Appendix 3 – Emissions Inventory Details

Historical Methods Inventory

This section provides additional details on the "historical methods" emissions inventory presented in the main body of the report. In this version, methods used to develop the original baseline inventory presented in the WOCAP were preserved so that updated emissions estimates for 2024 and 2029 would be directly comparable to the WOCAP baseline. This approach facilitates trends analyses and provides an assessment of progress toward original plan targets.

Tables A4-1 through A4-3 provide detailed breakdowns of West Oakland emissions for 2017, 2024, and 2029 and estimated changes in emissions between 2024/2029 and the 2017 WOCAP baseline. These tables also include emissions estimates for local sources not included in the model-based exposure analyses described in the main body of this report (see the "Area" and "Nonroad" sections at the bottom of each table). Emissions for these non-modeled sources were derived from gridded inventory data prepared at a 1-km grid resolution for regional photochemical modeling applications. While this resolution is not sufficient for local-scale exposure analyses, the gridded data do provide a more complete inventory for West Oakland.

Table A4-1 shows that DPM reductions from key sources included in the local-scale exposure modeling total 7.5 tons between 2017 and 2024. An additional 2.9 tons of reductions were estimated for the non-modeled Area and Non-road sources, for a total DPM reduction of 10.4 tons. Whether or not these non-modeled sources are considered, DPM emissions were reduced by more than 30% between 2017 and 2024. Changes in cancer risk-weighted emissions (Table A4-2) track the DPM changes closely on a percentage basis, as DPM is the main driver of cancer risk in the inventory.

Similarly, Table A4-3 shows that $PM_{2.5}$ reductions from key sources included in the local-scale exposure modeling total 8.3 tons between 2017 and 2024. An additional 0.6 tons of reductions were estimated for the non-modeled Area and Non-road sources, for a total $PM_{2.5}$ reduction of 8.9 tons. Notably, emissions from road dust (a significant $PM_{2.5}$ source) are estimated to increase by about 7% between 2017 and 2024 due to increased vehicle activity and delays in implementing an expanded street sweeping program in West Oakland.

Table A4-1. Diesel PM Emissions Summaries and Differences, Historical Methods (tons per year)

Source	DPM Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Highway	**2.12**	**0.27**	**0.22**	**-1.86**	**-1.90**
Non-truck vehicles	0.18	0.07	0.04	-0.11	-0.14
HD/Medium HD trucks	1.86	0.13	0.12	-1.73	-1.73
Light HD trucks	0.09	0.07	0.06	-0.02	-0.03
Street	**2.07**	**0.17**	**0.14**	**-1.91**	**-1.93**
Non-truck vehicles	0.09	0.03	0.02	-0.06	-0.07

Source	DPM Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
HD/Medium HD trucks	1.88	0.07	0.06	-1.83	-1.83
Light HD trucks	0.09	0.07	0.06	-0.02	-0.03
Port	**15.85**	**12.92**	**12.89**	**-2.94**	**-2.96**
OGV maneuvering	3.84	4.39	4.93	+0.55	+1.09
OGV berthing	4.31	4.08	4.58	-0.23	+0.27
Harbor craft	3.94	1.68	0.84	-2.25	-3.10
Dredging	1.16	0.54	0.44	-0.62	-0.72
Bunkering	0.28	0.15	0.10	-0.13	-0.18
Port trucks	0.50	0.12	0.12	-0.38	-0.38
Cargo handling	1.57	1.85	1.79	+0.28	+0.23
OGRE Railyard	0.08	<0.01	<0.01	-0.08	-0.08
BNSF Railyard	0.18	0.10	0.09	-0.08	-0.09
Rail	**2.20**	**1.56**	**1.12**	**-0.64**	**-1.08**
Rail lines	1.09	0.45	0.20	-0.64	-0.89
UP Railyard	1.11	1.11	0.92	0.00	-0.19
Permitted	**0.30**	**0.18**	**0.18**	**-0.12**	**-0.12**
Schnitzer (stationary)	–	<0.01	<0.01	<0.01	<0.01
EBMUD	0.09	0.04	0.04	-0.05	-0.05
Dynegy	<0.01	0.00	0.00	>-0.01	>-0.01
Pinnacle Ag Services	–	–	–	–	–
Sierra Pacific	–	–	–	–	–
CASS	–	–	–	–	–
California Cereal	–	–	–	–	–
CA Waste (10th St)	–	–	–	–	–
Other	0.21	0.14	0.14	-0.07	-0.07
Other	**1.33**	**1.25**	**0.71**	**-0.08**	**-0.62**
Ferries	0.93	0.89	0.48	-0.04	-0.45
Schnitzer (ships)	0.27	0.33	0.20	+0.06	-0.06
Schnitzer (trucks)	0.01	< 0.01	<0.01	-0.01	-0.01
Truck-related businesses	0.12	0.03	0.03	-0.09	-0.09
Total – modeled sources	**23.87**	**16.34**	**15.27**	**-7.54**	**-8.60**
Area	**–**	**–**	**–**	**–**	**–**
Commercial cooking	–	–	–	–	–
Food and Agriculture	–	–	–	–	–
Residential fuel combustion	–	–	–	–	–
Commercial/industrial fuel combustion	–	–	–	–	–

Source	DPM Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Industrial processes	–	–	–	–	–
Solvent utilization	–	–	–	–	–
Consumer products	–	–	–	–	–
Other area sources	–	–	–	–	–
Non-road	**5.36**	**2.49**	**1.59**	**-2.86**	**-3.77**
Construction equipment	3.33	1.42	1.07	-1.91	-2.26
Commercial/industrial equipment	0.51	0.21	0.09	-0.31	-0.43
Lawn & garden equipment	0.02	0.02	0.02	<0.01	<0.01
TRUs	0.26	0.06	0.02	-0.19	-0.24
Other non-road sources	1.24	0.78	0.39	-0.46	-0.85
Total – non-modeled sources	**5.36**	**2.49**	**1.59**	**-2.86**	**-3.77**
Grand Total	**29.23**	**18.83**	**16.86**	**-10.40**	**-12.38**

Table A4-2. Cancer Risk-Weighted Emissions Summaries and Differences, Historical Methods (unitless)

Source	Risk-weighted Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Highway	**1,767**	**309**	**260**	**-1,458**	**-1,508**
Non-truck vehicles	328	163	125	-165	-202
HD/Medium HD trucks	1,376	97	93	-1,278	-1,283
Light HD trucks	64	49	42	-15	-22
Street	**1,651**	**191**	**159**	**-1,460**	**-1,492**
Non-truck vehicles	182	90	70	-92	-113
HD/Medium HD trucks	1,400	49	45	-1,351	-1,356
Light HD trucks	69	52	45	-17	-24
Port	**11,849**	**9,659**	**9,648**	**-2,189**	**-2,201**
OGV maneuvering	2,863	3,274	3,674	+411	+812
OGV berthing	3,255	3,079	3,455	-174	+203
Harbor craft	2,932	1,253	624	-1,679	-2,308
Dredging	860	401	328	-448	-524
Bunkering	209	115	72	-95	-137
Port trucks	368	89	87	-279	-281
Cargo handling	1,168	1,375	1,336	+206	+168
OGRE Railyard	57	1	1	-56	-56
BNSF Railyard	136	74	69	-61	-66

Source	Risk-weighted Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Rail	**1,637**	**1,163**	**835**	**-473**	**-801**
Rail lines	810	337	148	-473	-662
UP Railyard	826	826	687	0	-139
Permitted	**1,101**	**1,142**	**1,142**	**+40**	**+40**
Schnitzer (stationary)	823	944	944	121	121
EBMUD	110	69	69	-41	-41
Dynegy	1	2	2	2	2
Pinnacle Ag Services	–	–	–	–	–
Sierra Pacific	–	–	–	–	–
CASS	<1	4	4	4	4
California Cereal	<1	<1	<1	<1	<1
CA Waste (10th St)	–	–	–	–	–
Other	168	122	122	-46	-46
Other	**1,017**	**960**	**563**	**-57**	**-454**
Ferries	695	664	359	-31	-336
Schnitzer (ships)	223	275	183	51	-40
Schnitzer (trucks)	8	<1	<1	-8	-8
Truck-related businesses	90	21	20	-69	-70
Total – modeled sources	**19,022**	**13,425**	**12,606**	**-5,597**	**-6,415**
Area	**132**	**134**	**137**	**3**	**5**
Commercial cooking	13	15	14	2	1
Food and Agriculture	–	–	–	–	–
Residential fuel combustion	41	36	41	-4	0
Commercial/industrial fuel combustion	15	15	16	0	1
Industrial processes	13	14	16	1	3
Solvent utilization	31	33	31	2	0
Consumer products	19	20	19	1	0
Other area sources	<1	<1	<1	<1	<1
Non-road	**4,133**	**1,969**	**1,271**	**-2,164**	**-2,862**
Construction equipment	2,497	1,068	807	-1,429	-1,690
Commercial/industrial equipment	409	177	83	-232	-327
Lawn & garden equipment	42	43	35	-1	8
TRUs	192	47	15	-145	-177
Other non-road sources	992	634	332	-358	-660
Total – non-modeled sources	**4,264**	**2,103**	**1,407**	**-2,161**	**-2,857**

Source	Risk-weighted Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Grand Total	**23,286**	**15,528**	**14,014**	**-7,758**	**-9,272**

Table A4-3. $PM_{2.5}$ Emissions Summaries and Differences, Historical Methods (tons per year)

Source	$PM_{2.5}$ Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Highway	**20.25**	**19.69**	**19.26**	**-0.56**	**-0.99**
Non-truck vehicles	12.20	12.85	12.14	+0.66	-0.06
HD/Medium HD trucks	2.49	0.90	0.91	-1.58	-1.58
Light HD trucks	0.41	0.42	0.42	+0.01	+0.01
Road dust	5.15	5.52	5.79	+0.36	+0.63
Street	**22.31**	**21.92**	**22.38**	**-0.39**	**+0.07**
Non-truck vehicles	4.81	5.02	4.70	+0.21	-0.11
HD/Medium HD trucks	2.43	0.75	0.75	-1.68	-1.68
Light HD trucks	0.35	0.35	0.35	0.00	0.00
Road dust	14.72	15.80	16.58	+1.08	+1.86
Port	**22.00**	**18.36**	**19.01**	**-3.64**	**-2.99**
OGV maneuvering	3.94	4.25	4.76	+0.30	+0.82
OGV berthing	7.83	6.47	7.26	-1.36	-0.57
Harbor craft	3.82	1.63	0.81	-2.19	-3.01
Dredging	1.12	0.54	0.44	-0.58	-0.68
Bunkering	0.27	0.15	0.09	-0.12	-0.18
Port trucks	0.93	0.69	0.73	-0.24	-0.20
Road dust	2.25	2.70	3.03	+0.45	+0.78
Cargo handling	1.60	1.85	1.79	+0.25	+0.19
OGRE Railyard	0.07	<0.01	<0.01	-0.07	-0.07
BNSF Railyard	0.17	0.09	0.09	-0.08	-0.08
Rail	**2.09**	**1.51**	**1.09**	**-0.58**	**-0.99**
Rail lines	0.99	0.42	0.18	-0.58	-0.81
UP Railyard	1.09	1.09	0.91	0.00	-0.18
Permitted	**17.84**	**14.80**	**14.80**	**-3.04**	**-3.04**
Schnitzer (stationary)	5.20	4.74	4.74	-0.46	-0.46
EBMUD	3.99	4.12	4.12	+0.13	+0.13
Dynegy	1.96	2.34	2.34	+0.38	+0.38
Pinnacle Ag Services	1.48	1.05	1.05	-0.43	-0.43
Sierra Pacific	0.91	0.70	0.70	-0.21	-0.21

Source	PM$_{2.5}$ Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
CASS	0.72	0.32	0.32	-0.41	-0.41
California Cereal	0.58	0.45	0.45	-0.13	-0.13
CA Waste (10th St)	0.46	0.22	0.22	-0.24	-0.24
Other	2.54	0.87	0.87	-1.66	-1.66
Other	**1.36**	**1.30**	**0.78**	**-0.06**	**-0.58**
Ferries	0.91	0.86	0.47	-0.04	-0.44
Schnitzer (ships)	0.30	0.37	0.25	+0.07	-0.05
Schnitzer (trucks)	0.04	0.04	0.04	>-0.01	>-0.01
Truck-related businesses	0.11	0.03	0.03	-0.09	-0.09
Total – modeled sources	**85.85**	**77.59**	**77.33**	**-8.26**	**-8.53**
Area	**30.40**	**31.68**	**32.57**	**+1.29**	**+2.17**
Commercial cooking	20.63	21.75	22.59	+1.12	+1.96
Food and Agriculture	–	–	–	–	–
Residential fuel combustion	6.93	6.99	6.98	+0.06	+0.05
Commercial/industrial fuel combustion	2.30	2.39	2.44	+0.09	+0.13
Industrial processes	0.03	0.03	0.04	0.00	+0.01
Solvent utilization	–	–	–	–	–
Consumer products	–	–	–	–	–
Other area sources	0.50	0.52	0.53	+0.01	+0.02
Non-road	**14.18**	**12.25**	**12.37**	**-1.93**	**-1.82**
Construction equipment	4.10	2.39	2.18	-1.71	-1.92
Commercial/industrial equipment	1.17	0.97	0.90	-0.20	-0.27
Lawn & garden equipment	0.12	0.13	0.10	+0.01	-0.02
TRUs	0.24	0.06	0.02	-0.18	-0.22
Other non-road sources	1.81	1.00	0.76	-0.80	-1.05
Total – non-modeled sources	**44.58**	**43.93**	**44.94**	**-0.65**	**+0.36**
Grand Total	**130.43**	**121.52**	**122.26**	**-8.91**	**-8.17**

Best Methods Inventory

This section provides additional details on the "best methods" emissions inventory that makes use of models and datasets not available at the time WOCAP was developed. Updated information used to create this alternative inventory include:

- *CARB's EMFAC2021 model for on-road mobile sources* – among other changes, PM$_{2.5}$ emission rates for brake wear from light-duty vehicles are about 70% lower in EMFAC2021 than in EMFAC2017 (the version used during WOCAP development).

- *Updated data for ocean-going vessels (OGV)* – for example, new vessel speed profiles were developed using data from the Coast Guard's Automatic Identification System (AIS), which provides vessel speed and location information via automated radio links.
- *Updated data for commercial harbor craft (CHC)* – in 2021, CARB updated their emissions methodology for CHC, which included updated load factors and emission factors that significantly reduced emissions estimates.
- Updated road type assignments for road dust estimates – the CARB methodology for road dust emissions uses silt loading estimates that vary by road type (freeway, major/collector, local). Previously, the Air District classified West Oakland roads based on functional classifications from the Citilabs telematics data used to estimate on-road emissions for the community. Subsequently, the Air District developed a more refined approach that assigned road types based on traffic activity levels on each roadway.

Tables A4-4 through A4-6 provide detailed emissions estimates for the best methods inventory that parallel those listed above for the historical inventory (note that only modeled sources are shown, as the best methods updates did not affect non-modeled sources). The tables show that the best methods updates generally resulted in lower emissions relative to the original WOCAP inventory. For example, DPM emissions in the 2017 best methods inventory total 16.72 tons, which is 30% lower than the corresponding total in the original 2017 inventory (23.87 tons). This difference is largely driven by lower emissions for on-road mobile sources, OGV maneuvering, and harbor craft. Similarly, $PM_{2.5}$ emissions in the 2017 best methods inventory total 58.54 tons, which is 32% lower than the corresponding total of 85.85 tons in the original 2017 inventory. This difference is largely driven by lower emissions for road dust, OGV maneuvering, and harbor craft.

Despite the differences, changes between 2017 and 2024 are fairly consistent between the historical and best methods inventories. Over that period, DPM emissions are reduced by 7.52 tons (31%) in the historical inventory and 6.63 tons (39%) in the best methods inventory. For $PM_{2.5}$, emissions are reduced by 8.26 tons (10%) in the historical inventory and 5.46 tons (9%) in the best method inventory. These findings indicate that similar patterns of emissions reductions are found using either inventory approach.

Table A4-4. Diesel PM Emissions Summaries and Differences, Best Methods (tons per year)

Source	DPM Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Highway	**2.85**	**0.44**	**0.28**	**-2.41**	**-2.57**
Non-truck vehicles	0.26	0.08	0.04	-0.19	-0.22
HD/Medium HD trucks	2.39	0.22	0.13	-2.16	-2.26
Light HD trucks	0.20	0.14	0.11	-0.06	-0.09
Street	**1.16**	**0.14**	**0.09**	**-1.02**	**-1.07**
Non-truck vehicles	0.06	0.02	0.01	-0.04	-0.05
HD/Medium HD trucks	1.01	0.06	0.03	-0.95	-0.98
Light HD trucks	0.09	0.06	0.05	-0.03	-0.04

Source	DPM Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Port	**8.46**	**6.05**	**6.12**	**-2.41**	**-2.34**
OGV maneuvering	0.50	0.57	0.64	+0.07	+0.14
OGV berthing	4.31	2.64	2.96	-1.67	-1.35
Harbor craft	0.86	0.37	0.18	-0.49	-0.67
Dredging	0.25	0.34	0.28	+0.09	+0.02
Bunkering	0.17	0.03	0.02	-0.14	-0.15
Port trucks	0.53	0.15	0.14	-0.38	-0.40
Cargo handling	1.57	1.85	1.79	+0.28	+0.23
OGRE Railyard	0.08	<0.01	<0.01	-0.08	-0.08
BNSF Railyard	0.18	0.10	0.09	-0.08	-0.09
Rail	**2.66**	**2.02**	**1.51**	**-0.64**	**-1.15**
Rail lines	1.09	0.20	0.20	-0.64	-0.89
UP Railyard	1.57	0.92	1.31	0.00	-0.26
Permitted	**0.30**	**0.18**	**0.18**	**-0.12**	**-0.12**
Schnitzer (stationary)	–	<0.01	<0.01	<0.01	<0.01
EBMUD	0.09	0.04	0.04	-0.05	-0.05
Dynegy	<0.01	0.00	0.00	>-0.01	>-0.01
Pinnacle Ag Services	–	–	–	–	–
Sierra Pacific	–	–	–	–	–
CASS	–	–	–	–	–
California Cereal	–	–	–	–	–
CA Waste (10th St)	–	–	–	–	–
Other	0.21	0.14	0.14	-0.07	-0.07
Other	**1.30**	**1.25**	**0.73**	**-0.04**	**-0.56**
Ferries	0.93	0.89	0.49	-0.04	-0.44
Schnitzer (ships)	0.24	0.32	0.21	+0.08	-0.03
Schnitzer (trucks)	0.01	< 0.01	<0.01	-0.01	-0.01
Truck-related businesses	0.11	0.04	0.03	-0.07	-0.08
Total – modeled sources	**16.72**	**10.09**	**8.90**	**-6.63**	**-7.83**

Table A4-5. Cancer Risk-Weighted Emissions Summaries and Differences, Best Methods (unitless)

Source	Risk-weighted Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Highway	**2,385**	**463**	**311**	**-1,923**	**-2,074**
Non-truck vehicles	420	176	122	-244	-299
HD/Medium HD trucks	1,804	175	102	-1,629	-1,702

Source	Risk-weighted Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Light HD trucks	161	111	88	-49	-73
Street	**945**	**140**	**94**	**-804**	**-851**
Non-truck vehicles	103	43	30	-60	-73
HD/Medium HD trucks	773	51	27	-722	-745
Light HD trucks	69	47	37	-22	-32
Port	**6,352**	**4,534**	**4,584**	**-1,819**	**-1,768**
OGV maneuvering	373	426	479	+54	+106
OGV berthing	3,255	1,992	2,236	-1,263	-1,019
Harbor craft	639	276	137	-364	-502
Dredging	187	252	205	+65	+19
Bunkering	128	25	16	-102	-112
Port trucks	410	112	105	-298	-305
Cargo handling	1,168	1,375	1,336	+206	+168
OGRE Railyard	57	1	1	-56	-56
BNSF Railyard	136	74	69	-61	-66
Rail	**1,980**	**1,507**	**1,121**	**-473**	**-859**
Rail lines	810	337	148	-473	-662
UP Railyard	1,170	1,170	973	0	-197
Permitted	**2,125**	**1,597**	**1,597**	**-528**	**-528**
Schnitzer (stationary)	823	944	944	121	121
EBMUD	110	69	69	-41	-41
Dynegy	1	2	2	2	2
Pinnacle Ag Services	–	–	–	–	–
Sierra Pacific	–	–	–	–	–
CASS	1,024	459	459	-565	-565
California Cereal	<1	<1	<1	<1	<1
CA Waste (10th St)	–	–	–	–	–
Other	168	122	122	-46	-46
Other	**988**	**964**	**565**	**-24**	**-424**
Ferries	695	664	368	-31	-327
Schnitzer (ships)	202	267	174	65	-28
Schnitzer (trucks)	7	<1	<1	-6	-6
Truck-related businesses	84	32	22	-52	-62
Total – modeled sources	**14,763**	**9,204**	**8,272**	**-5,572**	**-6,504**

Table A4-6. $PM_{2.5}$ Emissions Summaries and Differences, Best Methods (tons per year)

Source	$PM_{2.5}$ Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Highway	**15.43**	**14.02**	**14.02**	**-1.41**	**-1.41**
Non-truck vehicles	5.23	5.18	4.88	-0.04	-0.35
HD/Medium HD trucks	3.14	1.11	1.04	-2.03	-2.10
Light HD trucks	0.58	0.55	0.52	-0.03	-0.05
Road dust	6.49	7.18	7.58	+0.69	+1.09
Street	**6.52**	**5.95**	**6.09**	**-0.57**	**-0.43**
Non-truck vehicles	1.13	1.10	1.02	-0.03	-0.10
HD/Medium HD trucks	1.35	0.46	0.44	-0.90	-0.91
Light HD trucks	0.20	0.18	0.17	-0.02	-0.03
Road dust	3.84	4.21	4.46	+0.37	+0.62
Port	**14.97**	**12.48**	**13.30**	**-2.49**	**-1.67**
OGV maneuvering	0.66	0.71	0.79	+0.05	+0.14
OGV berthing	7.83	5.56	6.24	-2.27	-1.59
Harbor craft	0.89	0.36	0.18	-0.53	-0.71
Dredging	0.24	0.33	0.27	+0.09	+0.03
Bunkering	0.17	0.03	0.02	-0.14	-0.15
Port trucks	1.10	0.85	0.89	-0.25	-0.21
Road dust	2.25	2.70	3.03	+0.45	+0.78
Cargo handling	1.60	1.85	1.79	+0.25	+0.19
OGRE Railyard	0.07	<0.01	<0.01	-0.07	-0.07
BNSF Railyard	0.17	0.09	0.09	-0.08	-0.08
Rail	**2.44**	**1.86**	**1.38**	**-0.58**	**-1.05**
Rail lines	0.99	0.42	0.18	-0.58	-0.81
UP Railyard	1.44	1.44	1.20	0.00	-0.24
Permitted	**17.84**	**17.46**	**17.46**	**-0.39**	**-0.39**
Schnitzer (stationary)	5.20	4.74	4.74	-0.46	-0.46
EBMUD	3.99	4.12	4.12	+0.13	+0.13
Dynegy	1.96	2.34	2.34	+0.38	+0.38
Pinnacle Ag Services	1.48	1.05	1.05	-0.43	-0.43
Sierra Pacific	0.91	3.35	3.35	+2.24	+2.24
CASS	0.72	0.32	0.32	-0.41	-0.41
California Cereal	0.58	0.45	0.45	-0.13	-0.13
CA Waste (10th St)	0.46	0.22	0.22	-0.24	-0.24
Other	2.54	0.87	0.87	-1.66	-1.66
Other	**1.33**	**1.31**	**0.80**	**-0.02**	**-0.53**
Ferries	0.91	0.86	0.48	-0.04	-0.43

Source	PM$_{2.5}$ Emissions			Differences	
	2017	2024	2029	2017-2024	2017-2029
Schnitzer (ships)	0.28	0.36	0.25	+0.09	-0.03
Schnitzer (trucks)	0.04	0.04	0.04	>-0.01	>-0.01
Truck-related businesses	0.11	0.04	0.03	-0.07	-0.08
Total – modeled sources	**58.54**	**53.08**	**53.06**	**-5.46**	**-5.48**