

## December 11, 2007 update

### Projected Visibility Improvement for Colorado Plateau Class I areas under §309(d)(2)

The table below compares the monitored 2000-04 baseline visibility conditions in deciviews for the 20% Best and 20% Worst days to the projected visibility improvement resulting from the 2018 Base Case (Base 18b) and 2018 Preliminary Reasonable Progress (PRP18) modeling scenarios completed to date.

These 2018 modeling scenarios are defined as follows:

- Base Case (base18b) = growth plus all controls “on the books” as of December 2004, No BART or SO2 milestones assumptions
- Preliminary Reasonable Progress Case (PRP18) = refined growth estimates plus all controls “on the books” as of May 2007, includes presumptive limit or known SO2 BART on EGUs; and
- *[future]* Final Reasonable Progress Case (FRP18) = all controls “on the books” as of 2007, will include all BART controls in the WRAP region and limits defined in the SO2 milestone “better-than-BART” program.

When SO2 and NOx controls for all BART sources have been adopted in the WRAP region, and the §309 states re-adopt the SO2 milestone program, a 2018 Final Reasonable Progress (FRP18) modeling scenario will then be analyzed and the remaining cells completed in the table below. The data in the table below satisfy §309(d)(2) of the RHR.

All 16 Colorado Plateau Class I areas show a projected visibility improvement for 2018 using the monthly averages on the 20% Worst average visibility days, and no degradation on the 20% Best average visibility days for each monitoring site. The monthly average method for projecting visibility improvement is an allowed variation of EPA guidance, and the method description is found at:

[http://www.wrapair.org/forums/taf/meetings/070226c/Applying\\_Monitoring\\_Metrics\\_for\\_Regional\\_Haze\\_Planning\\_%20February\\_23\\_2007\\_finalreviewdraft.pdf](http://www.wrapair.org/forums/taf/meetings/070226c/Applying_Monitoring_Metrics_for_Regional_Haze_Planning_%20February_23_2007_finalreviewdraft.pdf). The monthly averaging method was chosen because it was the shortest averaging period for making the future visibility projections, while avoiding the use of the EPA specific days method that only assesses improvements on the Worst and Best days observed during one year (2002) of the 2000-04 baseline monitoring period.

		Visibility Impairment in Deciviews*							
		20% Worst Visibility Days				20% Best Visibility Days			
		<u>2000-04 Regional Haze Rule Baseline Monitoring Data</u>	<u>Projected Visibility (Monthly Average Method)</u>			<u>2000-04 Regional Haze Rule Baseline Monitoring Data</u>	<u>Projected Visibility (Monthly Average Method)</u>		
<u>2018 Base Case (Base18b)</u>	<u>2018 Preliminary Reasonable Progress Case (PRP18)</u>		<u>2018 Final Reasonable Progress Case (FRP18)</u>	<u>2018 Base Case (Base18b)</u>	<u>2018 Preliminary Reasonable Progress Case (PRP18)</u>		<u>2018 Final Reasonable Progress Case (FRP18)</u>		
<b>Colorado Plateau Class I areas under §309(d)(2)</b>	<b>State</b>								
Grand Canyon National Park	AZ	11.7	11.4	11.3		2.2	2.2	2.1	
Mount Baldy Wilderness	AZ	11.9	11.5	11.4		3.0	2.9	2.8	
Petrified Forest National Park	AZ	13.2	12.9	12.9		5.0	4.9	4.8	
Sycamore Canyon Wilderness	AZ	15.3	15.1	15.1		5.6	5.6	5.6	
Black Canyon of the Gunnison National Park Wilderness	CO	10.3	10.1	9.9		3.1	2.9	2.9	
Flat Tops Wilderness	CO	9.6	9.2	9.0		0.7	0.6	0.5	
Maroon Bells Wilderness	CO	9.6	9.2	9.0		0.7	0.6	0.5	
Mesa Verde National Park	CO	13.0	12.8	12.6		4.3	4.1	4.0	
Weminuche Wilderness	CO	10.3	10.1	9.9		3.1	2.9	2.9	
West Elk Wilderness	CO	9.6	9.2	9.0		0.7	0.6	0.5	
San Pedro Parks Wilderness	NM	10.2	10.0	9.8		1.5	1.3	1.2	
Arches National Park	UT	11.2	11.0	10.9		3.8	3.6	3.5	
Bryce Canyon National Park	UT	11.6	11.3	11.2		2.8	2.7	2.6	
Canyonlands National Park	UT	11.2	11.0	10.9		3.8	3.6	3.5	
Capitol Reef National Park	UT	10.9	10.6	10.5		4.1	4.0	3.9	
Zion National Park	UT	13.2	13.0	13.0		5.0	4.7	4.7	

\* Data are from: <http://vista.cira.colostate.edu/TSS/Results/HazePlanning.aspx> --> Modeling --> Visibility Projections