

Draft
Summary of Selected Control Measure Impacts
On High Wind Design Day Concentration at Pinal County Housing Monitor
01/01/2008

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%	264.9	-	-
Non-Anthropogenic Background	6.6%	17.5	-	-
Anthropogenic Emission Sources	93.4%	247.4	-	-
Agriculture	76.4%	189.0	-	-
		Mulching	99.5	81.9%
		Tree, Shrub or Windbreak Planting	22.0	18.1%
Cleared Areas	2.4%	5.9	-	-
		No Controls	-	-
Desert Shrubland	7.3%	18.1	-	-
		No Controls	-	-
Developed Rural Lands	3.0%	7.4	-	-
		No Controls	-	-
Unpaved Ag Roads	6.6%	16.3	-	-
		No Controls	-	-
Unpaved Private Roads	1.2%	3.0	-	-
		No Controls	-	-
Unpaved Public Roads	2.3%	5.7	-	-
		No Controls	-	-
Other	0.8%	2.0	-	-
		No Controls	-	-
Total Control Measure Reductions			121.5	100.%
Design Day with Control Measure Benefits		143.4	-	-

Summary of Benefits for Agriculture Fields Reduction on Modeled PM10 Concentrations at PCH on January 1, 2008 High Wind Design Day (264.9 µg/m³)

Rank	Control Measures	Control Efficiency	Modeled Concentration After Control (µg/m ³)	Total Concentrations After Control (µg/m ³)	Modeled Reduction (%)	Total Control Measure Reduction (µg/m ³)
Baseline Modeled Concentration						189.0
5	Artificial Wind Barrier	45.0%	104.5	180.4	45%	84.5
6	Cover crop	43.0%	108.2	184.1	43%	80.8
1	Cross-wind Ridges	57.0%	82.0	157.9	57%	107.0
2	Mulching	53.0%	89.5	165.4	53%	99.5
10	Residue Management	12.0%	166.4	242.3	12%	22.6
4.0	Surface roughing	45%	104.5	180.4	44.7%	84.5
8	Tree, Shrub, or windbreak Planting	25%	142.1	218.0	24.8%	46.9
10&5		12% &45%	92.2	168.1	51.2%	96.8
2&8		53% &25%	67.5	143.4	64.3%	121.5
4&5		45% &45%	58.1	134.0	69.3%	130.9