

Draft
Summary of Selected Control Measure Impacts
On High Wind Design Day Concentration at Maricopa Monitor
10/27/2008

Emission Source Category/Control Measure	Design Day		Control Measure Reduction (µg/m ³)	Percent of Total Control Measure Reductions
	Share	Concentration (µg/m ³)		
Design Day Concentration	100%	159.4	-	-
Non-Anthropogenic Background	11.0%	17.5	-	-
Anthropogenic Emission Sources	89.0%	141.9	-	-
Agriculture	13.6%	19.3	-	-
Residue Management			2.3	6.3%
Cleared Areas	16.0%	22.7	-	-
No Controls			-	-
Construction	43.6	61.9	34.0	93.7%
Watering When Wind Events Are Declared				
Desert Shrubland	8.9%	12.6	-	-
No Controls			-	-
Developed Rural Lands	6.2%	8.8	-	-
No Controls			-	-
Developed Urban Lands	7.2%	10.2	-	-
No Controls			-	-
Unpaved Ag Roads	1.8%	2.6	-	-
No Controls			-	-
Other	2.6%	3.7	-	-
No Controls			-	-
Total Control Measure Reductions			36.3	100.0%
Design Day with Control Measure Benefits		123.1	-	-

**Summary of Benefits for Agriculture Fields Reduction on Modeled PM10 Concentrations at Maricopa on October 27, 2008
High Wind Design Day (159.4 µg/m3)**

Rank	Control Measures	Control Efficiency	Modeled Concentration After Control (µg/m3)	Modeled Design Day Concentration (µg/m3)	Modeled Control Benefit (%)	Total Control Measure Reduction (µg/m3)
Baseline Modeled Concentration						19.3
5	Artificial Wind Barrier	45.0%	10.8	150.9	43.8%	8.5
6	Cover crop	43.0%	11.2	151.3	41.8%	8.1
1	Cross-wind Ridges	57.0%	8.6	148.7	55.5%	10.7
2	Mulching	53.0%	9.3	149.4	51.6%	10.0
10	Residue Management	12.0%	17.0	157.1	11.7%	2.3
4.0	Surface roughing	45.0%	10.8	150.9	43.8%	8.5
8	Tree, Shrub, or windbreak Planting	25.0%	14.6	154.7	24.3%	4.7
10&5		12% &45%	9.6	149.7	50.2%	9.7
2&8		53% &25%	7.1	147.2	63.0%	12.2
4&5		45% &45%	6.2	146.3	67.9%	13.1

Summary of Benefits for Construction Reduction on Modeled PM10 Concentrations at Maricopa on October 27, 2008 High Wind Design Day (159.4 µg/m3)

Control Measures	Control Efficiency	Modeled Concentration After Control (µg/m3)	Modeled Design Day Concentration (µg/m3)	Modeled Control Benefit (%)	Total Control Measure Reduction (µg/m3)
Baseline Modeled Concentration					61.7
Watering upon forecast of wind event	90% on disturbed Soil	27.7	125.4	55%	34.0
Palliative	70% On Stable Soil	49.6	147.3	20%	12.1