxiliary Boiler Emissions during Cargo Vessel Shifts -**					
600	**Berths 136-147 Terminal Project - Mitigated Project.**					
601		*Tons Per Year*				
602	*Project Scenario/Vessel Mode*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
603	*Year 2003 Baseline*					
604	Transit					
605	Docking					
606	Hoteling					
607	**Subtotal**	**-**	**-**	**-**	**-**	**-**

	AO	AP	AQ	AR	AS	AT
610	**Table D1.2.PP-Mit-2010-PD22. Peak Daily Tugboat Emissions for Cargo Vessel Assists -**					
611	**Berths 136-147 Terminal Project - Mitigated Project.**					
612		*Tons Per Year (1)*				
613	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
614	*Year 2003 Baseline*					
615	Containership 3,000 - 5,000 TEU					
616	Containership < 3,000 TEU					
617	**Subtotal**					
618	*Project Year 2007*					
619	**Subtotal**					
620	*Project Year 2010*					
621	**Subtotal**	**0.00**	**0.01**	**0.06**	**0.00**	**0.00**
622	*Project Year 2025*					
623	**Subtotal**					
624	*Project Year 2038*					
625	**Subtotal**					
626	Note: (1) Assumes 3 tug assists per ship visit for all post-baseline years.					
627						
628						
629	**Table D1.2.PP-Mit-2010-PD23. Peak Daily Auxiliary Generator Emissions for Tugboats during Cargo**					
630	**Vessel Assists - Berths 136-147 Terminal Project - Mitigated Project.**					
631		*Tons Per Year*				
632	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
633	*Year 2003 Baseline*					
634	Containership 3,000 - 5,000 TEU					
635	Containership < 3,000 TEU					
636	**Subtotal**					
637	*Project Year 2007*					
638	**Subtotal (1)**					
639	*Project Year 2010*					
640	**Subtotal**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**
641	*Project Year 2025*					
642	**Subtotal (1)**					
643	*Project Year 2038*					
644	**Subtotal (1)**					
645	Note: (1) Assumes 3 tug assists per ship visit for all post-baseline years.					

	AO	AP	AQ	AR	AS	AT
648	**Table D1.2.PP-Mit-2010-PD24. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berth**					
649	**Terminal Project Mitigated Project - Vessels that Comply with VSRP + Slide Valves**					
650		*Tons Per Year*				
651	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
652	*Project Year 2010*					
653	Containerships 8,000 - 9,000 TEU					
654	Containerships 5,000 - 6,000 TEU	0.05	0.12	0.94	0.43	0.07
655	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
656	Containerships < 3,000 TEU					
657	**Subtotal**	**0.05**	**0.12**	**0.94**	**0.43**	**0.07**
658	*Project Year 2025*					
659	Containerships 8,000 - 9,000 TEU					
660	Containerships 5,000 - 6,000 TEU					
661	Containerships 3,000 - 5,000 TEU					
662	Containerships < 3,000 TEU					
663	**Subtotal**	-	-	-	-	-
664	*Project Year 2038*					
665	Containerships 8,000 - 9,000 TEU					
666	Containerships 5,000 - 6,000 TEU					
667	Containerships 3,000 - 5,000 TEU					
668	Containerships < 3,000 TEU					
669	**Subtotal**	-	-	-	-	-
670	Notes: (1) Assumes 25/50/95% VSRP compliance rates for years 2003/2007/post-2007.					
671	(2) Fuel types assumed for each project year identified in Table D3-A1.1					
672						
673	**Table D1.2.PP-Mit-2010-PD25. Peak Daily Cargo Vessel Emissions within the POLA Fairway Zone - Berth**					
674	**Terminal Project Mitigated Project - Non-Compliant Vessels within VSRP + Slide Valves.**					
675		*Tons Per Year*				
676	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
677	*Project Year 2010*					
678	Containerships 8,000 - 9,000 TEU					
679	Containerships 5,000 - 6,000 TEU					
680	Containerships 3,000 - 5,000 TEU					
681	Containerships < 3,000 TEU					
682	**Subtotal**					
683	*Project Year 2010*					
684	Containerships 8,000 - 9,000 TEU					
685	Containerships 5,000 - 6,000 TEU					
686	Containerships 3,000 - 5,000 TEU					
687	Containerships < 3,000 TEU					
688	**Subtotal**					
689	*Project Year 2038*					
690	Containerships 8,000 - 9,000 TEU					
691	Containerships 5,000 - 6,000 TEU					
692	Containerships 3,000 - 5,000 TEU					
693	Containerships < 3,000 TEU					
694	**Subtotal**					
695	Note: (1) Assumes 75/50/05% VSRP non-compliance rates for years 2003/2007/post-2007.					
696	(2) Fuel types assumed for each project year identified in Table D3-A1.1					

	AO	AP	AQ	AR	AS	AT
699	**Table D1.2.PP-Mit-2010-PD26. Peak Daily Cargo Vessel Emissions within the POLA Precautionary**					
700	**Area - Berths 136-147 Terminal Project - Mitigated Project + Slide Valves.**					
701		*Tons Per Year*				
702	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
703	*Project Year 2010*					
704	Containerships 8,000 - 9,000 TEU					
705	Containerships 5,000 - 6,000 TEU	0.01	0.03	0.22	0.09	0.02
706	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
707	Containerships < 3,000 TEU					
708	**Subtotal**	**0.01**	**0.03**	**0.22**	**0.09**	**0.02**
709	*Project Year 2025*					
710	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
711	Containerships 5,000 - 6,000 TEU	0.00	0.03	0.16	0.01	0.00
712	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
713	Containerships < 3,000 TEU					
714	**Subtotal**	**0.00**	**0.03**	**0.16**	**0.01**	**0.00**
715	*Project Year 2038*					
716	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
717	Containerships 5,000 - 6,000 TEU	0.00	0.03	0.16	0.01	0.00
718	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
719	Containerships < 3,000 TEU					
720	**Subtotal**	**0.00**	**0.03**	**0.16**	**0.01**	**0.00**
721						
722						
723	**Table D1.2.PP-Mit-2010-PD27. Peak Daily Cargo Vessel Emissions for Transit within the POLA**					
724	**Breakwater - Berths 136-147 Terminal Project - Mitigated Project + Slide Valves.**					
725		*Tons Per Year*				
726	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
727	*Project Year 2010*					
728	Containerships 8,000 - 9,000 TEU					
729	Containerships 5,000 - 6,000 TEU	0.02	0.03	0.13	0.03	0.01
730	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
731	Containerships < 3,000 TEU					
732	**Subtotal**	**0.02**	**0.03**	**0.13**	**0.03**	**0.01**
733	*Project Year 2025*					
734	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
735	Containerships 5,000 - 6,000 TEU	0.01	0.03	0.10	0.00	0.00
736	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
737	Containerships < 3,000 TEU					
738	**Subtotal**	**0.01**	**0.03**	**0.10**	**0.00**	**0.00**
739	*Project Year 2038*					
740	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
741	Containerships 5,000 - 6,000 TEU	0.01	0.03	0.10	0.00	0.00
742	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
743	Containerships < 3,000 TEU					
744	**Subtotal**	**0.01**	**0.03**	**0.10**	**0.00**	**0.00**

	AO	AP	AQ	AR	AS	AT
746	**Table D1.2.PP-Mit-2010-PD28. Peak Daily Cargo Vessel Emissions for Docking Activities -**					
747	**Berths 136-147 Terminal Project - Mitigated Project + Slide Valves.**					
748		*Tons Per Year*				
749	*Project Scenario/Vessel Type*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
750	*Project Year 2010*					
751	Containerships 8,000 - 9,000 TEU					
752	Containerships 5,000 - 6,000 TEU	0.01	0.01	0.04	0.00	0.00
753	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
754	Containerships < 3,000 TEU					
755	**Subtotal**	**0.01**	**0.01**	**0.04**	**0.00**	**0.00**
756	*Project Year 2025*					
757	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
758	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.03	0.00	0.00
759	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
760	Containerships < 3,000 TEU					
761	**Subtotal**	**0.00**	**0.01**	**0.03**	**0.00**	**0.00**
762	*Project Year 2038*					
763	Containerships 8,000 - 9,000 TEU	-	-	-	-	-
764	Containerships 5,000 - 6,000 TEU	0.00	0.01	0.03	0.00	0.00
765	Containerships 3,000 - 5,000 TEU	-	-	-	-	-
766	Containerships < 3,000 TEU					
767	**Subtotal**	**0.00**	**0.01**	**0.03**	**0.00**	**0.00**

	AV	AW	AX	AY	AZ	BA
1	**Table D1.2.PP-Mit-2010-PD29. Peak Daily Vessel Emissions - Berths 136-147 Terminal Project -**					
2	**Mitigated Project.**					
3		*Tons*				
4	*Project Scenario/Emission Source*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
5	*Year 2003 Baseline*					
6	Ships - Fairway Transit (1)	-	-	-	-	-
7	Ships - Precautionary Area Transit (1)	-	-	-	-	-
8	Ships - Harbor Transit (1)	-	-	-	-	-
9	Ships - Docking (1)	-	-	-	-	-
10	Ships - Hoteling Aux. Sources	-	-	-	-	-
11	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
12	**Subtotal**	**-**	**-**	**-**	**-**	**-**
13	*Project Year 2007*					
14	Ships - Fairway Transit (1)	0.03	0.08	1.04	0.62	0.09
15	Ships - Precautionary Area Transit (1)	0.01	0.02	0.17	0.12	0.01
16	Ships - Harbor Transit (1)	0.01	0.01	0.10	0.06	0.01
17	Ships - Docking (1)	0.00	0.00	0.03	0.01	0.00
18	Ships - Hoteling Aux. Sources	0.04	0.13	1.39	1.23	0.12
19	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
20	**Subtotal**	**0.09**	**0.25**	**2.74**	**2.03**	**0.23**
21	*Project Year 2010*					
22	Ships - Fairway Transit (1)	0.06	0.13	1.11	0.52	0.08
23	Ships - Precautionary Area Transit (1)	0.02	0.04	0.32	0.16	0.02
24	Ships - Harbor Transit (1)	0.02	0.04	0.28	0.12	0.02
25	Ships - Docking (1)	0.01	0.01	0.08	0.03	0.01
26	Ships - Hoteling Aux. Sources	0.03	0.10	0.99	0.89	0.08
27	Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.07	0.00	0.00
28	**Subtotal**	**0.14**	**0.33**	**2.84**	**1.72**	**0.21**
29	*Project Year 2025*					
30	Ships - Fairway Transit (1)	0.00	0.01	0.16	0.01	0.00
31	Ships - Precautionary Area Transit (1)	0.01	0.04	0.25	0.03	0.01
32	Ships - Harbor Transit (1)	0.01	0.04	0.24	0.02	0.01
33	Ships - Docking (1)	0.00	0.01	0.07	0.01	0.00
34	Ships - Hoteling Aux. Sources	0.00	0.05	0.14	0.60	0.02
35	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
36	**Subtotal**	**0.03**	**0.15**	**0.86**	**0.67**	**0.03**
37	*Project Year 2038*					
38	Ships - Fairway Transit (1)	0.00	0.01	0.16	0.01	0.00
39	Ships - Precautionary Area Transit (1)	0.01	0.04	0.25	0.03	0.01
40	Ships - Harbor Transit (1)	0.01	0.04	0.24	0.02	0.01
41	Ships - Docking (1)	0.00	0.01	0.07	0.01	0.00
42	Ships - Hoteling Aux. Sources	0.00	0.05	0.14	0.60	0.02
43	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
44	**Subtotal**	**0.03**	**0.15**	**0.86**	**0.67**	**0.03**
45	Note: (1) Includes auxiliary power emissions.					

	AV	AW	AX	AY	AZ	BA
48	**Table D1.2.PP-Mit-2010-PD30. Mitigated Peak Daily Vessel Emissions - Berths 136-147 Terminal Project - Mitigated**					
49		*Pounds Per Peak Day*				
50	*Project Scenario/Emission Source*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*
51	*Year 2003 Baseline*					
52	Ships - Fairway Transit (1)	-	-	-	-	-
53	Ships - Precautionary Area Transit (1)	-	-	-	-	-
54	Ships - Harbor Transit (1)	-	-	-	-	-
55	Ships - Docking (1)	-	-	-	-	-
56	Ships - Hoteling Aux. Sources	-	-	-	-	-
57	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
58	**Subtotal**	**-**	**-**	**-**	**-**	**-**
59	*Project Year 2007*					
60	Ships - Fairway Transit (1)	68	160	2,076	1,230	174
61	Ships - Precautionary Area Transit (1)	13	31	350	231	30
62	Ships - Harbor Transit (1)	22	28	205	110	21
63	Ships - Docking (1)	8	8	57	27	6
64	Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236
65	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
66	**Subtotal**	**188**	**493**	**5,477**	**4,066**	**466**
67	*Project Year 2010*					
68	Ships - Fairway Transit (1)	111	260	2,212	1,041	162
69	Ships - Precautionary Area Transit (1)	35	78	632	320	48
70	Ships - Harbor Transit (1)	50	77	569	244	48
71	Ships - Docking (1)	17	21	158	59	14
72	Ships - Hoteling Aux. Sources	55	205	1,971	1,777	151
73	Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6
74	**Subtotal**	**273**	**665**	**5,681**	**3,442**	**428**
75	*Project Year 2025*					
76	Ships - Fairway Transit (1)	9	26	329	20	7
77	Ships - Precautionary Area Transit (1)	12	78	493	58	11
78	Ships - Harbor Transit (1)	19	77	482	47	12
79	Ships - Docking (1)	6	21	133	12	3
80	Ships - Hoteling Aux. Sources	8	102	273	1,198	34
81	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
82	**Subtotal**	**55**	**303**	**1,711**	**1,335**	**66**
83	*Project Year 2038*					
84	Ships - Fairway Transit (1)	9	26	329	20	7
85	Ships - Precautionary Area Transit (1)	12	78	493	58	11
86	Ships - Harbor Transit (1)	19	77	482	47	12
87	Ships - Docking (1)	6	21	133	12	3
88	Ships - Hoteling Aux. Sources	8	102	273	1,198	34
89	Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-
90	**Subtotal**	**55**	**303**	**1,711**	**1,335**	**66**
91	Note: (1) Includes auxiliary power emissions.					

	A	B	C	D	E
1	**Table D1.2.PP-Mit-2010-PD31. Ship Visit and Throughput Data - Berths 136-147 Terminal Project - Mitigated Pro**				
2		*Peak Daily*	*ax TEU Move*	*Peak Daily*	*Hoteling Time/*
3	*Project Scenario/Ship Type*	*Ship Visits*	*Peak Day (1)*	*TEU Moves*	*Visit (Hours) (2)*
4	**Baseline - Year 2003**				
5	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
6	Containerships < 3,000 TEU	1	2,992	2,992	24.0
7	**Subtotal**	**2**		**5,984**	
8	**Project Year 2007**				
9	Containerships 5,000 - 6,000 TEU	1	3,740	3,740	24.0
10	Containerships 3,000 - 5,000 TEU	1	2,992	2,992	24.0
11	Containerships < 3,000 TEU		2,992		
12	**Subtotal**	**2**		**6,732**	
13	**Project Year 2010**				
14	Containerships 8,000 - 9,000 TEU	1	4,488	4,488	24.0
15	Containerships 5,000 - 6,000 TEU	1	3,740	2,992	24.0
16	Containerships 3,000 - 5,000 TEU				
17	Containerships < 3,000 TEU				
18	**Subtotal**	**2**		**7,480**	
19	**Project Year 2025**				
20	Containerships 8,000 - 9,000 TEU				
21	Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
22	Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
23	Containerships < 3,000 TEU	1	3,927	1,963	24.0
24	**Subtotal**	**3**		**10,799**	
25	**Project Year 2038**				
26	Containerships 8,000 - 9,000 TEU				
27	Containerships 5,000 - 6,000 TEU	1	4,909	4,909	24.0
28	Containerships 3,000 - 5,000 TEU	1	3,927	3,927	24.0
29	Containerships < 3,000 TEU	1	3,927	1,963	24.0
30	**Subtotal**	**3**		**10,799**	
31	Notes: (1) Assumes that 4 cranes would service <3,000 and 3-5,000 TEU vessels @ 1600 lifts/day = 2992 TEUs/day,				
32	5 cranes would service 5-6,000 TEU vessels @ 2000 lifts/day = 3740 TEUs/day, and 6 cranes would service				
33	8-9,000 TEU vessels @ 2400 lifts/day = 4488 TEUs/day (TraPac 2006) during 16 hours of service.				
34	Beginning in year 2015, crane service time increases to 21 hours/day and 4-, 5-, and 6- crane production =				
35	3,927, 4,909, and 5,890 TEUs/day.				
36					
37					
38					

Table D1.2.PP-Mit-2010-PD32. ADT Estimates - Berths 136-147 Mitigated Project

Alternative/Project Year	*Truck Trips*		
	Annual	*ADT*	*Peak Daily (1)*
2003 - Baseline	1,197,589	3,281	4,492
2007	1,464,255	4,012	5,492
2010	1,967,393	5,390	7,380
2025	1,200,205	3,288	4,502
2038	1,200,205	3,288	4,502

(1) = Peak Daily trips/ 266.6 days.

Table D1.2.PP-Mit-2010-PD33. On-Road Truck Peak Daily Operational Data for the Berths 136-147 Terminal Project - Mitigated Project

Activity/Project Scenario	*Idling Time/ Trip (Hrs) (1)*	*Miles/ Trip (2)*	*Peak Daily Trips*	*Idling Hrs/ Day*	*Miles/ Day*	*TEUs/ Peak Day*
On-Terminal						
Year 2003 - Baseline	0.56	1.02	4,492	2,516	4,587	8,310
Year 2007	0.25	1.02	5,492	1,373	5,609	10,161
Year 2010	0.25	0.81	7,380	1,845	5,945	13,652
Year 2025	0.25	0.81	4,502	1,125	3,627	8,329
Year 2038	0.25	0.81	4,502	1,125	3,627	8,329
Off-Terminal						
Year 2003 - Baseline	0.30	32.3	4,492	1,348	145,162	
Year 2007	0.30	32.3	5,492	1,648	177,485	
Year 2010	0.30	41.2	7,380	2,214	304,042	
Year 2025	0.30	49.4	4,502	1,351	222,205	
Year 2038	0.30	49.4	4,502	1,351	222,205	

Notes: (1) 2003 on-terminal durations from PEI. Post-2003 on-terminal durations from TraPac (TraPac 2006).

(2) On-terminal mileage/trip based upon current/proposed terminal gate systems. Off-terminal miles/trip from data presented in Table D1.2.PP-Mit-PD34.

Table D1.2.PP-Mit-2010-PD34. Peak Daily Truck Emissions for the Berths 136-147 Terminal Project - Mitigated Project.

	Pounds per Day					
Location/Project Scenario - Mode	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
On-Terminal (1)						
Year 2003 - Idling	97	228	535	3	16	15
Year 2003 - Driving	106	241	386	3	39	36
Subtotal - Year 2003	204	469	921	6	55	51
Year 2007 - Idling	42	154	321	0	7	6
Year 2007 - Driving	127	266	479	0	39	35
Subtotal - Year 2007	169	419	800	1	45	42
Year 2010 - Idling	30	124	517	0	1	1
Year 2010 - Driving	31	65	141	0	6	5
Subtotal - Year 2010	61	189	658	1	7	7
Year 2025 - Idling	18	75	317	0	0	0
Year 2025 - Driving	9	20	33	0	1	1
Subtotal - Year 2025	27	95	350	0	1	1
Year 2038 - Idling	18	77	317	0	0	0
Year 2038 - Driving	9	20	33	0	1	1
Subtotal - Year 2038	27	97	350	0	1	1
Off-Terminal						
Year 2003 - Idling	52	122	287	2	8	8
Year 2003 - Driving	876	3,480	7,918	53	524	482
Subtotal - Year 2003	929	3,602	8,205	55	533	490
Year 2007 - Idling	51	185	385	0	8	7
Year 2007 - Driving	994	3,517	9,795	8	448	412
Subtotal - Year 2007	1,044	3,702	10,180	8	456	420
Year 2010 - Idling	36	149	621	0	2	2
Year 2010 - Driving	423	1,446	4,286	13	158	146
Subtotal - Year 2010	459	1,595	4,907	14	160	147
Year 2025 - Idling	21	90	381	0	0	0
Year 2025 - Driving	159	547	1,114	10	34	31
Subtotal - Year 2025	180	637	1,495	10	34	31
Year 2038 - Idling	21	93	381	0	0	0
Year 2038 - Driving	164	539	1,136	10	31	29
Subtotal - Year 2038	186	632	1,517	10	32	29
Year 2003	1,132	4,071	9,126	61	588	541
Year 2007	1,213	4,121	10,981	8	501	461
Year 2010	521	1,784	5,565	14	167	154
Year 2025	207	731	1,845	10	35	32
Year 2038	213	729	1,866	11	32	30

Notes: (1) On-terminal driving emissions calculated with 10 mph emission factors.

Table D1.2.PP-Mit-2010-PD35. Road Dust Emissions for the Berths 136-147 Terminal Project - Mitigated Project

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.32	13.91
Year 2007	100.65	17.01
Year 2010	106.68	18.03
Year 2025	65.08	11.00
Year 2038	65.08	11.00
Off-Terminal		
Year 2003 - Baseline	114.80	19.40
Year 2007	140.37	23.72
Year 2010	240.46	40.64
Year 2025	175.74	29.70
Year 2038	175.74	29.70
Combined On/Off-Terminal		
Year 2003 - Baseline	197.13	33.31
Year 2007	241.02	40.73
Year 2010	347.14	58.67
Year 2025	240.82	40.70
Year 2038	240.82	40.70

Notes: (1) 47.05 % freeway travel and 52.95% surface street travel

Table D1.2.PP-Mit-2010-PD36. Brake and Tire Wear Emissions for the Berths 136-147 Terminal Project - Mitigated Project

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	0.51	0.22
Year 2007	0.62	0.27
Year 2010	0.66	0.28
Year 2025	0.40	0.17
Year 2038	0.40	0.17
Off-Terminal		
Year 2003 - Baseline	16.00	6.86
Year 2007	19.56	8.39
Year 2010	33.51	14.38
Year 2025	24.49	10.51
Year 2038	24.49	10.51
Combined On/Off-Terminal		
Year 2003 - Baseline	16.51	7.08
Year 2007	20.18	8.66
Year 2010	34.17	14.66
Year 2025	24.89	10.68
Year 2038	24.89	10.68

Table D1.2.PP-Mit-2010-PD37. Total Non-Combustive Truck Generated PM Emissions for the Berths 136-147 Terminal Project - Mitigated Project

	Daily Emissions (Pounds)	
Activity	*PM10*	*PM2.5*
On-Terminal		
Year 2003 - Baseline	82.83	14.13
Year 2007	101.27	17.28
Year 2010	107.34	18.31
Year 2025	65.48	11.17
Year 2038	65.48	11.17
Off-Terminal		
Year 2003 - Baseline	130.81	26.27
Year 2007	159.93	32.12
Year 2010	273.97	55.02
Year 2025	200.23	40.21
Year 2038	200.23	40.21
Combined On/Off-Terminal		
Year 2003 - Baseline	214	40
Year 2007	261	49
Year 2010	381	73
Year 2025	266	51
Year 2038	266	51

	J	K	L	M	N	O	P
52	Table D1.2.PP-Mit-2010-PD38. Mitigated Peak Daily Train and Rail Yard Cargo Handling Equipment Emissions -						
53	Berths 136-147 Terminal Project Year 2010 - Mitigated Project.						
54		*Tons*					
55	*ICTF/Train Direction/Source Activity*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	
56	*Berths 136-147/Outbound*						
57	Hostler	0.00	0.02	0.03	0.00	0.00	
58	Top Picks	0.00	0.01	0.02	0.00	0.00	
59	Line Haul Locomotive - Road Haul	0.02	0.05	0.29	0.01	0.01	
60	Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00	
61	Yard Locomotive - Switching	0.00	0.00	0.01	0.00	0.00	
62	Subtotal	0.03	0.08	0.35	0.01	0.01	
63	*Berths 136-147/Inbound*						
64	Hostler	0.00	0.01	0.01	0.00	0.00	
65	Top Picks	0.00	0.00	0.01	0.00	0.00	
66	Line Haul Locomotive - Road Haul	0.02	0.05	0.29	0.01	0.01	
67	Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00	
68	Subtotal	0.02	0.06	0.31	0.01	0.01	
69	*Carson or LA Railyards/Outbound*						
70	Hostler	0.00	0.01	0.02	0.00	0.00	
71	Top Picks	0.00	0.00	0.01	0.00	0.00	
72	Line Haul Locomotive - Road Haul	0.01	0.02	0.13	0.00	0.00	
73	Line Haul Locomotive - Notch 1	0.00	0.00	0.01	0.00	0.00	
74	Yard Locomotive - Switching	0.00	0.00	0.00	0.00	0.00	
75	Subtotal	0.01	0.04	0.17	0.00	0.01	
76	*Carson or LA Railyards/Inbound*						
77	Hostler	0.00	0.00	0.01	0.00	0.00	
78	Top Picks	0.00	0.00	0.00	0.00	0.00	
79	Line Haul Locomotive - Road Haul	0.01	0.02	0.13	0.00	0.00	
80	Line Haul Locomotive - Notch 1	0.00	0.00	0.00	0.00	0.00	
81	Subtotal	0.01	0.03	0.15	0.00	0.00	
82	Total Tons Per Year	0.07	0.21	0.98	0.02	0.03	

	J	K	L	M	N	O	P	Q
148	Table D1.2.PP-Mit-2010-PD39. Summary of Peak Daily Train and Rail Yard Cargo Handling Equipment Mitigated							
149	Emissions - Berths 136-147 Terminal Project - Mitigated Project.							
150		*Tons*						
151	*Project Scenario/Source Activity*	*ROG*	*CO*	*NOx*	*SOx*	*PM10*		
152	*Baseline Year 2003*							
153	ICTF Equipment	0.01	0.03	0.10	0.00	0.01		
154	Trains	0.05	0.10	0.87	0.06	0.03		
155	Subtotal	0.06	0.14	0.97	0.06	0.03		
156	*Project Year 2007*							
157	ICTF Equipment	0.01	0.03	0.10	0.00	0.00		
158	Trains	0.04	0.10	0.62	0.06	0.02		
159	Subtotal	0.05	0.14	0.72	0.06	0.03		
160	*Project Year 2010*							
161	ICTF Equipment	0.01	0.05	0.10	0.00	0.00		
162	Trains	0.06	0.16	0.89	0.02	0.02		
163	Subtotal	0.07	0.21	0.98	0.02	0.03		

	A	B	C	D
97	Table D1.2.PP-Mit-2010-PD40. Peak Daily Train Trips - Berths 136-147			
98	Terminal Project - Mitigated Project			
99		*Peak Daily*		
100	*Project Scenario/Rail Yard*	*Round Trips*		
101	Year 2003 Baseline			
102	To/from Berths 136-147 ICTF	-		
103	To/from Carson/LA Rail Yards	2		
104	Year 2007			
105	To/from Berths 136-147 ICTF	-		
106	To/from Carson/LA Rail Yards	2		
107	Year 2010			
108	To/from Berths 136-147 ICTF	2		
109	To/from Carson/LA Rail Yards	1		

Table D1.2.PP-Mit-2010-PD41. Peak Daily Terminal Yard TEU Throughput - Berths 136-147 Terminal Mitigated Project

	Peak Daily TEUs				Peak Daily/
Project Year	*Wharf*	*Gate*	*Total*	*Annual TEUs*	*Annual TEUs*
2003	5,984	8,310	14,294	891,976	0.016
2007	6,732	10,161	16,893	1,056,000	0.016
2010	7,480	13,652	21,132	1,584,400	0.013
2025	10,799	8,329	19,128	1,697,000	0.011
2038	10,799	8,329	19,128	1,697,000	0.011

Table D1.2.PP-Mit-2010-PD42. Terminal Equipment Annual Mitigated Emissions - Berths 136-147 Terminal Proposed Project

Project Scenario/Equipment Horsepower	Peak Daily Hp-Hrs	Annual Emissions (Tons)					
		ROG	CO	NOx	SOx	PM10	PM2.5
Baseline - Year 2003							
Terminal Equipment - 121-175 Hp	10,493,875	9.61	39.16	105.82	1.19	6.03	5.55
Terminal Equipment - 176-250 Hp	12,581,479	6.11	18.34	94.22	1.42	3.37	3.10
Terminal Equipment - 250-500 Hp	2,417,350	1.18	3.92	18.61	0.27	0.58	0.53
Subtotal	25,492,704	16.89	61.43	218.65	2.89	9.98	9.18
Project Year 2007							
Terminal Equipment - 121-175 Hp	12,423,941	10.87	47.79	115.14	0.06	5.35	4.93
Terminal Equipment - 176-250 Hp	14,895,504	9.36	26.27	116.14	0.07	4.75	4.37
Terminal Equipment - 250-500 Hp	2,861,956	1.27	4.42	19.50	0.01	0.69	0.63
Subtotal	30,181,402	21.50	78.48	250.78	0.15	10.79	9.93
Project Year 2010							
Terminal Equipment - 121-175 Hp	18,639,323	11.49	69.29	115.54	0.09	5.39	4.96
Terminal Equipment - 176-250 Hp	22,347,347	11.30	53.35	120.65	0.11	4.93	4.53
Terminal Equipment - 250-500 Hp	4,293,720	1.77	6.72	20.54	0.02	0.80	0.74
Subtotal	45,280,390	24.57	129.36	256.73	0.22	11.12	10.23

Table D1.2.PP-Mit-2010-PD43. Terminal Equipment Peak Daily Emissions - Berths 136-147 Terminal Project - Mitigated Project

		Peak Daily Emissions (Tons)					
Project Scenario/Equipment Horsepower		*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2003							
Terminal Equipment - 121-175 Hp		0.15	0.63	1.70	0.02	0.10	0.09
Terminal Equipment - 176-250 Hp		0.10	0.29	1.51	0.02	0.05	0.05
Terminal Equipment - 250-500 Hp		0.02	0.06	0.30	0.00	0.01	0.01
Subtotal		0.27	0.98	3.50	0.05	0.16	0.15
Project Year 2007							
Terminal Equipment - 121-175 Hp		0.17	0.76	1.84	0.00	0.09	0.08
Terminal Equipment - 176-250 Hp		0.15	0.42	1.86	0.00	0.08	0.07
Terminal Equipment - 250-500 Hp		0.02	0.07	0.31	0.00	0.01	0.01
Subtotal		0.34	1.26	4.01	0.00	0.17	0.16
Project Year 2010							
Terminal Equipment - 121-175 Hp		0.15	0.92	1.54	0.00	0.07	0.07
Terminal Equipment - 176-250 Hp		0.15	0.71	1.61	0.00	0.07	0.06
Terminal Equipment - 250-500 Hp		0.02	0.09	0.27	0.00	0.01	0.01
Subtotal		0.33	1.73	3.42	0.00	0.15	0.14

Table D1.2.PP-Mit-2010-PD44. On-Road Truck Trip Vehicle Miles Travelled - Berths 136-147 Terminal Project - Mitigated Project.

Year	*B136-149 Throughput (TEUs)*	*B136-149 ICTF Thruput (TEUs) (1)*	*TEUs to Offsite Railyard (2)*	*TEUs to Local Deilveries*	*Truck Trips to Offsite Railyard (2)*	*Local Truck Trips (3)*	*Truck Miles to Offsite Railyard (4)*	*Local Truck Trip Miles (5)*	*Composite VMT/ Truck Trip*
Baseline - Year 2003	891,976	-	445,988	445,988	598,795	598,795	9.6	55.0	32.3
Year 2007	1,056,000	-	528,000	528,000	756,532	756,532	9.6	55.0	32.3
Year 2010	1,584,400	188,339	424,619	971,442	598,393	1,369,000	9.6	55.0	41.2
Year 2025	1,697,000	700,810	123,881	872,309	233,837	1,646,564	9.6	55.0	49.4
Year 2038	1,697,000	700,810	123,881	872,309	233,837	1,646,564	9.6	55.0	49.4

(1) Peak Daily throughput estimates from Rail Master Plan.

(2) Based on 50/50/26.8/6.7/7.3% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(3) Based on 50/50/61.4/62.1/63.4% of Berths 136-147 Peak Daily cargo throughput for years 2003/2007/2010/2015/2030.

(4) Assumes an even split to Carson ICTF (4.5 miles) and LA railyards (18 miles) = 11.3 miles/trip

(5) Average local trip length with origin/destination at the POLA.

Table D1.2.PP-Mit-2010-PD45. Peak Daily Operational Emissions - Berths 136-147 Terminal Project - Mitigated Project

	Tons					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2007						
Ships - Fairway Transit (1)	0.03	0.08	1.04	0.62	0.09	0.08
Ships - Precautionary Area Transit (1)	0.01	0.02	0.17	0.12	0.01	0.01
Ships - Harbor Transit (1)	0.01	0.01	0.10	0.06	0.01	0.01
Ships - Docking (1)	0.00	0.00	0.03	0.01	0.00	0.00
Ships - Hoteling Aux. Sources	0.04	0.13	1.39	1.23	0.12	0.11
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Terminal Equipment	0.34	1.26	4.01	0.00	0.17	0.16
On-road Trucks	0.61	2.06	5.49	0.00	0.38	0.26
Trains	0.04	0.10	0.62	0.06	0.02	0.02
Railyard Equipment	0.01	0.03	0.10	0.00	0.00	0.00
Commuting	0.01	0.07	0.01	0.00	0.01	0.01
Pier A Railyard	0.00	0.00	0.03	0.00	0.00	0.00
Project Year 2007 Total	1.11	3.77	13.00	2.10	0.82	0.67
Project Year 2010						
Ships - Fairway Transit (1)	0.06	0.13	1.11	0.52	0.08	0.08
Ships - Precautionary Area Transit (1)	0.02	0.04	0.32	0.16	0.02	0.02
Ships - Harbor Transit (1)	0.02	0.04	0.28	0.12	0.02	0.02
Ships - Docking (1)	0.01	0.01	0.08	0.03	0.01	0.01
Ships - Hoteling Aux. Sources	0.03	0.10	0.99	0.89	0.08	0.07
Tugboats - Cargo Vessel Assist (1)	0.00	0.01	0.07	0.00	0.00	0.00
Terminal Equipment	0.33	1.73	3.42	0.00	0.15	0.14
On-road Trucks	0.26	0.89	2.78	0.01	0.27	0.11
Trains	0.06	0.16	0.89	0.02	0.02	0.02
Railyard Equipment	0.01	0.05	0.10	0.00	0.00	0.00
Commuting	0.01	0.08	0.01	0.00	0.01	0.01
Pier A Railyard	0.00	0.00	0.02	0.00	0.00	0.00
Project Year 2010 Total	0.81	3.25	10.06	1.75	0.68	0.49

Table D1.2.PP-Mit-2010-PD46. Peak Daily Operational Emissions - Berths 136-147 Terminal Project - Mitigated Project.

	Pounds Per Peak Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2007						
Ships - Fairway Transit (1)	68	160	2,076	1,230	174	163
Ships - Precautionary Area Transit (1)	13	31	350	231	30	28
Ships - Harbor Transit (1)	22	28	205	110	21	20
Ships - Docking (1)	8	8	57	27	6	6
Ships - Hoteling Aux. Sources	78	267	2,789	2,468	236	221
Tugboats - Cargo Vessel Assist (1)	-	-	-	-	-	-
Terminal Equipment	688	2,511	8,024	5	345	318
On-road Trucks	1,213	4,121	10,981	8	763	511
Trains	89	208	1,245	111	47	43
Railyard Equipment	17	67	193	0	9	8
Commuting	10	140	18	0	15	14
Pier A Railyard	4	7	54	1	1	1
Project Year 2007 Total	2,210	7,548	25,992	4,191	1,647	1,332
Project Year 2010						
Ships - Fairway Transit (1)	111	260	2,212	1,041	162	152
Ships - Precautionary Area Transit (1)	35	78	632	320	48	45
Ships - Harbor Transit (1)	50	77	569	244	48	45
Ships - Docking (1)	17	21	158	59	14	13
Ships - Hoteling Aux. Sources	55	205	1,971	1,777	151	141
Tugboats - Cargo Vessel Assist (1)	5	24	140	0	6	5
Terminal Equipment	656	3,451	6,848	6	297	273
On-road Trucks	521	1,784	5,565	14	549	227
Trains	128	326	1,772	39	49	45
Railyard Equipment	19	101	197	0	9	8
Commuting	12	161	21	0	22	21
Pier A Railyard	2	9	30	0	0	0
Project Year 2010 Total	1,610	6,496	20,115	3,502	1,354	976
Net Change from Existing Conditions	(367)	(439)	(2,896)	(349)	(252)	(353)
Net Change from NFAB Year 2010	272	1,369	3,064	456	229	164
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55
Project Year 2025						

APPENDIX D2 – FEIS/FEIR

DISPERSION MODELING OF CRITERIA POLLUTANTS

Year 2010 Average Daily Operational Emissions

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Table D2.1-NP(2010)-36. Annual Average Daily Operational Emissions - Berths 136-147 Terminal Project Alternative 1 - No Project.

	Pounds Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2010						
Ships - Fairway Transit (1)	80	183	2,290	1,344	193	181
Ships - Precautionary Area Transit (1)	16	34	333	204	29	27
Ships - Harbor Transit (1)	25	31	238	119	24	23
Ships - Docking (1)	9	8	65	24	7	7
Ships - Hoteling Aux. Sources	48	170	1,699	1,598	145	136
Tugboats - Cargo Vessel Assist (1)	2	13	76	0	3	3
Terminal Equipment	107	461	1,312	1	57	52
On-road Trucks	955	3,169	8,387	9	569	377
Trains	111	281	1,526	34	42	39
Railyard Equipment	18	86	217	0	10	9
Commuting	8	109	14	0	15	14
Pier A Railyard	2	9	31	0	1	1
Project Year 2010 Total	1,380	4,554	16,189	3,333	1,095	867
Net Change from Existing Conditions	195	477	2,717	610	74	36
Net Change from NFAB Year 2010	686	2,075	6,645	1,000	394	385
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (1) Includes auxiliary power emissions.

Table D2.1-Alt3(2010)-36. Annual Average Daily Unmitigated Operational Emissions - Berths 136-147 Terminal Project Alternative 3.

	Pounds Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2010						
Ships - Fairway Transit (1)	90	207	2,595	1,524	219	205
Ships - Precautionary Area Transit (1)	18	38	379	233	33	31
Ships - Harbor Transit (1)	28	35	268	135	27	25
Ships - Docking (1)	10	10	75	33	8	8
Ships - Hoteling Aux. Sources	53	190	1,896	1,791	161	151
Tugboats - Cargo Vessel Assist (1)	3	15	87	0	4	3
Terminal Equipment	120	521	1,482	1	64	59
On-road Trucks	1,076	3,728	10,140	8	660	440
Trains	104	263	1,433	32	40	37
Railyard Equipment	17	79	200	0	9	8
Commuting	10	135	17	0	19	17
Pier A Railyard	2	9	31	0	1	1
Project Year 2010 Total	1,532	5,230	18,602	3,757	1,245	985
Net Change from Existing Conditions	347	1,154	5,131	1,033	223	154
Net Change from NFAB Year 2010	838	2,752	9,059	1,424	543	503
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Table D2.1-Alt4(2010)-39. Annual Average Daily Operational Emissions - Berths 136-147 Terminal Project Alternative 4.

	Pounds Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2010						
Ships - Fairway Transit (1)	34	79	986	579	83	78
Ships - Precautionary Area Transit (1)	7	14	143	88	12	12
Ships - Harbor Transit (1)	10	13	100	51	10	9
Ships - Docking (1)	3	3	27	12	3	3
Ships - Hoteling Aux. Sources	19	69	695	650	59	55
Tugboats - Cargo Vessel Assist (1)	2	9	50	0	2	2
Terminal Equipment	43	187	522	0	23	21
On-road Trucks	341	1,145	3,247	3	411	184
Trains	42	106	577	13	16	15
Railyard Equipment	7	33	82	0	4	3
Commuting	3	45	6	0	6	6
Pier A Railyard	2	9	30	0	1	1
Project Year 2010 Total	514	1,711	6,466	1,396	630	389
Net Change from Existing Conditions	(671)	(2,366)	(7,006)	(1,328)	(392)	(442)
Net Change from NFAB Year 2010	(180)	(767)	(3,078)	(937)	(72)	(94)
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Table D2.1-Alt4Mit(2010)-41. Annual Average Mitigated Daily Operational Emissions - Berths 136-147 Terminal Project Alternative 4.

	Pounds Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2010						
Ships - Fairway Transit (1)	19	51	538	273	38	35
Ships - Precautionary Area Transit (1)	6	14	132	75	10	9
Ships - Harbor Transit (1)	8	13	95	45	8	8
Ships - Docking (1)	3	3	25	10	2	2
Ships - Hoteling Aux. Sources	13	52	444	479	35	33
Tugboats - Cargo Vessel Assist (1)	1	6	38	0	2	1
Terminal Equipment	38	175	402	0	17	16
On-road Trucks	102	348	1,099	3	107	43
Trains	42	106	577	13	16	15
Railyard Equipment	6	33	67	0	3	3
Commuting	12	161	21	0	22	21
Pier A Railyard	2	9	31	0	1	1
Project Year 2010 Total	252	973	3,467	899	261	187
Net Change from Existing Conditions	(933)	(3,104)	(10,005)	(1,824)	(760)	(644)
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Table D2.1.Alt5(2010)-41. Annual Average Daily Operational Emissions - Berths 136-147 Terminal Project Alternative 5.

	Pounds Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2010						
Ships - Fairway Transit (1)	44	116	1,212	613	85	80
Ships - Precautionary Area Transit (1)	13	34	309	172	23	21
Ships - Harbor Transit (1)	20	31	226	103	19	18
Ships - Docking (1)	7	9	63	25	6	5
Ships - Hoteling Aux. Sources	30	122	1,069	1,107	84	78
Tugboats - Cargo Vessel Assist (1)	2	13	76	0	3	3
Terminal Equipment	102	463	1,063	1	46	42
On-road Trucks	235	806	2,516	6	248	103
Trains	96	244	1,327	29	37	34
Railyard Equipment	14	73	150	0	7	6
Commuting	12	161	21	0	22	21
Pier A Railyard	2	9	31	0	1	1
Project Year 2010 Total	579	2,082	8,062	2,057	581	412
Net Change from Existing Conditions	(606)	(1,995)	(5,410)	(666)	(441)	(419)
Net Change from NFAB Year 2010	(115)	(397)	(1,482)	(276)	(121)	(70)
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (1) Includes auxiliary generator emissions.

Table D2.1-NFAB(2010)-40. Annual Average Daily Operational Emissions - Berths 136-147 Terminal Project NEPA Baseline (And Mitigated Alternative 3).

	Pounds Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2010						
Ships - Fairway Transit (1)	50	131	1,380	702	97	91
Ships - Precautionary Area Transit (1)	15	39	351	196	26	24
Ships - Harbor Transit (1)	23	36	255	116	22	20
Ships - Docking (1)	8	10	71	28	6	6
Ships - Hoteling Aux. Sources	34	138	1,199	1,249	94	88
Tugboats - Cargo Vessel Assist (1)	3	15	87	0	4	3
Terminal Equipment	115	523	1,200	1	52	48
On-road Trucks	314	1,075	3,355	9	331	137
Trains	104	263	1,433	32	40	37
Railyard Equipment	15	79	162	0	7	7
Commuting	12	161	21	0	22	21
Pier A Railyard	2	9	31	0	1	1
Project Year 2010 Total (Mitigated Alt 3)	694	2,479	9,543	2,333	701	482
Net Change from Existing Conditions	(491)	(1,598)	(3,928)	(390)	(320)	(349)
Net Change from NFAB Year 2010	0	0	0	0	0	0
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Table D1.2-PP-35. Year 2010 Annual Average Daily Unmitigated Operational Emissions - Berths 136-147 Terminal Proposed Project.

	Pounds Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2010						
Ships - Fairway Transit (1)	102	232	2,882	1,688	243	228
Ships - Precautionary Area Transit (1)	22	44	418	252	37	35
Ships - Harbor Transit (1)	32	40	305	152	31	29
Ships - Docking (1)	11	11	85	37	9	9
Ships - Hoteling Aux. Sources	62	219	2,208	2,054	188	176
Tugboats - Cargo Vessel Assist (1)	3	16	92	0	4	4
Terminal Equipment	141	610	1,737	1	75	69
On-road Trucks	1,319	4,571	12,438	10	809	540
Trains	115	293	1,592	35	44	41
Railyard Equipment	19	88	223	0	10	9
Commuting	12	161	21	0	22	21
Pier A Railyard	2	9	31	0	1	1
Project Year 2010 Total	1,841	6,294	22,032	4,230	1,473	1,160
Net Change from Existing Conditions	656	2,217	8,560	1,506	452	329
Net Change from NFAB Year 2010	1,147	3,815	12,488	1,896	772	678
SCAQMD Daily Significance Thresholds	55	550	55	150	150	55

Note: (1) Includes auxiliary generator emissions.

Table D1.2.PPMit-40. Year 2010 Annual Average Daily Mitigated Operational Emissions - Berths 136-147
Terminal Proposed Project

	Pounds Per Day					
Project Scenario/Source Type	*ROG*	*CO*	*NOx*	*SOx*	*PM10*	*PM2.5*
Project Year 2010						
Ships - Fairway Transit (1)	58	149	1,511	757	107	100
Ships - Precautionary Area Transit (1)	18	44	388	212	29	27
Ships - Harbor Transit (1)	26	40	290	131	25	23
Ships - Docking (1)	9	11	81	32	7	7
Ships - Hoteling Aux. Sources	39	157	1,388	1,415	108	102
Tugboats - Cargo Vessel Assist (1)	3	16	92	0	4	4
Terminal Equipment	135	709	1,407	1	61	56
On-road Trucks	380	1,303	4,065	10	401	369
Trains	115	293	1,592	35	44	41
Railyard Equipment	17	88	180	0	8	7
Commuting	12	161	21	0	22	21
Pier A Railyard	2	9	31	0	1	1
Project Year 2010 Total	814	2,979	11,044	2,595	817	757
Net Change from Existing Conditions	(371)	(1,097)	(2,428)	(129)	(205)	(75)
Net Change from NFAB Year 2010	120	501	1,501	262	116	274
SCAQMD Daily Significance Thresholds	55	550	55	150	150	

Note: (1) Includes auxiliary generator emissions.

APPENDIX D3 – FEIS/FEIR
HEALTH RISK ASSESSMENT REPORT
Revisions to D3 Text and Dispersion Modeling Sensitivity Analyses

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1. **Locomotives.** Locomotive future-year emission factors are based on the USEPA nationwide locomotive emission standard implementation schedule (USEPA 1998). In general, locomotive emission factors decline in future years as older locomotives gradually are replaced with newer locomotives meeting the USEPA tiered emission standards. The emission factors for the PHL locomotives that operate at the existing/proposed PHL rail yard and in switching mode within the proposed Berths 136-147 on-dock rail yard were adjusted to account for the replacement of existing engines in these locomotives with new Tier 2 standard engines beginning in year 2008 (Port 2005b). The emission factors assume the use of CARB diesel fuel (maximum 500 ppm sulfur) in yard locomotives in 2003, and ULSD starting in 2007, in accordance with California Diesel Fuel Regulations (CARB 2004b). The analysis also assumed that line-haul locomotives use diesel fuel with an average sulfur content of ~~1,927~~ 2,000 ppm before 2008, 500 ppm starting in 2008, and 15 ppm starting in 2012, in accordance with the USEPA Nonroad Diesel Fuel Rule (USEPA 2004). Emission factors after the year 2040 were held constant at 2040 levels.

2. **Trucks**. Due to the promulgation of future USEPA and CARB emission standards, coupled with normal truck fleet turnover, emission factors for trucks will decrease with time. The emission factors also assume the use of CARB diesel fuel (maximum 500 ppm sulfur) in trucks in 2003 and ULSD starting in 2007, in accordance with California Diesel Fuel Regulations (CARB 2004b). Composite truck emission factors were developed using the EMFAC2007 emission factor model (CARB 2006b). Emission factors were calculated for years 2003, 2007, 2010, 2015, 2025, 2038, and 2040 (the year farthest in the future that EMFAC2007 estimates emission factors). Emission factors for years between the calculated years were estimated by interpolation. Registration information collected for on-road trucks that serviced San Pedro Bay Ports container terminals in the year 2003 and 2005 (Starcrest 2005 and 2007) were used to develop the truck fleet age distribution for the CEQA Baseline year 2003 and future Project years, respectively, for use in EMFAC2007. Given a lack of information on how emission factors would change beyond the year 2040, emission factors after the year 2040 were held constant at 2040 levels.

~~3.~~ **Construction Sources**. DPM Emissions from Phases 1 and 2 sources, including onsite construction equipment and haul trucks, general cargo ship (for crane delivery) transit and hoteling, tugboat/barge activities associated with dredging, dike and wharf construction, and dredge material transport, were calculated by the methods presented in section 3.2.4.3.1 of the EIS/R.

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Figure 1. Isopleths of Annual DPM Concentration (ug/m^3) for the Unextended Railroad Line Along Alameda Street Emissions (70-year average) - Unmitigated Project.

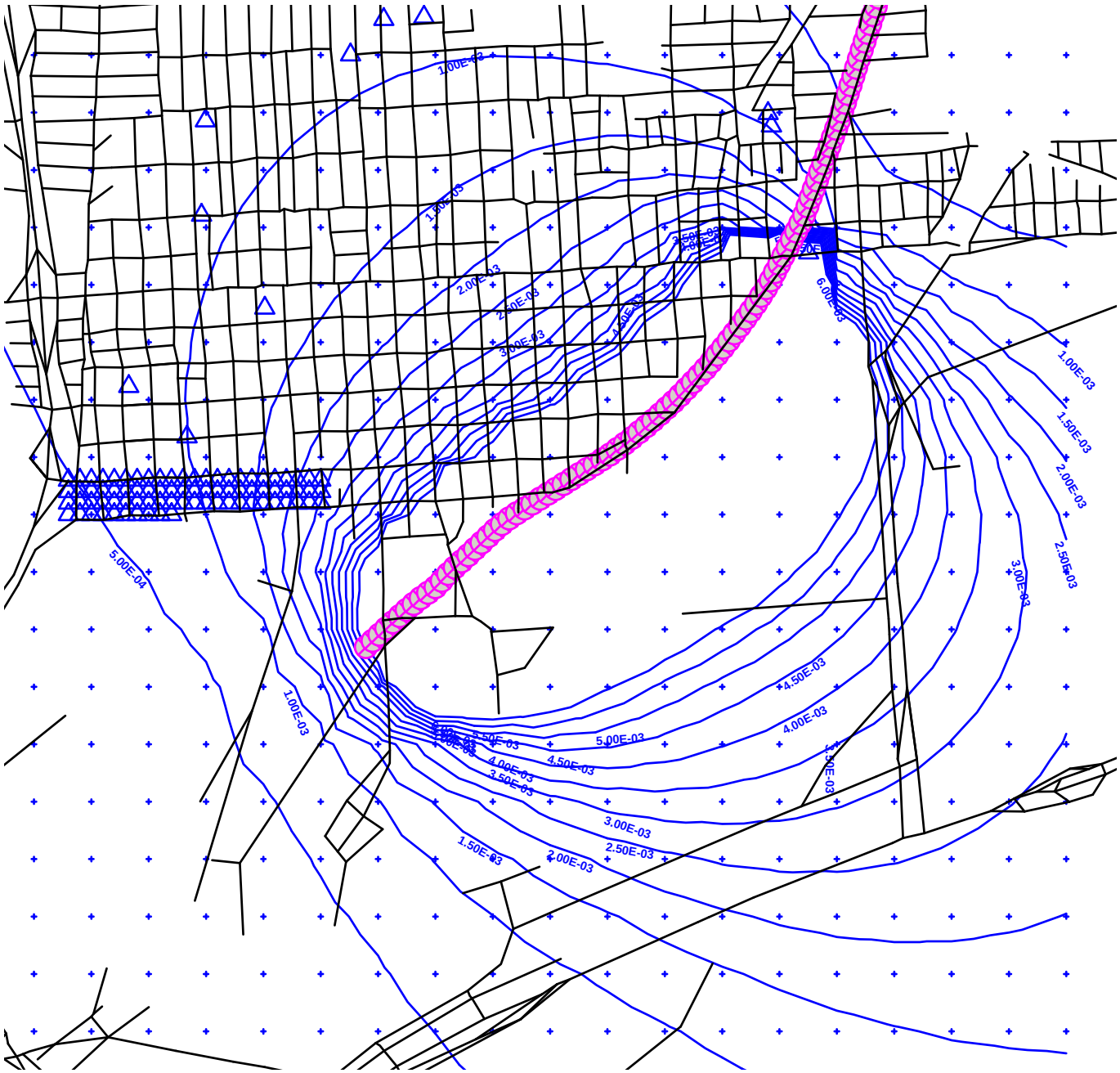

Figure 2. Isopleths of Annual DPM Concentration (ug/m^3) for the Extended Railroad Line Along Alameda Street Emissions (70-year average) - Unmitigated Project.

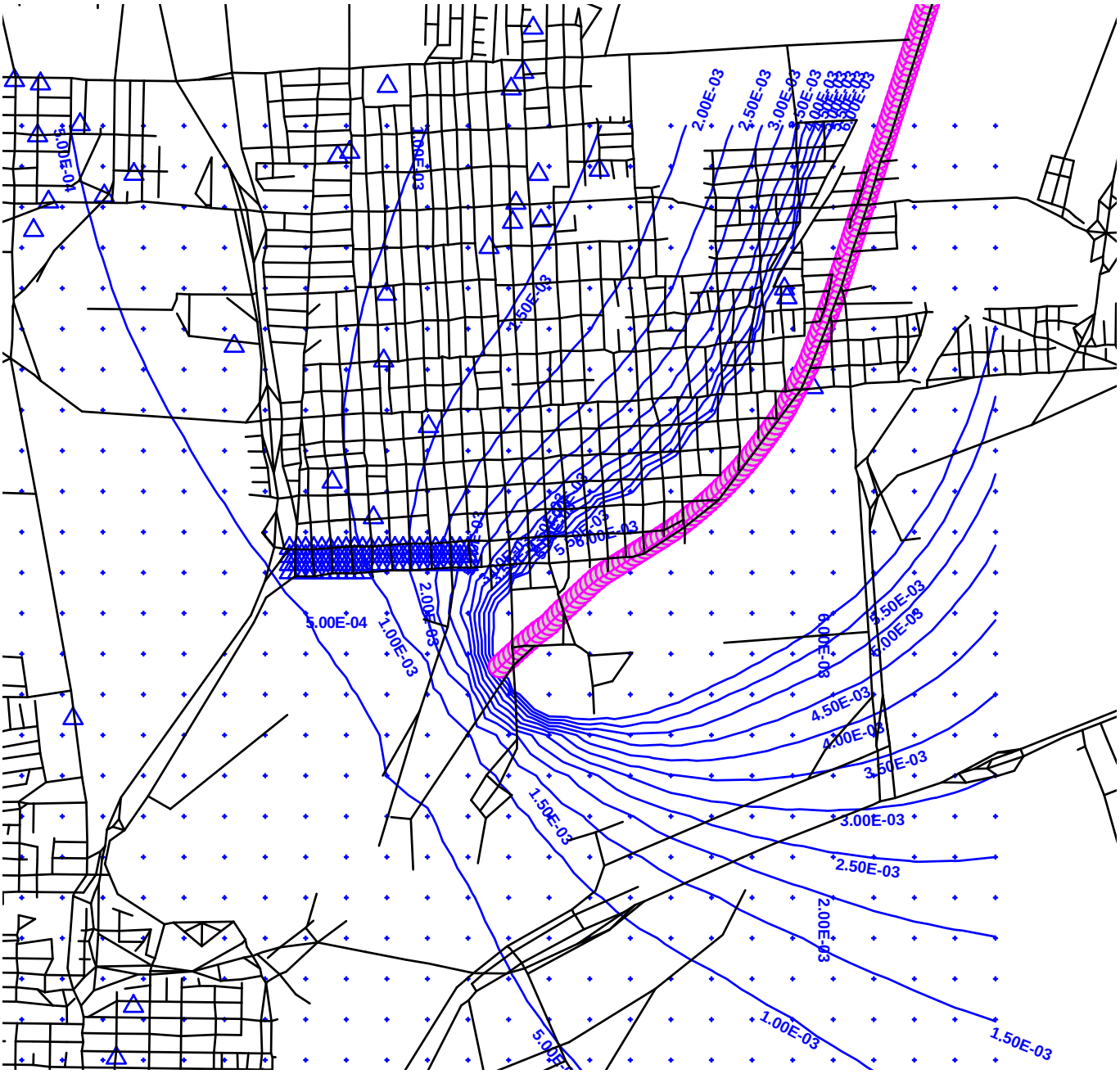

Figure 3. Isopleths of Annual DPM Concentration (ug/m^3) for the Unextended Alameda Street Emissions (70-year average) - Unmitigated Project.

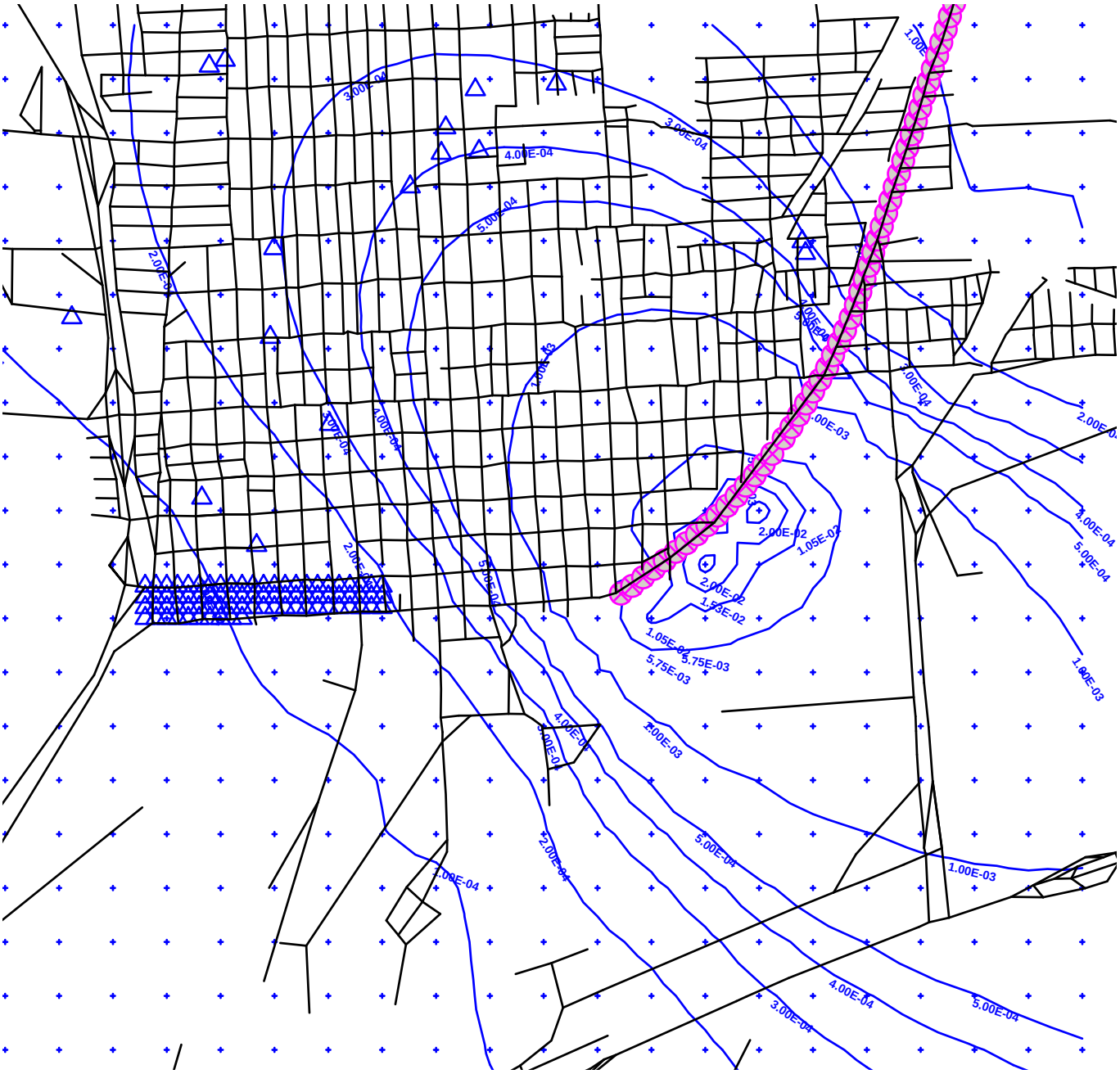

Figure 4. Isopleths of Annual DPM Concentration (ug/m^3) for the Extended Alameda Street Emissions (70-year average) - Unmitigated Project.

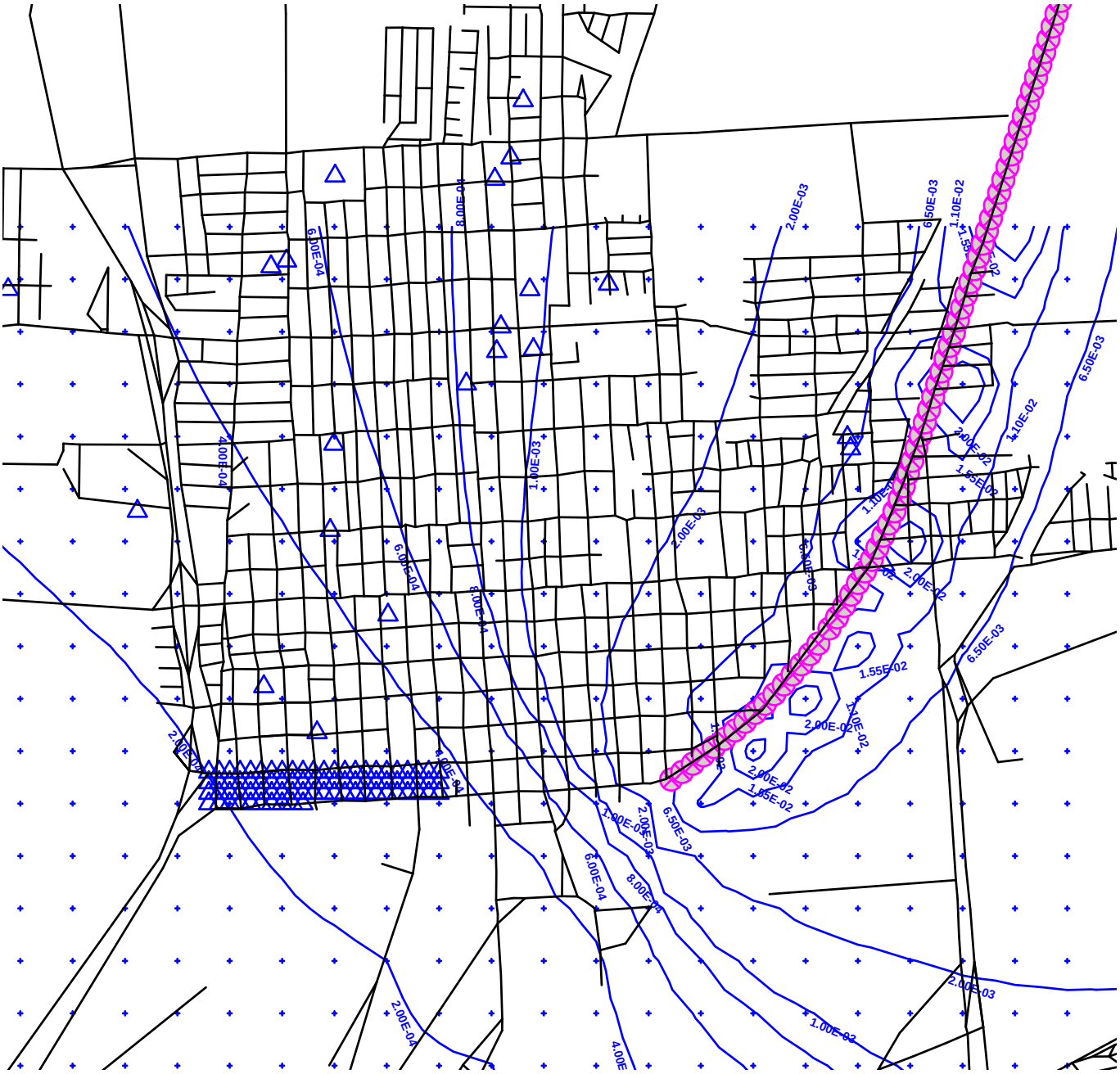

Figure 5. Isopleths of Annual DPM Concentration (ug/m^3) for the Unextended Alameda Street Emissions (70-year average) - Mitigated Project.

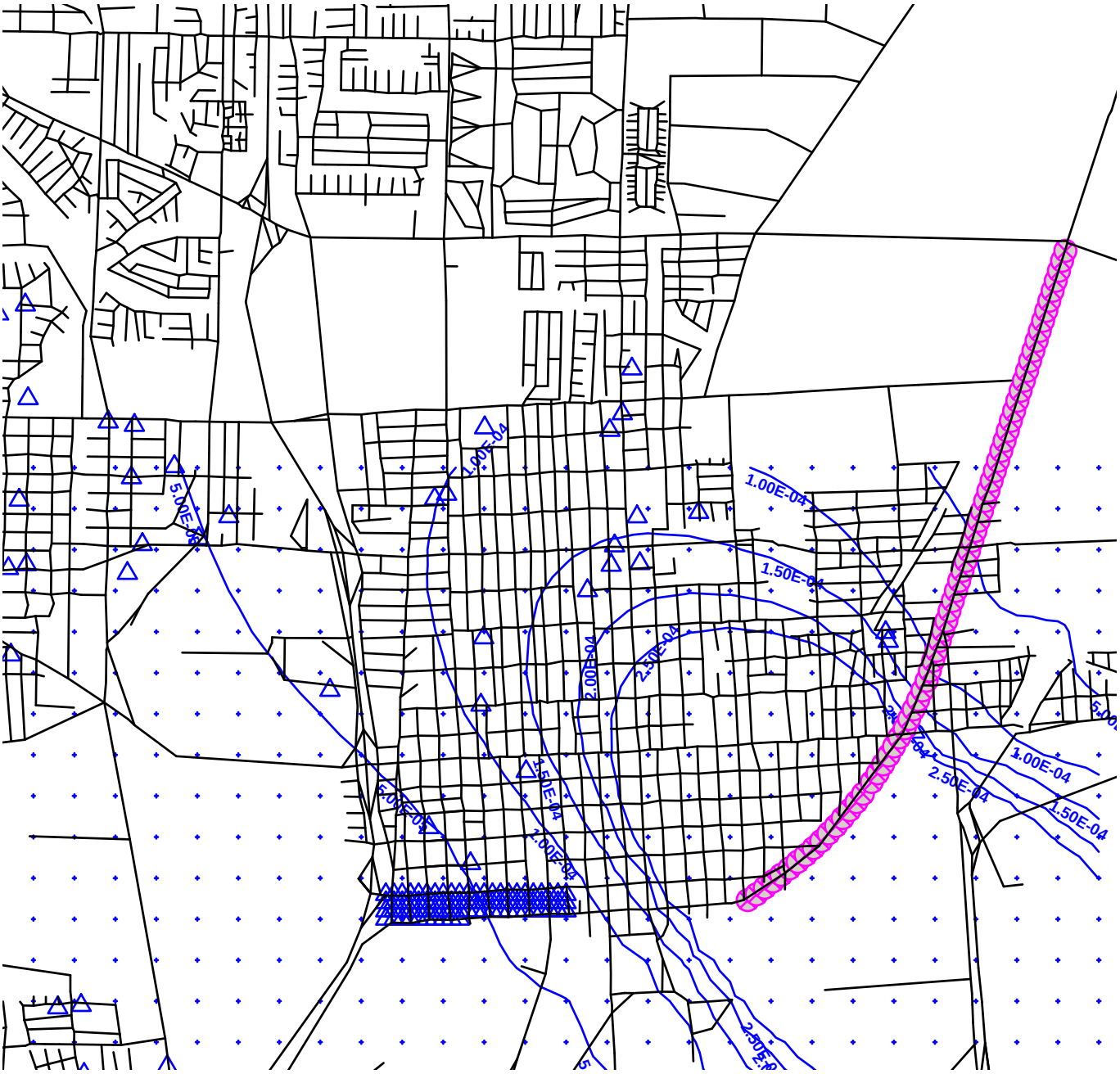

Figure 6. Isopleths of Annual DPM Concentration (ug/m^3) for the Extended Alameda Street Emissions (70-year average) - Mitigated Project.

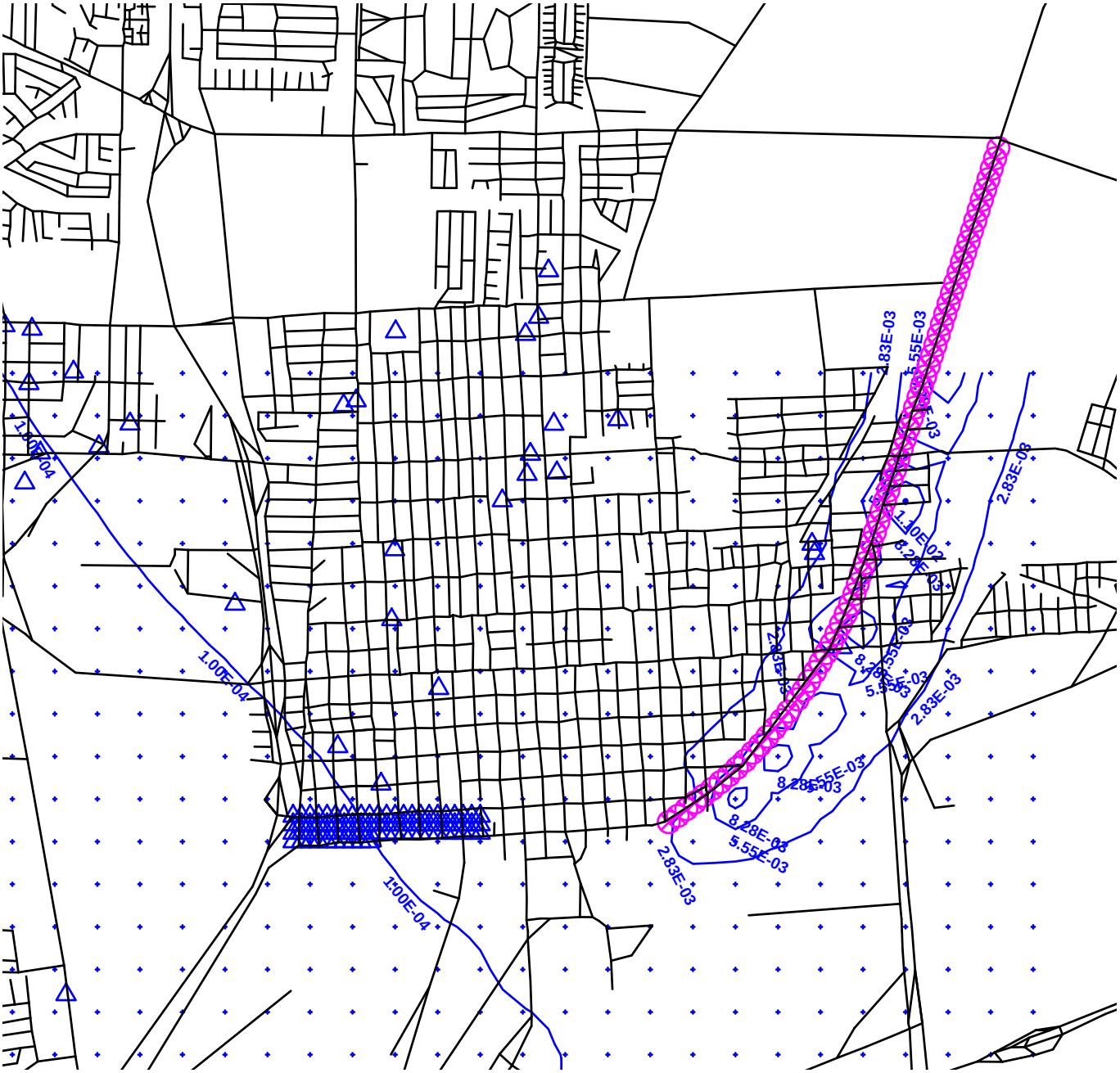

Figure 7. Isopleths of Annual DPM Concentration (ug/m^3) for the Unextended I-110 Transit Emissions (70-year average) - Unmitigated Project.

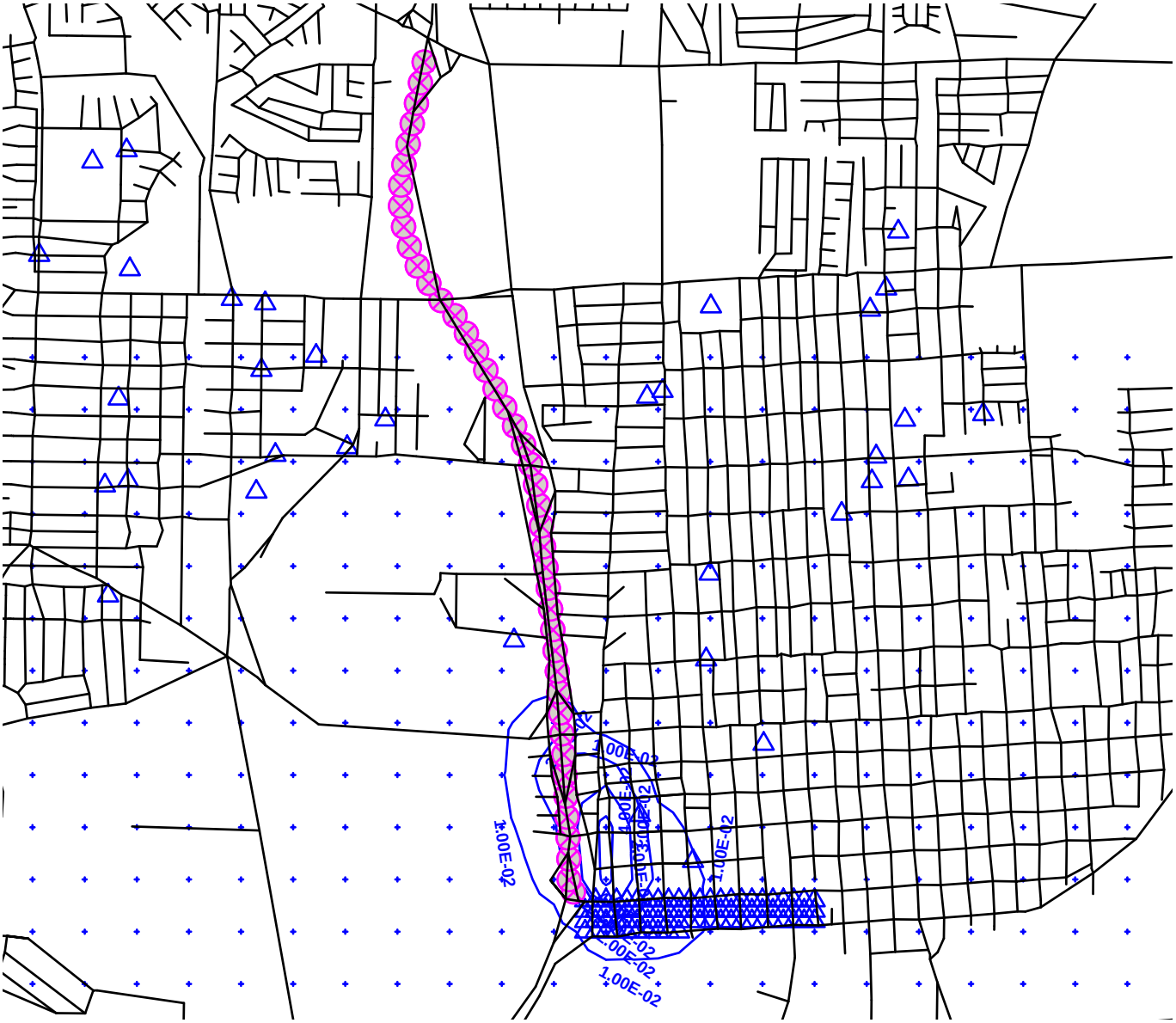

Figure 8. Isopleths of Annual DPM Concentration (ug/m^3) for the Extended I-110 Emissions (70-year average) - Unmitigated Project.

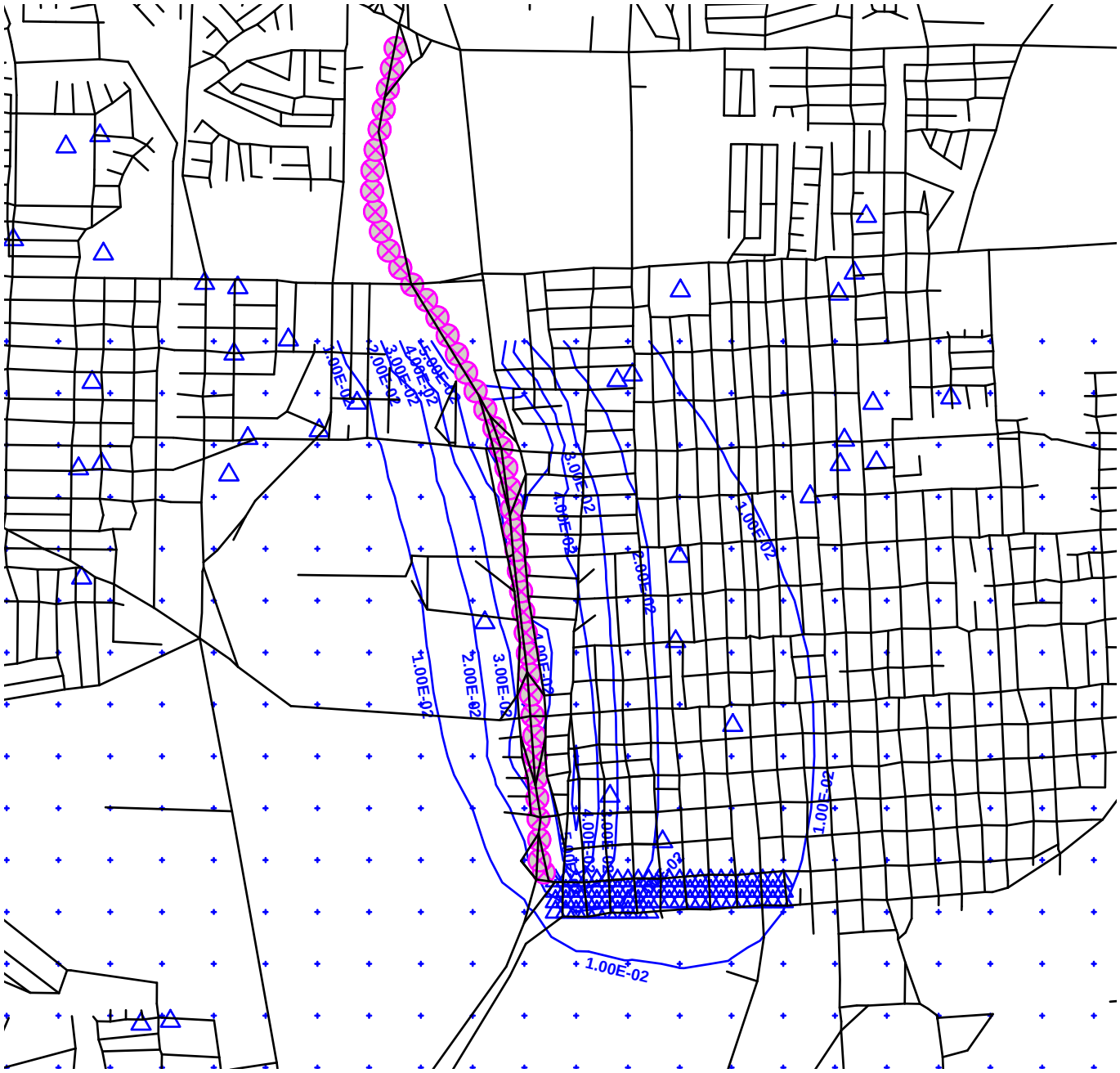

Figure 9. Isopleths of Annual DPM Concentration (ug/m^3) for the Unextended I-110 Emissions (70-year average) - Mitigated Project.

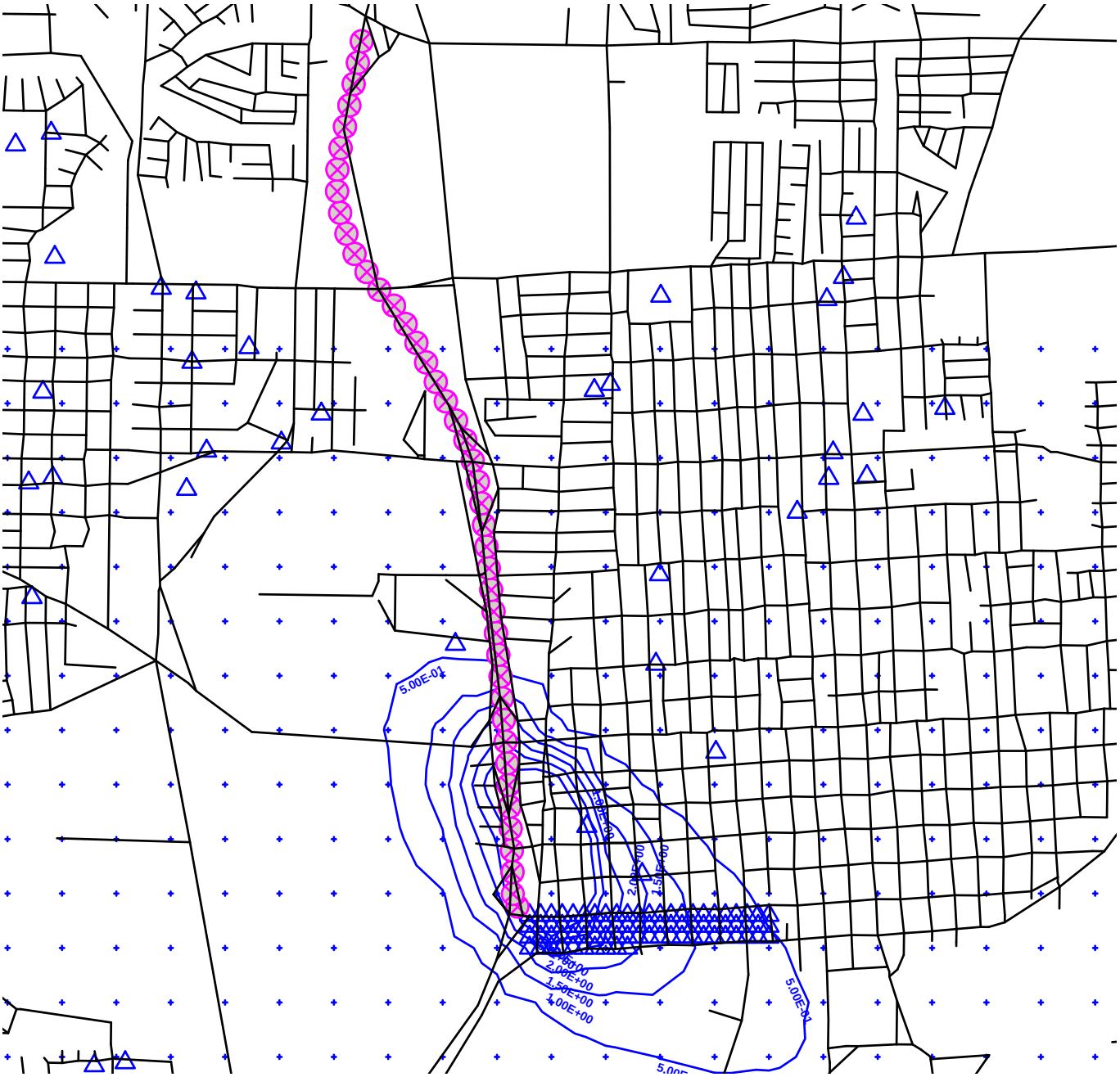

Figure 10. Isopleths of Annual DPM Concentration (u*g*/m^3) for the Extended I-110 Emissions (70-year average) - Mitigated Project.

Figure 11. Isopleths of Annual DPM Concentration (ug/m^3) for the Unextended Fairway Vessel Transit Emissions (70-year average) – Unmitigated Project

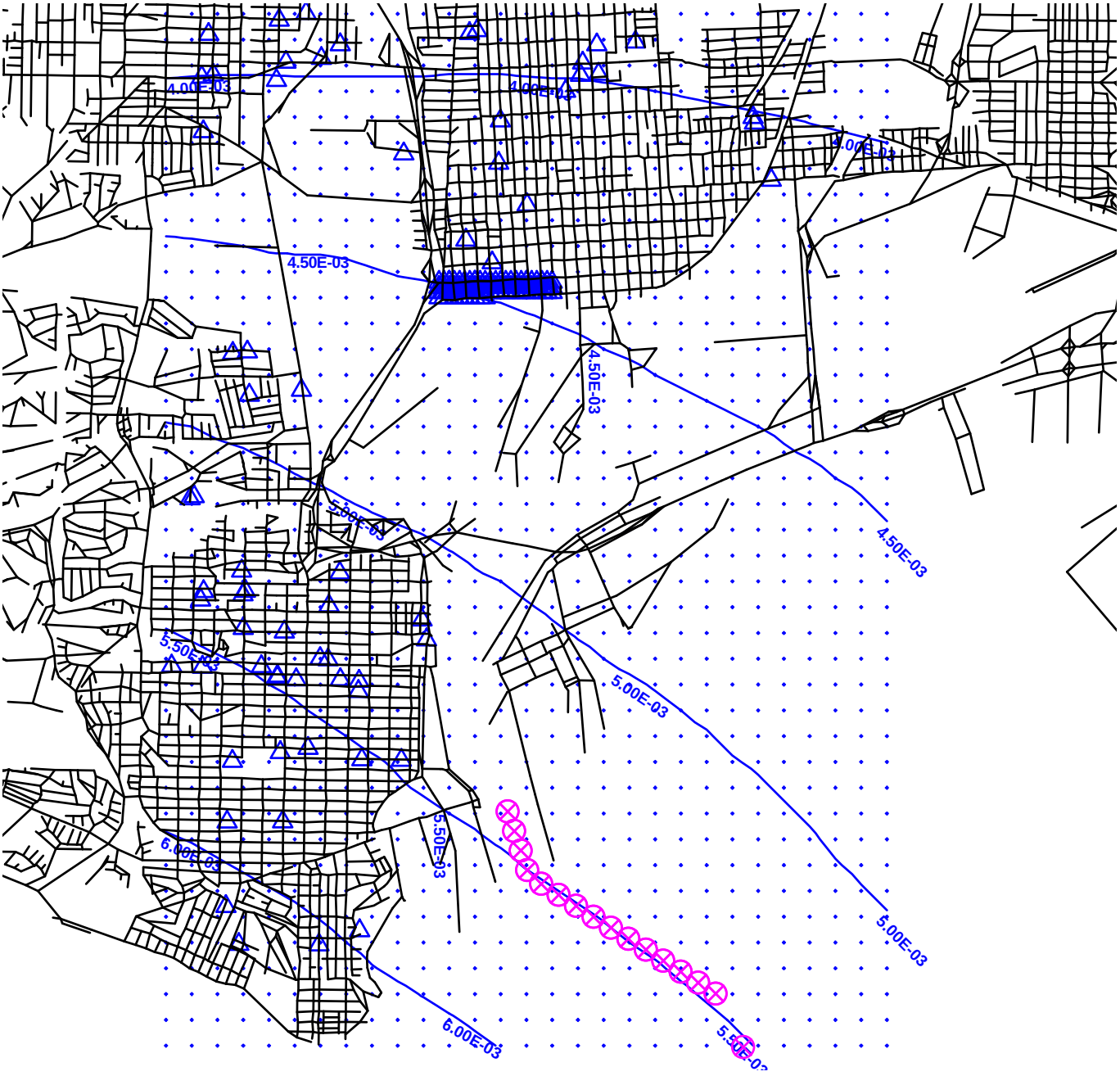

Figure 12. Isopleths of Annual DPM Concentration (u*g*/m^3) for the Extended Fairway Vessel Transit Emissions (70-year average) - Unmitigated Project.

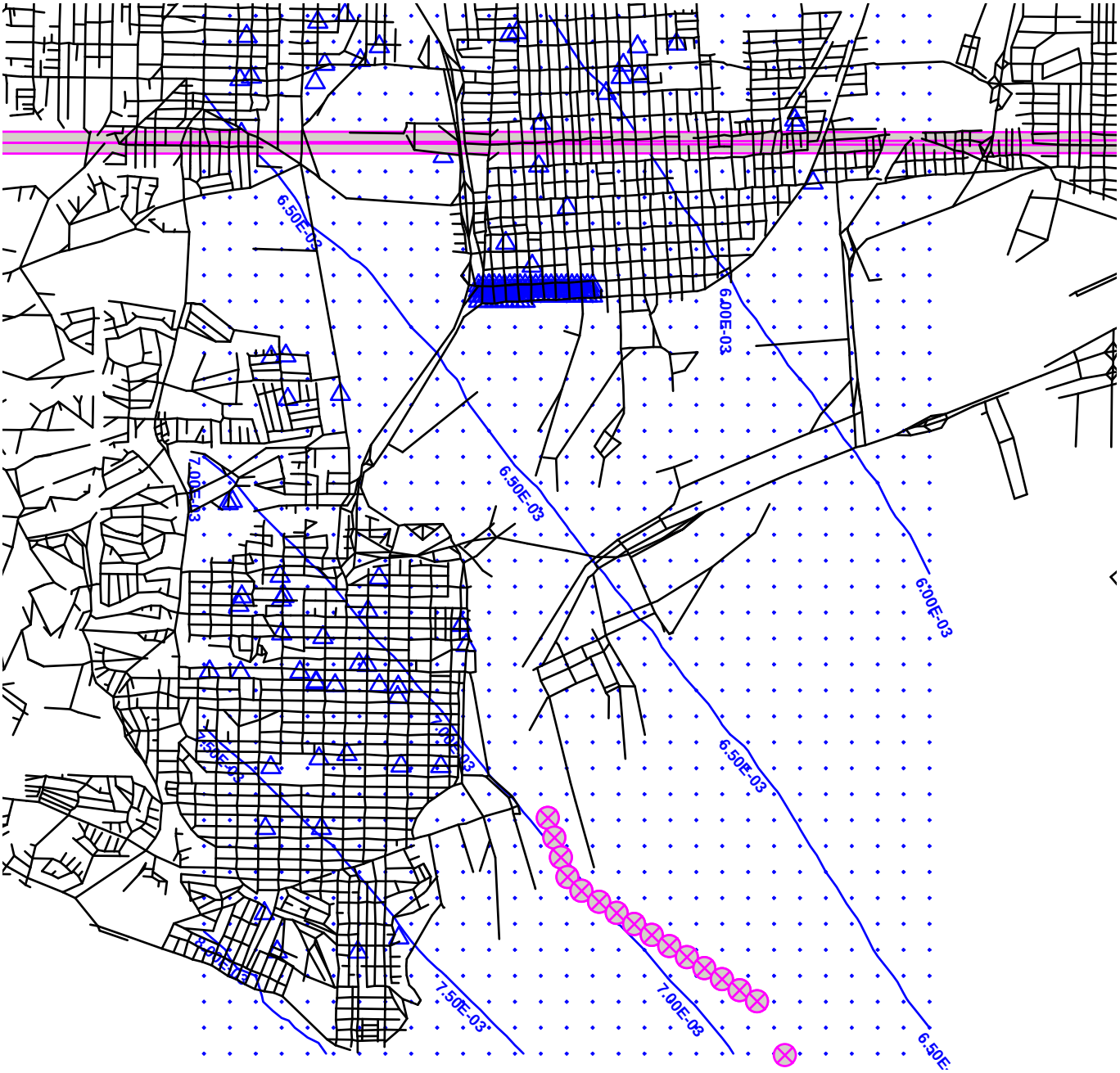

Figure 13. Isopleths of Annual DPM Concentration (u*g*/m^3) for the Unextended Fairway Vessel Transit Emissions (70-year average) - Mitigated Project.

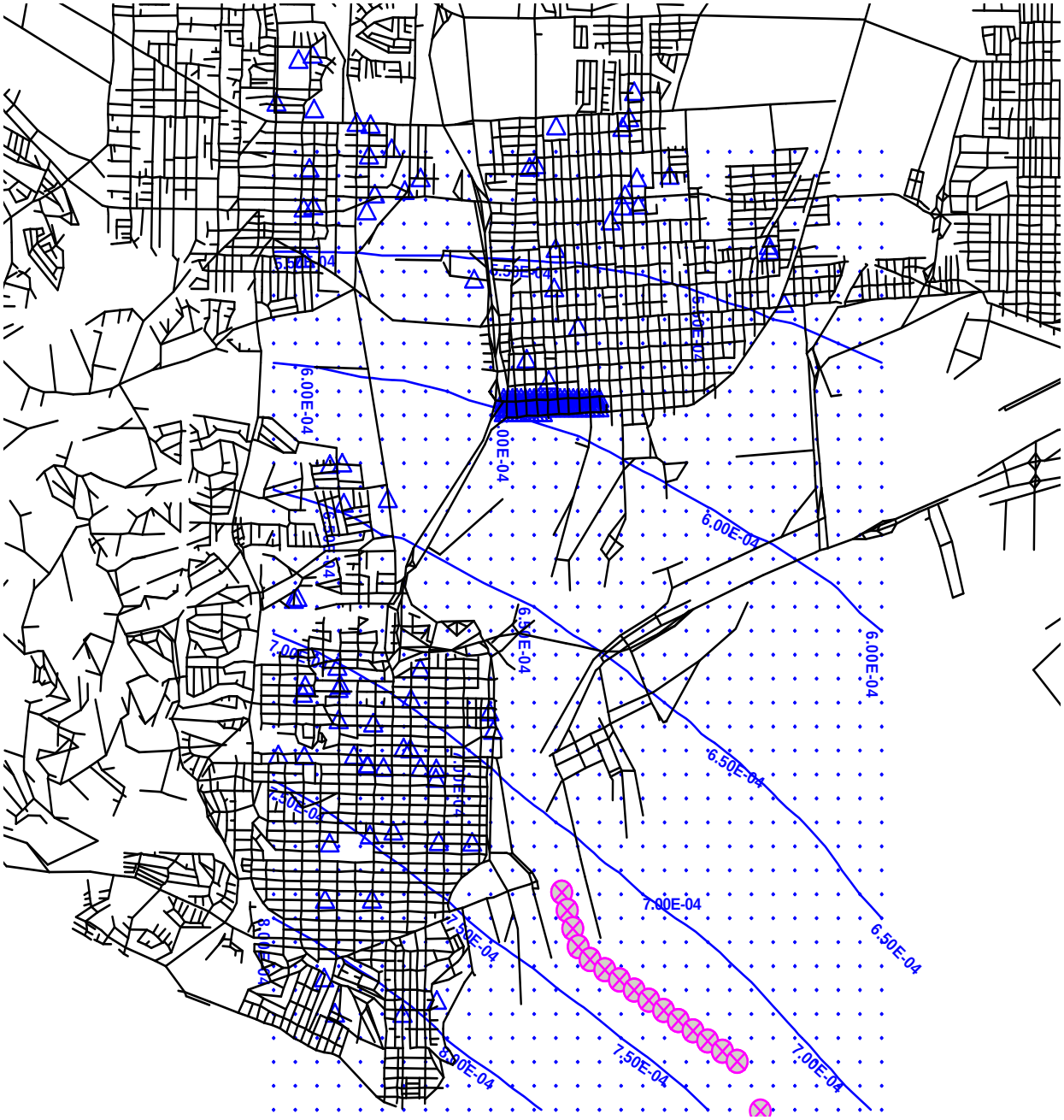

Figure 14. Isopleths of Annual DPM Concentration (u*g*/m^3) for the Extended Fairway Vessel Transit Emissions (70-year average) - Mitigated Project

Source Contributions to Cancer Risk at the Highest Unmitigated Residential Receptor # 882 - 3737500X/381750N.

Project unmit. cancer risk at 882	2.72E-04			
Project mit. cancer risk at 882	6.26E-05			
Source/Scenario	*Annual DPM Concentration (ug/m3)*	*Cancer Risk (10/M)*	*% of Total Cancer Risk*	*Extension % of Total Cancer Risk*
Railroad				
Existing	5.77E-04	1.84E-07	0.07	
Extended	7.05E-04	2.25E-07	0.08	0.02
Alameda St				
Unmitigated Existing	9.03E-05	2.88E-08	0.01	
Unmitigated Exteneded	2.14E-04	6.82E-08	0.03	0.01
Mitigated Exisiting	3.81E-05	1.21E-08	0.02	
Mitigated Exteneded	9.04E-05	2.88E-08	0.05	0.03
I-110				
Unmitigated Existing	4.28E-02	1.36E-05	5.00	
Unmitigated Exteneded	4.75E-02	1.51E-05	5.55	0.55
Mitigated Exisiting	1.82E-02	5.80E-06	9.26	
Mitigated Exteneded	2.02E-02	6.44E-06	10.28	1.02
Vessel Fairway				
Unmitigated Existing	4.47E-03	1.42E-06	0.52	
Unmitigated Exteneded	6.32E-03	2.01E-06	0.74	0.22
Mitigated Exisiting	5.94E-04	1.89E-07	0.30	
Mitigated Exteneded	8.40E-04	2.68E-07	0.43	0.13

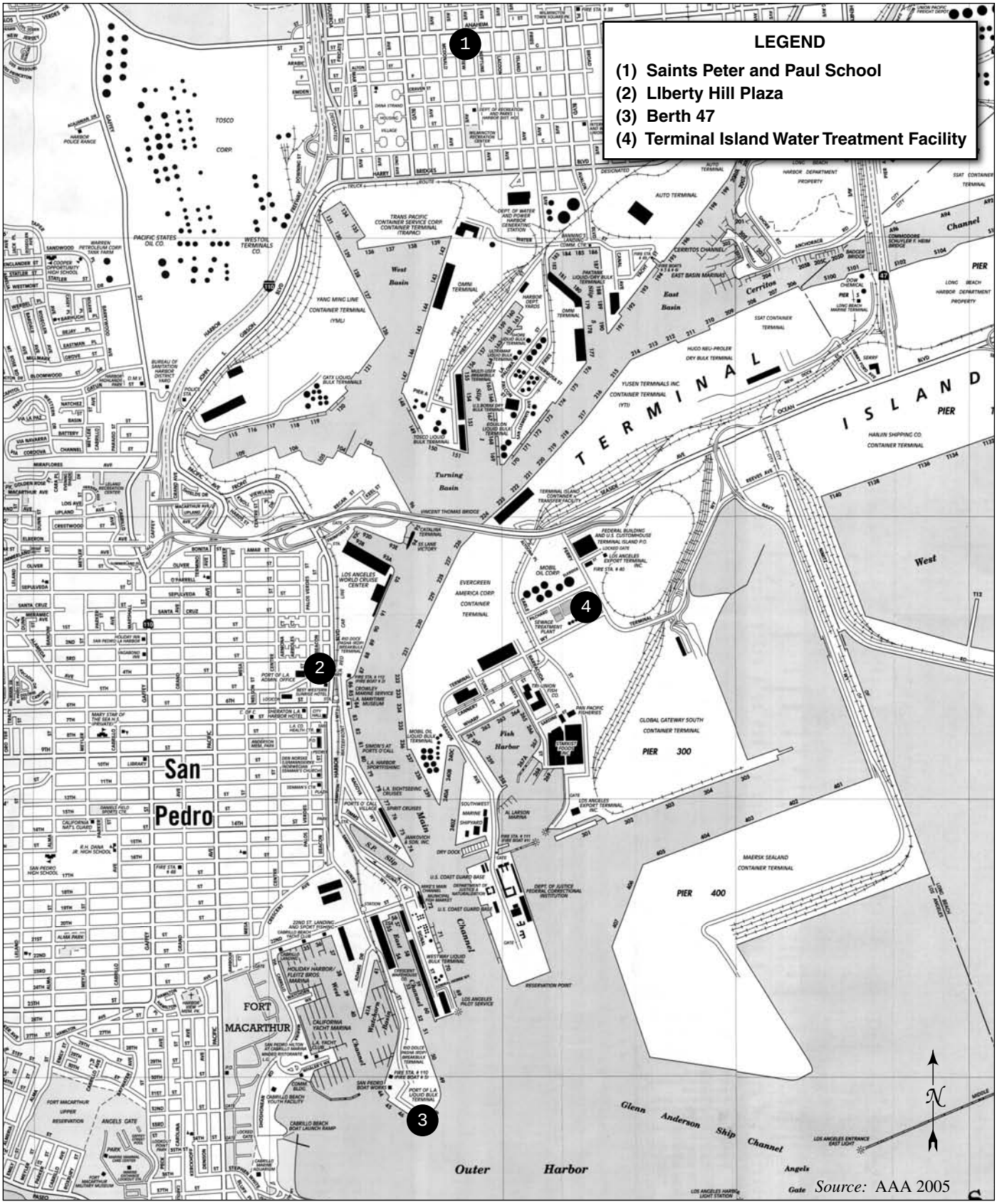

Figure 1. POLA Air Monitoring Station Locations