APPENDIX 2 – SUMMARY OF UNADJUSTED PESTICIDE VOC EMISSIONS

1. Sacramento Metropolitan Area - NAA 1

TABLE A2-1a: Top ten primary active ingredients contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 1, the Sacramento Metropolitan Area.

Primary AI	Total Product Emissions (tons/day)	Percent of all NAA 1 May – Oct 2009 emissions
1,3-DICHLOROPROPENE	0.247	21.67
CHLORPYRIFOS	0.086	7.53
THIOBENCARB	0.052	4.60
PROPANIL	0.052	4.54
METHYL BROMIDE	0.040	3.47
TRIFLURALIN	0.035	3.07
POTASSIUM N-METHYLDITHIOCARBAMATE	0.033	2.94
OXYFLUORFEN	0.033	2.88
METAM-SODIUM	0.032	2.80
ABAMECTIN	0.029	2.51

TABLE A2-1b: Top ten primary active ingredients contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 1, the Sacramento Metropolitan Area.

Primary AI	Total Product Emissions (tons/day)	Percent of all NAA 1 May – Oct 2010 emissions
1,3-DICHLOROPROPENE	0.080	7.52
CHLORPYRIFOS	0.076	7.11
METHYL BROMIDE	0.064	5.97
TRIFLURALIN	0.055	5.15
THIOBENCARB	0.048	4.47
ABAMECTIN	0.046	4.31
PROPANIL	0.038	3.54
PENOXSULAM	0.037	3.47
ETHEPHON	0.032	3.03
ETHALFLURALIN	0.030	2.85

TABLE A2-1c: Top ten primary active ingredients contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 1, the Sacramento Metropolitan Area.

Primary AI	Total Product Emissions (tons/day)	Percent of all NAA 1 May – Oct 2011 emissions
1,3-DICHLOROPROPENE	0.077	6.97
BIFENTHRIN	0.075	6.82
CHLORPYRIFOS	0.058	5.23
ABAMECTIN	0.056	5.05
PENOXSULAM	0.047	4.23
METHYL BROMIDE	0.046	4.15
OXYFLUORFEN	0.043	3.86
THIOBENCARB	0.042	3.77
TRIFLURALIN	0.037	3.34
GLUFOSINATE-AMMONIUM	0.035	3.20

TABLE A2-1d: Top ten primary active ingredients contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 1, the Sacramento Metropolitan Area.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 1 May – Oct 2012 emissions**
1,3-DICHLOROPROPENE	0.203	13.79
BIFENTHRIN	0.100	6.82
PERMETHRIN	0.093	6.35
ABAMECTIN	0.083	5.66
PROPANIL	0.071	4.79
CHLORPYRIFOS	0.056	3.83
TRIFLURALIN	0.052	3.51
THIOBENCARB	0.051	3.45
PENOXSULAM	0.050	3.37
BETA-CYFLUTHRIN	0.047	3.16

TABLE A2-1e: Top ten pesticide application sites contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 1.

Application Site	**Emissions (tons/day)**	**Percent of all NAA 1 May – Oct 2009 emissions**
RICE (ALL OR UNSPEC)	0.192	16.82
GRAPES, WINE	0.177	15.57
SOIL APPLICATION, PREPLANT-OUTDOOR (SEEDBEDS,ETC.)	0.128	11.23
WALNUT (ENGLISH WALNUT, PERSIAN WALNUT)	0.116	10.16
TOMATOES, FOR PROCESSING/CANNING	0.115	10.10
STRUCTURAL PEST CONTROL	0.054	4.76
RIGHTS OF WAY	0.046	4.03
LANDSCAPE MAINTENANCE	0.044	3.83
ORNAMENTAL TURF (ALL OR UNSPEC)	0.033	2.94
ALMOND	0.033	2.89

TABLE A2-1f: Top ten pesticide application sites contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 1.

Application Site	**Emissions (tons/day)**	**Percent of all NAA 1 May – Oct 2010 emissions**
RICE (ALL OR UNSPEC)	0.206	19.40
WALNUT (ENGLISH WALNUT, PERSIAN WALNUT)	0.164	15.38
TOMATOES, FOR PROCESSING/CANNING	0.155	14.55
RIGHTS OF WAY	0.056	5.25
GRAPES, WINE	0.055	5.20
STRUCTURAL PEST CONTROL	0.048	4.49
LANDSCAPE MAINTENANCE	0.047	4.43
ALMOND	0.038	3.59
COMMODITY FUMIGATION	0.035	3.26
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.033	3.09

TABLE A2-1g: Top ten pesticide application sites contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 1.

Application Site	Emissions (tons/day)	Percent of all NAA 1 May – Oct 2011 emissions
RICE (ALL OR UNSPEC)	0.201	18.16
WALNUT (ENGLISH WALNUT, PERSIAN WALNUT)	0.187	16.89
TOMATOES, FOR PROCESSING/CANNING	0.130	11.78
STRUCTURAL PEST CONTROL	0.093	8.45
GRAPES, WINE	0.078	7.04
RIGHTS OF WAY	0.059	5.31
ALMOND	0.055	4.93
LANDSCAPE MAINTENANCE	0.044	3.95
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.038	3.43
SUNFLOWER, GENERAL	0.032	2.91

TABLE A2-1h: Top ten pesticide application sites contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 1.

Application Site	Emissions (tons/day)	Percent of all NAA 1 May – Oct 2012 emissions
RICE (ALL OR UNSPEC)	0.272	18.46
STRUCTURAL PEST CONTROL	0.221	14.99
WALNUT (ENGLISH WALNUT, PERSIAN WALNUT)	0.205	13.91
TOMATOES, FOR PROCESSING/CANNING	0.166	11.30
LANDSCAPE MAINTENANCE	0.099	6.73
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.095	6.43
GRAPES, WINE	0.082	5.54
RIGHTS OF WAY	0.041	2.75
ALMOND	0.038	2.57
SUNFLOWER, GENERAL	0.031	2.08

TABLE A2-1i: *Unadjusted* **2009** May–October VOC emissions in NAA1 by ARB emission inventory classification (tons per day, tpd).

NAA 1 - 2009	Agricultural Applications	Structural Applications
METHYL BROMIDE EMISSIONS	0.036	0.000
NON-METHYL BROMIDE EMISSIONS	1.045	0.054

TABLE A2-1j: *Unadjusted* **2010** May–October VOC emissions in NAA1 by ARB emission inventory classification (tons per day, tpd).

NAA 1 - 2010	Agricultural Applications	Structural Applications
METHYL BROMIDE EMISSIONS	0.058	0.000
NON-METHYL BROMIDE EMISSIONS	0.953	0.048

TABLE A2-1k: *Unadjusted* **2011** May–October VOC emissions in NAA1 by ARB emission inventory classification (tons per day, tpd).

NAA 1 - 2011	Agricultural Applications	Structural Applications
METHYL BROMIDE EMISSIONS	0.038	0.000
NON-METHYL BROMIDE EMISSIONS	0.967	0.094

TABLE A2-1l: *Unadjusted* **2012** May–October VOC emissions in NAA1 by ARB emission inventory classification (tons per day, tpd).

NAA 1 - 2012	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.012	0.000
NON-METHYL BROMIDE EMISSIONS	1.238	0.221

2. San Joaquin Valley - NAA 2

TABLE A2-2a: Top ten primary active ingredients contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 2, the San Joaquin Valley.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 2 May – Oct 2009 emissions**
METAM-SODIUM	4.560	21.71
1,3-DICHLOROPROPENE	4.192	19.96
CHLORPYRIFOS	1.397	6.65
METHYL BROMIDE	1.235	5.88
POTASSIUM N-METHYLDITHIOCARBAMATE	0.987	4.70
ABAMECTIN	0.818	3.90
OXYFLUORFEN	0.809	3.85
GIBBERELLINS	0.729	3.47
DIMETHOATE	0.489	2.33
GLUFOSINATE-AMMONIUM	0.413	1.97

TABLE A2-2b: Top ten primary active ingredients contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 2, the San Joaquin Valley.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 2 May – Oct 2010 emissions**
1,3-DICHLOROPROPENE	5.555	22.70
METAM-SODIUM	4.374	17.87
CHLORPYRIFOS	1.856	7.58
POTASSIUM N-METHYLDITHIOCARBAMATE	1.543	6.30
METHYL BROMIDE	1.379	5.63
ABAMECTIN	1.103	4.51
OXYFLUORFEN	0.687	2.81
GIBBERELLINS	0.632	2.58
GLYPHOSATE, ISOPROPYLAMINE SALT	0.461	1.88
GLUFOSINATE-AMMONIUM	0.428	1.75

TABLE A2-2c: Top ten primary active ingredients contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 2, the San Joaquin Valley.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 2 May – Oct 2011 emissions**
1,3-DICHLOROPROPENE	7.231	27.30
METAM-SODIUM	4.644	17.53
CHLORPYRIFOS	1.975	7.45
ABAMECTIN	1.569	5.92
POTASSIUM N-METHYLDITHIOCARBAMATE	1.316	4.97
METHYL BROMIDE	0.839	3.17
OXYFLUORFEN	0.633	2.39
GIBBERELLINS	0.622	2.35
BIFENTHRIN	0.495	1.87
GLYPHOSATE, ISOPROPYLAMINE SALT	0.423	1.60

TABLE A2-2d: Top ten primary active ingredients contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 2, the San Joaquin Valley.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 2 May – Oct 2012 emissions**
1,3-DICHLOROPROPENE	6.658	25.12
METAM-SODIUM	3.305	12.47
POTASSIUM N-METHYLDITHIOCARBAMATE	2.946	11.11
METHYL BROMIDE	1.780	6.72
ABAMECTIN	1.766	6.66
CHLORPYRIFOS	1.381	5.21
OXYFLUORFEN	0.773	2.91
GLYPHOSATE, ISOPROPYLAMINE SALT	0.593	2.24
GIBBERELLINS	0.580	2.19
BIFENTHRIN	0.494	1.86

TABLE A2-2e: Top ten pesticide application sites contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 2.

Application Site	**Emissions (tons/day)**	**Percent of all NAA 2 May – Oct 2009 emissions**
CARROTS, GENERAL	3.853	18.34
ALMOND	3.201	15.24
ORANGE (ALL OR UNSPEC)	1.240	5.90
GRAPES	1.181	5.62
POTATO (WHITE, IRISH, RED, RUSSET)	0.942	4.48
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.939	4.47
TOMATOES, FOR PROCESSING/CANNING	0.840	4.00
SOIL APPLICATION, PREPLANT-OUTDOOR (SEEDBEDS,ETC.)	0.787	3.74
WALNUT (ENGLISH WALNUT, PERSIAN WALNUT)	0.749	3.57
GRAPES, WINE	0.673	3.20

TABLE A2-2f: Top ten pesticide application sites contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 2.

Application Site	Emissions (tons/day)	Percent of all NAA 2 May – Oct 2010 emissions
ALMOND	3.880	15.86
CARROTS, GENERAL	3.787	15.48
COTTON, GENERAL	1.515	6.19
SOIL APPLICATION, PREPLANT-OUTDOOR (SEEDBEDS,ETC.)	1.303	5.33
TOMATOES, FOR PROCESSING/CANNING	1.259	5.14
GRAPES	1.255	5.13
N-OUTDR CONTAINER/FLD GRWN PLANTS	1.025	4.19
ORANGE (ALL OR UNSPEC)	1.004	4.10
WALNUT (ENGLISH WALNUT, PERSIAN WALNUT)	0.899	3.68
POTATO (WHITE, IRISH, RED, RUSSET)	0.891	3.64

TABLE A2-2g: Top ten pesticide application sites contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 2.

Application Site	Emissions (tons/day)	Percent of all NAA 2 May – Oct 2011 emissions
ALMOND	3.926	14.82
CARROTS, GENERAL	3.670	13.85
COTTON, GENERAL	2.488	9.39
GRAPES	1.597	6.03
ORANGE (ALL OR UNSPEC)	1.210	4.57
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.944	3.57
ONION (DRY, SPANISH, WHITE, YELLOW, RED, ETC.)	0.933	3.52
SOIL APPLICATION, PREPLANT-OUTDOOR (SEEDBEDS,ETC.)	0.891	3.36
POTATO (WHITE, IRISH, RED, RUSSET)	0.890	3.36
WALNUT (ENGLISH WALNUT, PERSIAN WALNUT)	0.872	3.29

TABLE A2-2h: Top ten pesticide application sites contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 2.

Application Site	Emissions (tons/day)	Percent of all NAA 2 May – Oct 2012 emissions
CARROTS, GENERAL	4.385	16.54
ALMOND	4.316	16.28
SOIL APPLICATION, PREPLANT-OUTDOOR (SEEDBEDS,ETC.)	2.521	9.51
COTTON, GENERAL	1.479	5.58
TOMATOES, FOR PROCESSING/CANNING	1.160	4.38
WALNUT (ENGLISH WALNUT, PERSIAN WALNUT)	1.027	3.88
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.993	3.75
ORANGE (ALL OR UNSPEC)	0.965	3.64
ONION (DRY, SPANISH, WHITE, YELLOW, RED, ETC.)	0.919	3.47
GRAPES	0.787	2.97

TABLE A2-2i: *Unadjusted* **2009** May–October VOC emissions in NAA 2 by ARB emission inventory classification (tons per day, tpd).

NAA 2 - 2009	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.946	0.012
NON-METHYL BROMIDE EMISSIONS	19.581	0.189

TABLE A2-2j: *Unadjusted* **2010** May–October VOC emissions in NAA 2 by ARB emission inventory classification (tons per day, tpd).

NAA 2 - 2010	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	1.044	0.000
NON-METHYL BROMIDE EMISSIONS	22.858	0.236

TABLE A2-2k: *Unadjusted* **2011** May–October VOC emissions in NAA 2 by ARB emission inventory classification (tons per day, tpd).

NAA 2 - 2011	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.709	0.001
NON-METHYL BROMIDE EMISSIONS	25.380	0.271

TABLE A2-2l: *Unadjusted* **2012** May–October VOC emissions in NAA 2 by ARB emission inventory classification (tons per day, tpd).

NAA 2 - 2012	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	1.520	0.000
NON-METHYL BROMIDE EMISSIONS	24.444	0.286

3. Southeast Desert - NAA 3

TABLE A2-3a: Top ten primary active ingredients contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 3, the Southeast Desert.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 3 May – Oct 2009 emissions**
METAM-SODIUM	0.352	57.12
METHYL BROMIDE	0.079	12.80
BENSULIDE	0.019	3.06
SODIUM TETRATHIOCARBONATE	0.014	2.23
DAZOMET	0.014	2.21
1,3-DICHLOROPROPENE	0.011	1.85
PERMETHRIN	0.010	1.68
EPTC	0.007	1.16
SULFUR	0.007	1.13
TRIFLURALIN	0.005	0.85

TABLE A2-3b: Top ten primary active ingredients contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 3, the Southeast Desert.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 3 May – Oct 2010 emissions**
METAM-SODIUM	0.589	58.88
CHLOROPICRIN	0.147	14.72
1,3-DICHLOROPROPENE	0.036	3.56
BENSULIDE	0.032	3.24
METHYL BROMIDE	0.015	1.46
SODIUM TETRATHIOCARBONATE	0.014	1.44
DAZOMET	0.012	1.24
EPTC	0.011	1.15
CYFLUTHRIN	0.011	1.12
GIBBERELLINS	0.010	1.00

TABLE A2-3c: Top ten primary active ingredients contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 3, the Southeast Desert.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 3 May – Oct 2011 emissions**
METAM-SODIUM	0.381	61.45
1,3-DICHLOROPROPENE	0.062	10.06
CHLOROPICRIN	0.027	4.30
BENSULIDE	0.023	3.69
EPTC	0.011	1.84
PERMETHRIN	0.009	1.37
DAZOMET	0.008	1.29
GLYPHOSATE, ISOPROPYLAMINE SALT	0.007	1.15
BIFENTHRIN	0.006	1.01
N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE	0.006	0.92

TABLE A2-3d: Top ten primary active ingredients contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 3, the Southeast Desert.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 3 May – Oct 2012 emissions**
METAM-SODIUM	0.668	53.31
CHLOROPICRIN	0.180	14.32
POTASSIUM N-METHYLDITHIOCARBAMATE	0.162	12.93
BIFENTHRIN	0.025	1.97
BENSULIDE	0.024	1.89
PERMETHRIN	0.023	1.83
1,3-DICHLOROPROPENE	0.018	1.45
IMIDACLOPRID	0.017	1.32
GLYPHOSATE, ISOPROPYLAMINE SALT	0.013	1.02
N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE	0.010	0.78

TABLE A2-3e: Top ten pesticide application sites contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 3.

Application Site	Emissions (tons/day)	Percent of all NAA 3 May – Oct 2009 emissions
CARROTS, GENERAL	0.127	20.67
PEPPERS (FRUITING VEGETABLE), (BELL,CHILI, ETC.)	0.109	17.64
ORNAMENTAL TURF (ALL OR UNSPEC)	0.067	10.81
UNCULTIVATED AGRICULTURAL AREAS*	0.049	7.94
STRUCTURAL PEST CONTROL	0.046	7.43
SPINACH	0.026	4.20
WATERMELONS	0.024	3.87
GRAPES	0.019	3.15
CHINESE AMARANTH, CHINESE SPINACH (TAMPALA)	0.019	3.14
RIGHTS OF WAY	0.019	3.01

* Treatment of an area prior to determining which crop will be planted.

TABLE A2-3f: Top ten pesticide application sites contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 3.

Application Site	Emissions (tons/day)	Percent of all NAA 3 May – Oct 2010 emissions
PEPPERS (FRUITING VEGETABLE), (BELL,CHILI, ETC.)	0.276	27.55
STRAWBERRY (ALL OR UNSPEC)	0.149	14.86
CARROTS, GENERAL	0.087	8.65
WATERMELONS	0.079	7.88
STRUCTURAL PEST CONTROL	0.058	5.75
LETTUCE, LEAF (ALL OR UNSPEC)	0.056	5.60
UNCULTIVATED AGRICULTURAL AREAS*	0.053	5.28
CAULIFLOWER	0.029	2.90
POTATO (WHITE, IRISH, RED, RUSSET)	0.028	2.79
GRAPES	0.027	2.66

*Treatment of an area prior to determining which crop will be planted.

TABLE A2-3g: Top ten pesticide application sites contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 3.

Application Site	Emissions (tons/day)	Percent of all NAA 3 May – Oct 2011 emissions
PEPPERS (FRUITING VEGETABLE), (BELL,CHILI, ETC.)	0.280	45.20
UNCULTIVATED AGRICULTURAL AREAS*	0.112	18.07
STRUCTURAL PEST CONTROL	0.041	6.60
STRAWBERRY (ALL OR UNSPEC)	0.027	4.33
CORN, HUMAN CONSUMPTION	0.021	3.40
BEANS, SUCCULENT (OTHER THAN LIMA)	0.017	2.82
LETTUCE, LEAF (ALL OR UNSPEC)	0.017	2.72
LANDSCAPE MAINTENANCE	0.017	2.69
RIGHTS OF WAY	0.017	2.69
CHINESE GREENS, CHINESE LEAFY VEGETABLES	0.014	2.21

* Treatment of an area prior to determining which crop will be planted.

TABLE A2-3h: Top ten pesticide application sites contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 3.

Application Site	**Emissions (tons/day)**	**Percent of all NAA 3 May – Oct 2012 emissions**
PEPPERS (FRUITING VEGETABLE), (BELL,CHILI, ETC.)	0.438	34.94
STRAWBERRY (ALL OR UNSPEC)	0.180	14.33
BARLEY, GENERAL	0.162	12.93
UNCULTIVATED AGRICULTURAL AREAS (ALL OR UNSPEC)	0.148	11.83
STRUCTURAL PEST CONTROL	0.093	7.44
GRAPES	0.036	2.85
LANDSCAPE MAINTENANCE	0.030	2.42
CAULIFLOWER	0.023	1.83
CHINESE GREENS, CHINESE LEAFY VEGETABLES	0.018	1.44
LETTUCE, LEAF (ALL OR UNSPEC)	0.017	1.38

*Treatment of an area prior to determining which crop will be planted.

TABLE A2-3i: *Unadjusted* **2009** May–October VOC emissions in NAA 3 by ARB emission inventory classification (tons per day, tpd).

NAA 3 - 2009	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.077	0.000
NON-METHYL BROMIDE EMISSIONS	0.489	0.048

TABLE A2-3j: *Unadjusted* **2010** May–October VOC emissions in NAA 3 by ARB emission inventory classification (tons per day, tpd).

NAA 3 - 2010	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.015	0.000
NON-METHYL BROMIDE EMISSIONS	0.928	0.058

TABLE A2-3k: *Unadjusted* **2011** May–October VOC emissions in NAA 3 by ARB emission inventory classification (tons per day, tpd).

NAA 3 - 2011	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.005	0.000
NON-METHYL BROMIDE EMISSIONS	0.573	0.041

TABLE A2-3l: *Unadjusted* **2012** May–October VOC emissions in NAA 3 by ARB emission inventory classification (tons per day, tpd).

NAA 3 - 2012	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.007	0.000
NON-METHYL BROMIDE EMISSIONS	1.154	0.093

4. Ventura - NAA 4

TABLE A2-4a: Top ten primary active ingredients contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 4, Ventura.

Primary AI	Total Product Emissions (tons/day)	Percent of all NAA 4 May – Oct 2009 emissions
CHLOROPICRIN	4.174	61.40
METHYL BROMIDE	1.638	24.10
METAM-SODIUM	0.436	6.41
1,3-DICHLOROPROPENE	0.075	1.10
CHLORPYRIFOS	0.067	0.98
MINERAL OIL	0.041	0.61
ABAMECTIN	0.038	0.56
CLARIFIED HYDROPHOBIC EXTRACT OF NEEM OIL	0.035	0.51
OXAMYL	0.028	0.41
AZADIRACHTIN	0.022	0.33

TABLE A2-4b: Top ten primary active ingredients contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 4, Ventura.

Primary AI	Total Product Emissions (tons/day)	Percent of all NAA 4 May – Oct 2010 emissions
CHLOROPICRIN	4.801	51.51
METHYL BROMIDE	1.661	17.82
1,3-DICHLOROPROPENE	1.611	17.28
METAM-SODIUM	0.627	6.73
POTASSIUM N-METHYLDITHIOCARBAMATE	0.143	1.53
CHLORPYRIFOS	0.043	0.46
MINERAL OIL	0.037	0.40
ABAMECTIN	0.036	0.39
PETROLEUM OIL, UNCLASSIFIED	0.029	0.31
OXAMYL	0.022	0.24

TABLE A2-4c: Top ten primary active ingredients contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 4, Ventura.

Primary AI	Total Product Emissions (tons/day)	Percent of all NAA 4 May – Oct 2011 emissions
CHLOROPICRIN	3.722	39.04
METHYL BROMIDE	2.964	31.09
1,3-DICHLOROPROPENE	1.635	17.14
METAM-SODIUM	0.639	6.70
POTASSIUM N-METHYLDITHIOCARBAMATE	0.160	1.68
ABAMECTIN	0.034	0.36
MINERAL OIL	0.027	0.29
PETROLEUM OIL, UNCLASSIFIED	0.027	0.29
CHLORPYRIFOS	0.022	0.23
OXAMYL	0.022	0.23

TABLE A2-4d: Top ten primary active ingredients contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 4, Ventura.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 4 May – Oct 2012 emissions**
CHLOROPICRIN	5.577	56.76
METHYL BROMIDE	1.797	18.29
METAM-SODIUM	1.026	10.44
1,3-DICHLOROPROPENE	0.899	9.15
POTASSIUM N-METHYLDITHIOCARBAMATE	0.144	1.47
ABAMECTIN	0.034	0.35
CHLORPYRIFOS	0.033	0.34
MINERAL OIL	0.028	0.29
PETROLEUM OIL, UNCLASSIFIED	0.026	0.26
NOVALURON	0.015	0.15

TABLE A2-4e. Top ten pesticide application sites contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 4.

Application Site	**Emissions (tons/day)**	**Percent of all NAA 4 May – Oct 2009 emissions**
STRAWBERRY (ALL OR UNSPEC)	4.416	64.96
SOIL APPLICATION, PREPLANT-OUTDOOR (SEEDBEDS,ETC.)	1.783	26.23
LEMON	0.169	2.48
TOMATO	0.099	1.45
RASPBERRY (ALL OR UNSPEC)	0.089	1.31
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.035	0.52
AVOCADO (ALL OR UNSPEC)	0.033	0.49
ORNAMENTAL TURF (ALL OR UNSPEC)	0.028	0.41
N-OUTDR GRWN CUT FLWRS OR GREENS	0.025	0.37
CELERY, GENERAL	0.022	0.33

TABLE A2-4f. Top ten pesticide application sites contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 4.

Application Site	**Emissions (tons/day)**	**Percent of all NAA 4 May – Oct 2010 emissions**
STRAWBERRY (ALL OR UNSPEC)	7.494	80.41
SOIL APPLICATION, PREPLANT-OUTDOOR (SEEDBEDS,ETC.)	0.982	10.54
RASPBERRY (ALL OR UNSPEC)	0.160	1.71
LEMON	0.159	1.70
TOMATO	0.149	1.60
N-OUTDR GRWN CUT FLWRS OR GREENS	0.085	0.92
PEPPERS (FRUITING VEGETABLE), (BELL,CHILI, ETC.)	0.036	0.39
AVOCADO (ALL OR UNSPEC)	0.033	0.35
STRUCTURAL PEST CONTROL	0.025	0.27
CELERY, GENERAL	0.024	0.25

TABLE A2-4g. Top ten pesticide application sites contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 4.

Application Site	Emissions (tons/day)	Percent of all NAA 4 May – Oct 2011 emissions
STRAWBERRY (ALL OR UNSPEC)	8.384	87.78
RASPBERRY (ALL OR UNSPEC)	0.466	4.88
TOMATO	0.143	1.50
LEMON	0.124	1.30
CARROTS, GENERAL	0.073	0.76
PEPPERS (FRUITING VEGETABLE), (BELL,CHILI, ETC.)	0.070	0.74
N-OUTDR GRWN CUT FLWRS OR GREENS	0.055	0.58
AVOCADO (ALL OR UNSPEC)	0.030	0.32
STRUCTURAL PEST CONTROL	0.030	0.31
CELERY, GENERAL	0.018	0.19

TABLE A2-4h. Top ten pesticide application sites contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 4.

Application Site	Emissions (tons/day)	Percent of all NAA 4 May – Oct 2012 emissions
STRAWBERRY (ALL OR UNSPEC)	8.830	89.89
RASPBERRY (ALL OR UNSPEC)	0.362	3.68
TOMATO	0.146	1.49
N-OUTDR GRWN CUT FLWRS OR GREENS	0.132	1.35
LEMON	0.117	1.19
PEPPERS (FRUITING VEGETABLE), (BELL,CHILI, ETC.)	0.049	0.50
AVOCADO (ALL OR UNSPEC)	0.031	0.31
STRUCTURAL PEST CONTROL	0.024	0.24
CELERY, GENERAL	0.020	0.20
LANDSCAPE MAINTENANCE	0.010	0.10

TABLE A2-4i: *Unadjusted* **2009** May–October VOC emissions in NAA 4 by ARB emission inventory classification (tons per day, tpd).

NAA 4 - 2009	Agricultural Applications	Structural Applications
METHYL BROMIDE EMISSIONS	1.134	0.000
NON-METHYL BROMIDE EMISSIONS	5.160	0.000

TABLE A2-4j: *Unadjusted* **2010** May–October VOC emissions in NAA 4 by ARB emission inventory classification (tons per day, tpd).

NAA 4 - 2010	Agricultural Applications	Structural Applications
METHYL BROMIDE EMISSIONS	1.073	0.000
NON-METHYL BROMIDE EMISSIONS	7.635	0.025

TABLE A2-4k: *Unadjusted* **2011** May–October VOC emissions in NAA 4 by ARB emission inventory classification (tons per day, tpd).

NAA 4 - 2011	Agricultural Applications	Structural Applications
METHYL BROMIDE EMISSIONS	1.501	0.000
NON-METHYL BROMIDE EMISSIONS	6.557	0.030

TABLE A2-4l: *Unadjusted* **2012** May–October VOC emissions in NAA 4 by ARB emission inventory classification (tons per day, tpd).

NAA 4 - 2012	Agricultural Applications	Structural Applications
METHYL BROMIDE EMISSIONS	0.898	0.000
NON-METHYL BROMIDE EMISSIONS	8.003	0.024

5. South Coast - NAA 5

TABLE A2-5a: Top ten primary active ingredients contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 5, South Coast.

Primary AI	Total Product Emissions (tons/day)	Percent of all NAA 5 May – Oct 2009 emissions
CHLOROPICRIN	0.325	20.06
METHYL BROMIDE	0.298	18.38
PERMETHRIN	0.199	12.26
N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE	0.080	4.92
LIMONENE	0.070	4.29
CYFLUTHRIN	0.065	4.02
DAZOMET	0.042	2.62
BIFENTHRIN	0.037	2.31
PIPERONYL BUTOXIDE	0.036	2.23
DISODIUM OCTABORATE TETRAHYDRATE	0.035	2.18

TABLE A2-5b: Top ten primary active ingredients contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 5, South Coast.

Primary AI	Total Product Emissions (tons/day)	Percent of all NAA 5 May – Oct 2010 emissions
CHLOROPICRIN	0.315	15.65
CYFLUTHRIN	0.262	13.04
METHYL BROMIDE	0.227	11.30
PERMETHRIN	0.221	10.97
DISODIUM OCTABORATE TETRAHYDRATE	0.155	7.71
N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE	0.087	4.32
1,3-DICHLOROPROPENE	0.076	3.78
IMIDACLOPRID	0.067	3.34
PIPERONYL BUTOXIDE	0.058	2.88
BIFENTHRIN	0.042	2.09

TABLE A2-5c: Top ten primary active ingredients contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 5, South Coast.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 5 May – Oct 2011 emissions**
CHLOROPICRIN	0.269	19.57
PERMETHRIN	0.219	15.95
N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE	0.090	6.55
METHYL BROMIDE	0.087	6.36
1,3-DICHLOROPROPENE	0.077	5.57
BIFENTHRIN	0.062	4.51
FIPRONIL	0.040	2.90
DISODIUM OCTABORATE TETRAHYDRATE	0.039	2.83
CYFLUTHRIN	0.034	2.48
LIMONENE	0.033	2.37

TABLE A2-5d: Top ten primary active ingredients contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 5, South Coast.

Primary AI	**Total Product Emissions (tons/day)**	**Percent of all NAA 5 May – Oct 2012 emissions**
CHLOROPICRIN	0.304	17.34
PERMETHRIN	0.247	14.06
METHYL BROMIDE	0.203	11.56
N-OCTYL BICYCLOHEPTENE DICARBOXIMIDE	0.143	8.15
1,3-DICHLOROPROPENE	0.142	8.08
BIFENTHRIN	0.115	6.57
IMIDACLOPRID	0.052	2.98
CYFLUTHRIN	0.039	2.25
DISODIUM OCTABORATE TETRAHYDRATE	0.035	2.00
GLYPHOSATE, ISOPROPYLAMINE SALT	0.034	1.95

TABLE A2-5e: Top ten pesticide application sites contributing to **2009** May-October ozone season *unadjusted* VOC emissions in NAA 5.

Application Site	**Emissions (tons/day)**	**Percent of all NAA 5 May – Oct 2009 emissions**
STRUCTURAL PEST CONTROL	0.652	40.24
STRAWBERRY (ALL OR UNSPEC)	0.561	34.57
LANDSCAPE MAINTENANCE	0.157	9.70
RIGHTS OF WAY	0.057	3.53
FUMIGATION, OTHER	0.045	2.77
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.030	1.85
COMMODITY FUMIGATION	0.023	1.40
ORANGE (ALL OR UNSPEC)	0.018	1.13
PEPPERS (FRUITING VEGETABLE), (BELL,CHILI, ETC.)	0.011	0.70
CABBAGE	0.010	0.64

TABLE A2-5f: Top ten pesticide application sites contributing to **2010** May-October ozone season *unadjusted* VOC emissions in NAA 5.

Application Site	Emissions (tons/day)	Percent of all NAA 5 May – Oct 2010 emissions
STRUCTURAL PEST CONTROL	1.014	50.41
STRAWBERRY (ALL OR UNSPEC)	0.512	25.44
LANDSCAPE MAINTENANCE	0.168	8.36
FUMIGATION, OTHER	0.081	4.04
N-OUTDR GRWN CUT FLWRS OR GREENS	0.077	3.83
RIGHTS OF WAY	0.046	2.29
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.026	1.29
COMMODITY FUMIGATION	0.019	0.93
AVOCADO (ALL OR UNSPEC)	0.009	0.43
CABBAGE	0.008	0.42

TABLE A2-5g: Top ten pesticide application sites contributing to **2011** May-October ozone season *unadjusted* VOC emissions in NAA 5.

Application Site	Emissions (tons/day)	Percent of all NAA 5 May – Oct 2011 emissions
STRUCTURAL PEST CONTROL	0.685	49.82
STRAWBERRY (ALL OR UNSPEC)	0.354	25.72
LANDSCAPE MAINTENANCE	0.132	9.60
FUMIGATION, OTHER	0.059	4.29
RIGHTS OF WAY	0.042	3.08
COMMODITY FUMIGATION	0.020	1.45
N-GRNHS GRWN PLANTS IN CONTAINERS	0.017	1.26
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.013	0.92
SOIL APPLICATION, PREPLANT-OUTDOOR (SEEDBEDS,ETC.)	0.009	0.62
AVOCADO (ALL OR UNSPEC)	0.008	0.61

TABLE A2-5h: Top ten pesticide application sites contributing to **2012** May-October ozone season *unadjusted* VOC emissions in NAA 5.

Application Site	Emissions (tons/day)	Percent of all NAA 5 May – Oct 2012 emissions
STRUCTURAL PEST CONTROL	0.809	46.13
STRAWBERRY (ALL OR UNSPEC)	0.493	28.12
LANDSCAPE MAINTENANCE	0.179	10.18
FUMIGATION, OTHER	0.099	5.65
RIGHTS OF WAY	0.039	2.24
GRAPES, WINE	0.037	2.13
COMMODITY FUMIGATION	0.020	1.14
N-OUTDR CONTAINER/FLD GRWN PLANTS	0.017	0.97
ORANGE (ALL OR UNSPEC)	0.009	0.50
CABBAGE	0.007	0.37

TABLE A2-5i: *Unadjusted* **2009** May–October VOC emissions in NAA 5 by ARB emission inventory classification (tons per day, tpd).

NAA 5 - 2009	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.224	0.002
NON-METHYL BROMIDE EMISSIONS	0.667	0.656

TABLE A2-5j: *Unadjusted* **2010** May–October VOC emissions in NAA 5 by ARB emission inventory classification (tons per day, tpd).

NAA 5 - 2010	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.185	0.002
NON-METHYL BROMIDE EMISSIONS	0.771	1.013

TABLE A2-5k: *Unadjusted* **2011** May–October VOC emissions in NAA 5 by ARB emission inventory classification (tons per day, tpd).

NAA 5 - 2011	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.083	0.002
NON-METHYL BROMIDE EMISSIONS	0.603	0.684

TABLE A2-5l: *Unadjusted* **2012** May–October VOC emissions in NAA 5 by ARB emission inventory classification (tons per day, tpd).

NAA 5 - 2012	**Agricultural Applications**	**Structural Applications**
METHYL BROMIDE EMISSIONS	0.161	0.000
NON-METHYL BROMIDE EMISSIONS	0.742	0.810