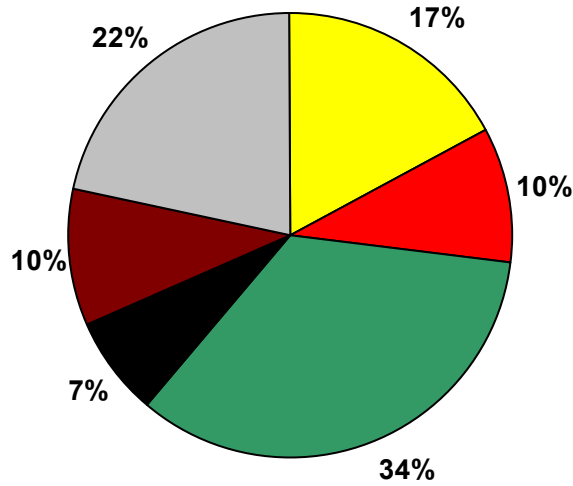


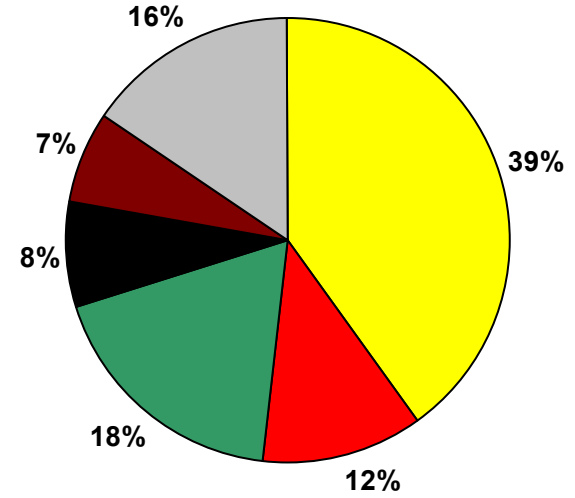
# MONITORING DATA

## Arches National Park, UT 2002 Reconstructed Extinction CANY1 Monitoring Data (every third day)

**20% Worst Visibility Days**  
Aerosol Extinction\* = 27 Mm<sup>-1</sup> (19 to 56 Mm<sup>-1</sup>)

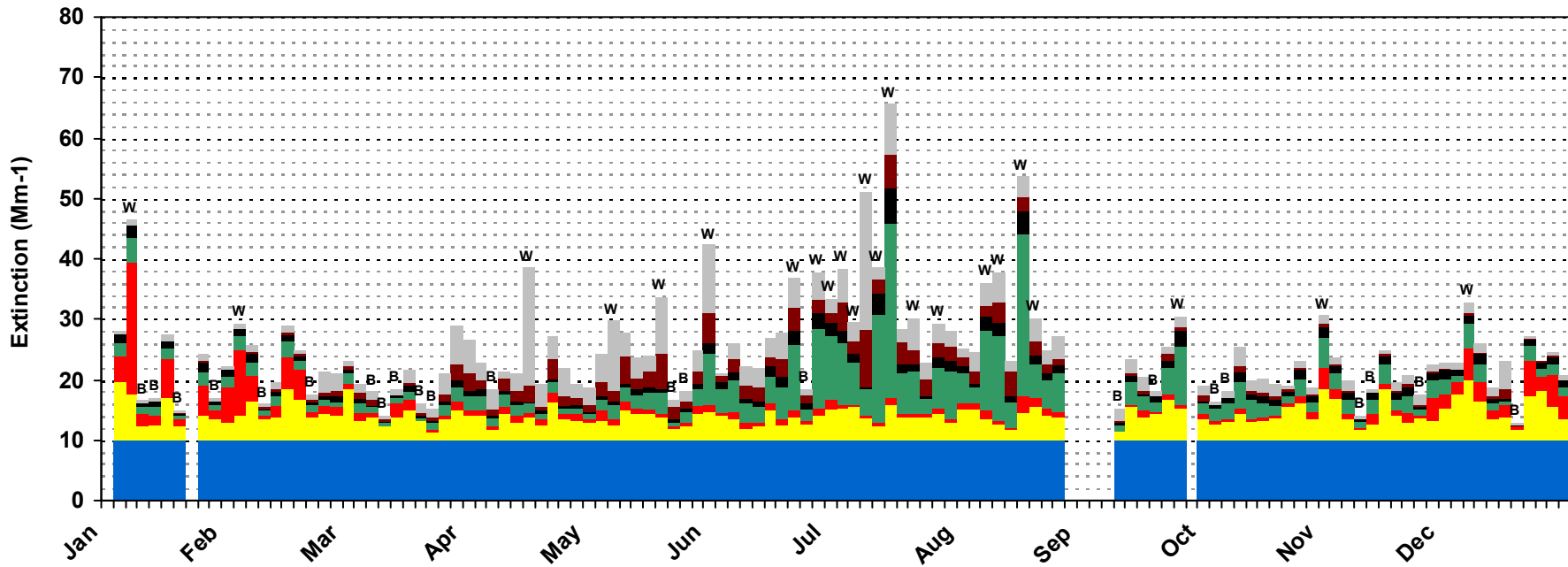


**20% Best Visibility Days**  
Aerosol Extinction\* = 7 Mm<sup>-1</sup> (3 to 8 Mm<sup>-1</sup>)



- Coarse Material
- Soil
- Elemental Carbon
- Organic Material
- Ammonium Nitrate
- Ammonium Sulfate
- Rayleigh

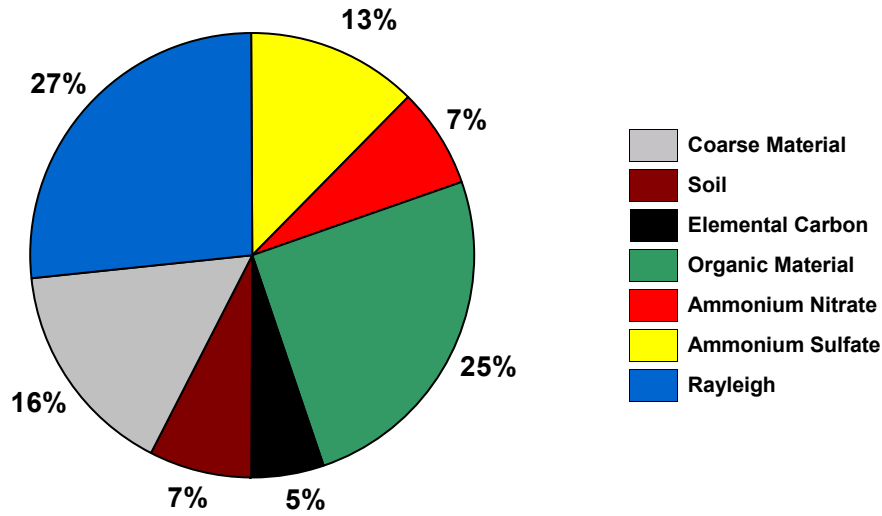
\*Excludes Rayleigh Extinction



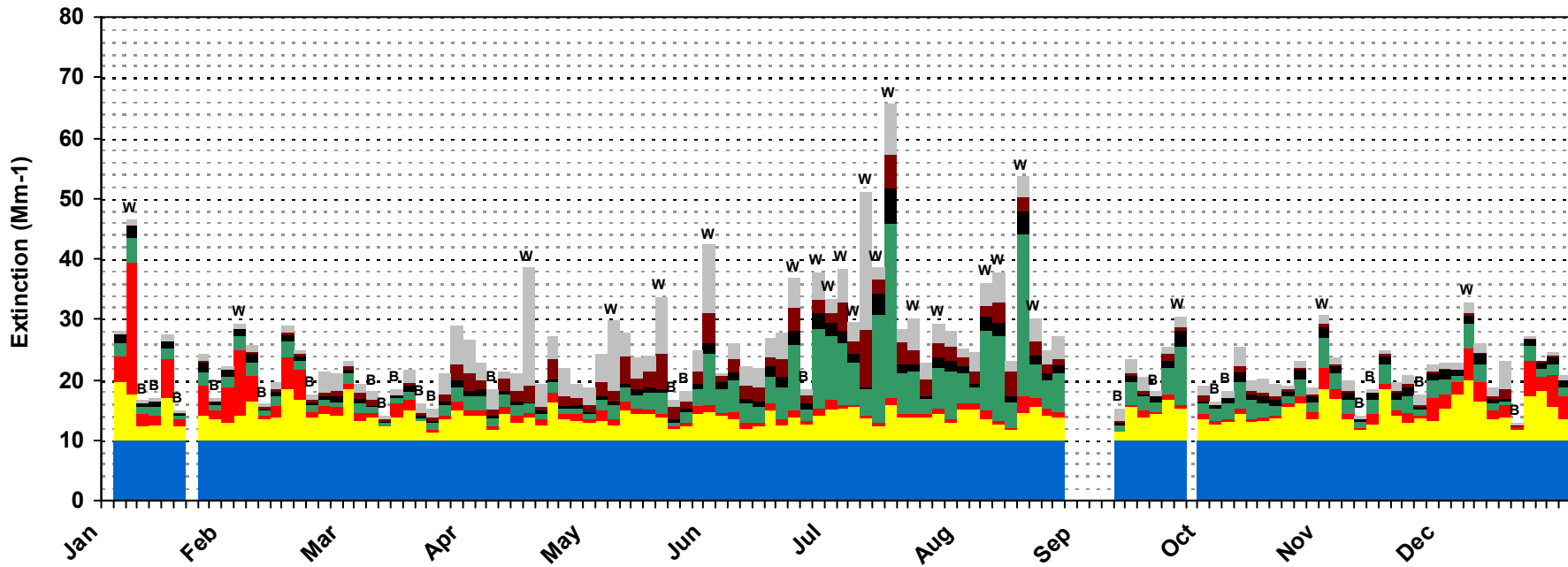
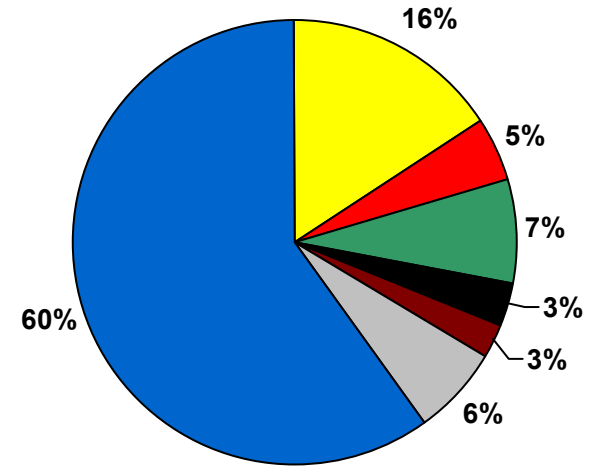
**MONITORING DATA**

**Arches National Park, UT  
2002 Reconstructed Extinction  
CANY1 Monitoring Data (every third day)**

**20% Worst Visibility Days**  
Total Extinction = 37 Mm-1 (29 to 66 Mm-1)



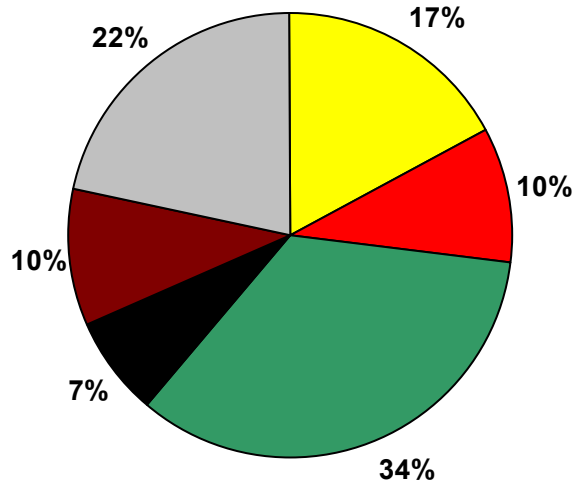
**20% Best Visibility Days**  
Total Extinction = 17 Mm-1 (13 to 18 Mm-1)



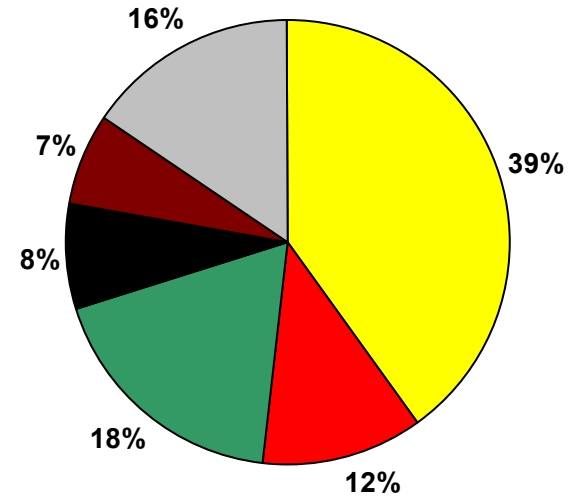
# MONITORING DATA

## Arches National Park, UT 2002 Reconstructed Extinction CANY1 Monitoring Data (every third day)

**20% Worst Visibility Days**  
Aerosol Extinction\* = 27 Mm-1 (19 to 56 Mm-1)

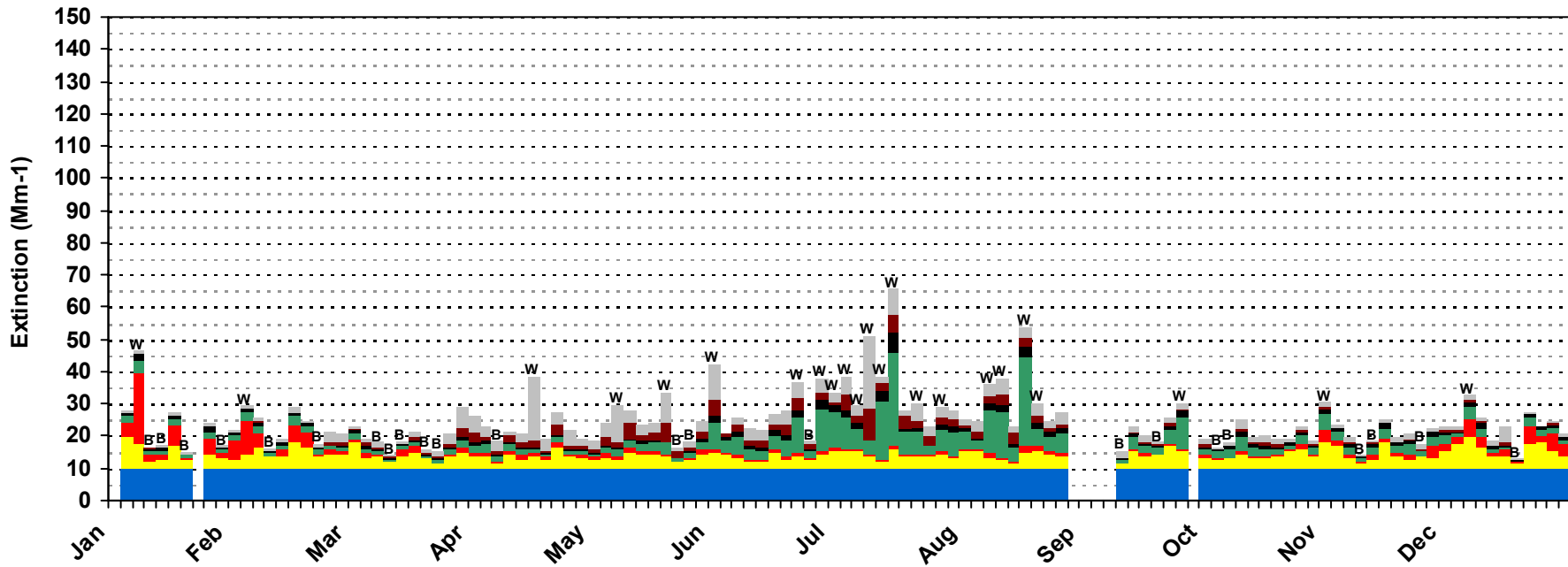


**20% Best Visibility Days**  
Aerosol Extinction\* = 7 Mm-1 (3 to 8 Mm-1)



- Coarse Material
- Soil
- Elemental Carbon
- Organic Material
- Ammonium Nitrate
- Ammonium Sulfate
- Rayleigh

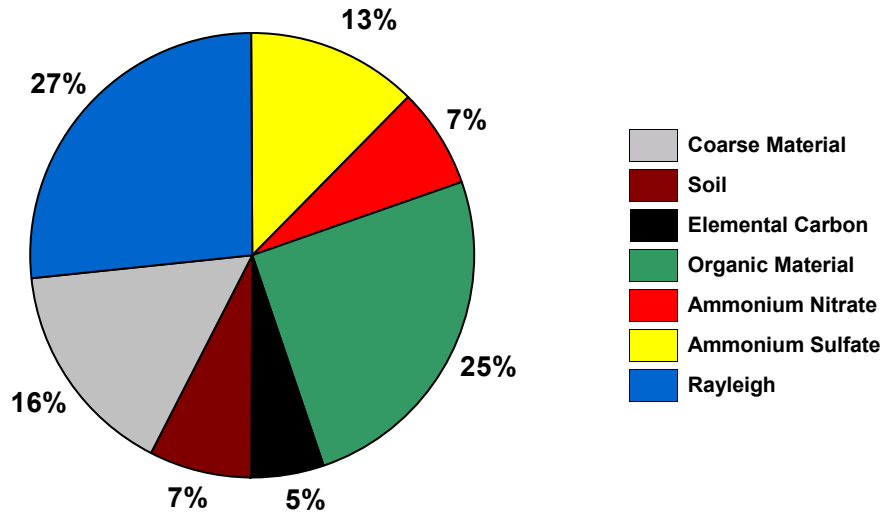
\*Excludes Rayleigh Extinction



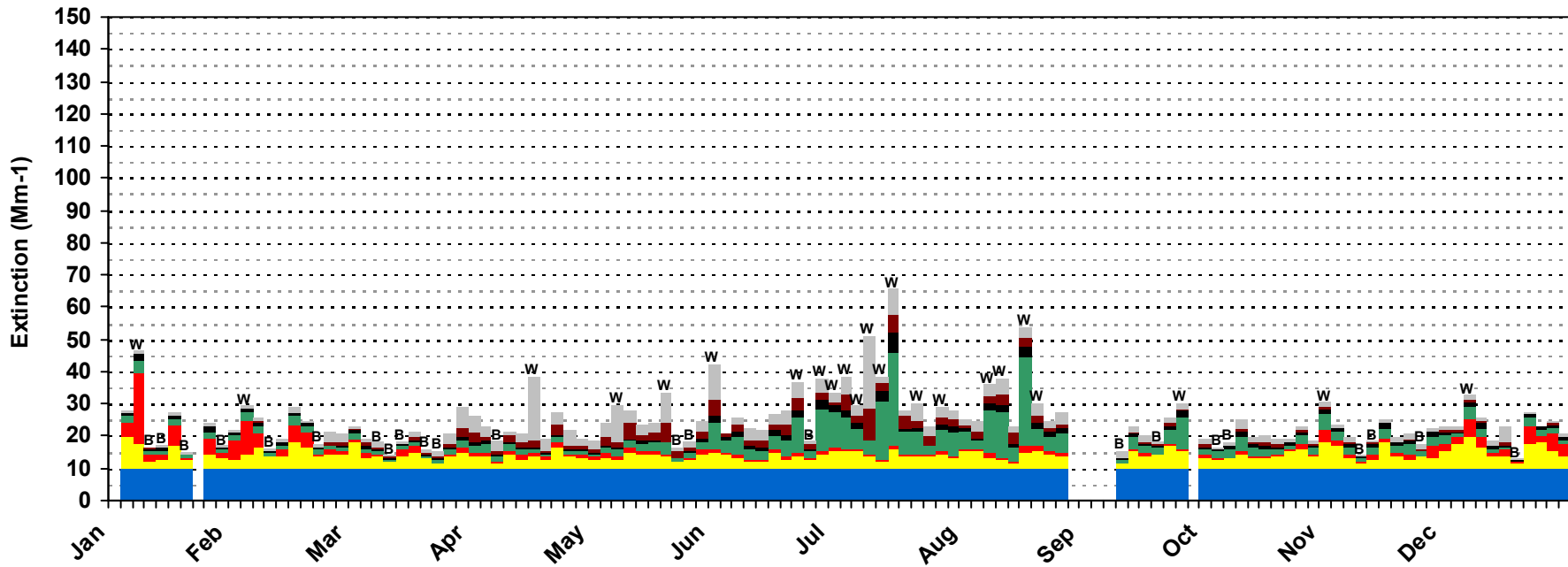
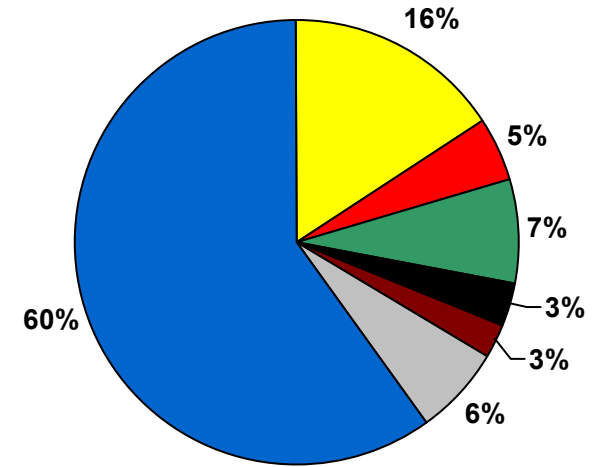
# MONITORING DATA

## Arches National Park, UT 2002 Reconstructed Extinction CANY1 Monitoring Data (every third day)

**20% Worst Visibility Days**  
Total Extinction = 37 Mm-1 (29 to 66 Mm-1)



**20% Best Visibility Days**  
Total Extinction = 17 Mm-1 (13 to 18 Mm-1)



## MONITORING DATA

### Arches National Park, UT 2002 Reconstructed Extinction Values CANY1 Monitoring Data (every third day)

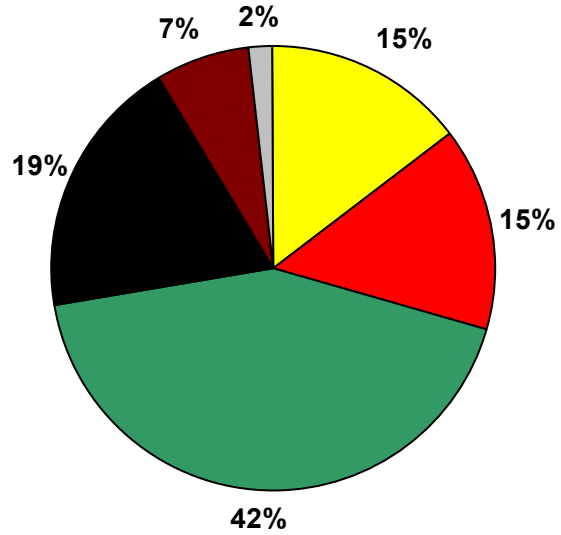
20% Worst Visibility Days			
	Average (Mm-1)	Minimum (Mm-1)	Maximum (Mm-1)
<b>Total Extinction:</b>	37.4 (13.2 dv)	29.1 (10.7 dv)	65.6 (18.8 dv)
<b>Aerosol Extinction*:</b>	27.4	19.1	55.6
	Average (Mm-1)	% of Tot. Extinction	% of Aer. Extinction
<b>Ammonium Sulfate:</b>	4.7	13%	17%
<b>Ammonium Nitrate:</b>	2.6	7%	10%
<b>Organic Material:</b>	9.4	25%	34%
<b>Elemental Carbon:</b>	2.0	5%	7%
<b>Soil:</b>	2.7	7%	10%
<b>Coarse Material:</b>	5.9	16%	22%
<b>Rayleigh:</b>	10.0	27%	N/A
20% Best Visibility Days			
	Average (Mm-1)	Minimum (Mm-1)	Maximum (Mm-1)
<b>Total Extinction:</b>	16.6 (5.1 dv)	12.9 (2.6 dv)	18.5 (6.1 dv)
<b>Aerosol Extinction*:</b>	6.6	2.9	8.5
	Average (Mm-1)	% of Tot. Extinction	% of Aer. Extinction
<b>Ammonium Sulfate:</b>	2.6	16%	40%
<b>Ammonium Nitrate:</b>	0.8	5%	12%
<b>Organic Material:</b>	1.2	7%	18%
<b>Elemental Carbon:</b>	0.5	3%	8%
<b>Soil:</b>	0.4	3%	7%
<b>Coarse Material:</b>	1.0	6%	15%
<b>Rayleigh:</b>	10.0	60%	N/A

\*Excludes Rayleigh Extinction

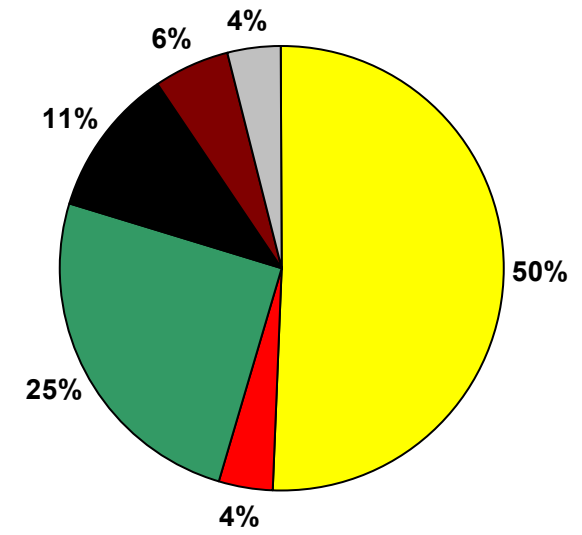
**MODEL RESULTS**

**Arches National Park, UT  
2002 Reconstructed Extinction  
CMAQ Model Results (every day)**

**20% Worst Visibility Days**  
Aerosol Extinction\* = 53 Mm<sup>-1</sup> (19 to 487 Mm<sup>-1</sup>)

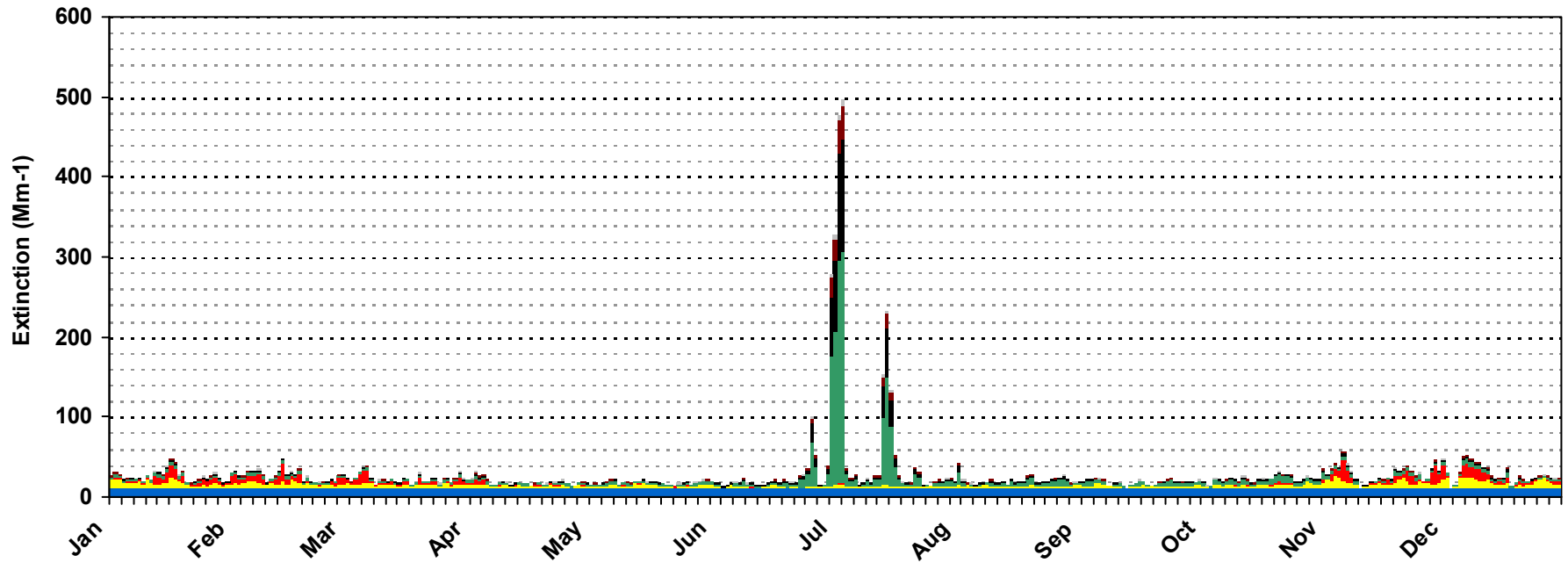


**20% Best Visibility Days**  
Aerosol Extinction\* = 6 Mm<sup>-1</sup> (2 to 8 Mm<sup>-1</sup>)



- Coarse Material
- Soil
- Elemental Carbon
- Organic Material
- Ammonium Nitrate
- Ammonium Sulfate
- Rayleigh

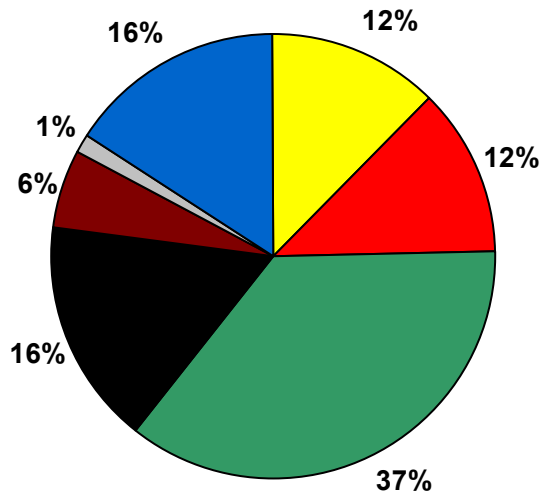
\*Excludes Rayleigh Extinction



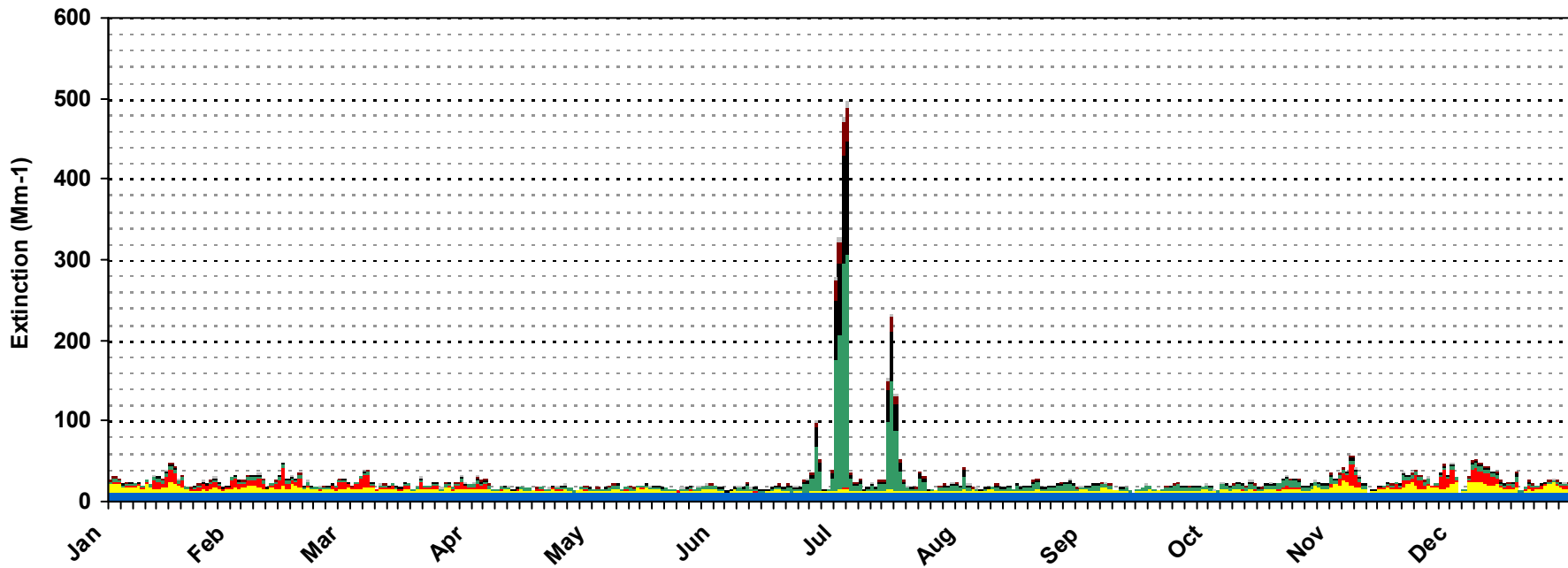
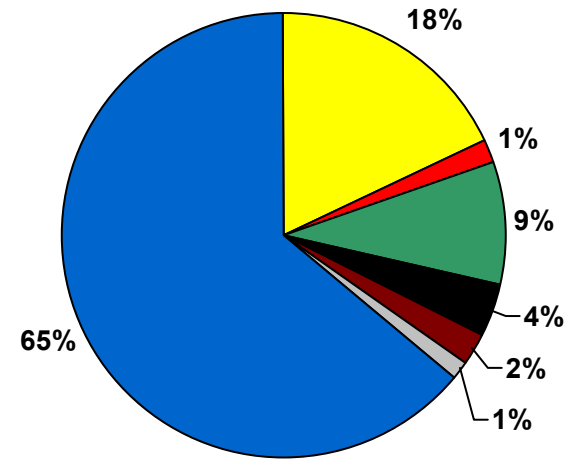
**MODEL RESULTS**

**Arches National Park, UT  
2002 Reconstructed Extinction  
CMAQ Model Results (every day)**

**20% Worst Visibility Days**  
Total Extinction = 63 Mm-1 (29 to 497 Mm-1)



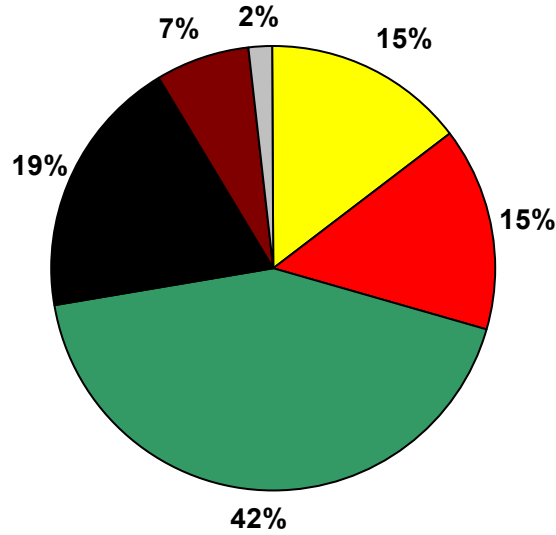
**20% Best Visibility Days**  
Total Extinction = 16 Mm-1 (12 to 18 Mm-1)



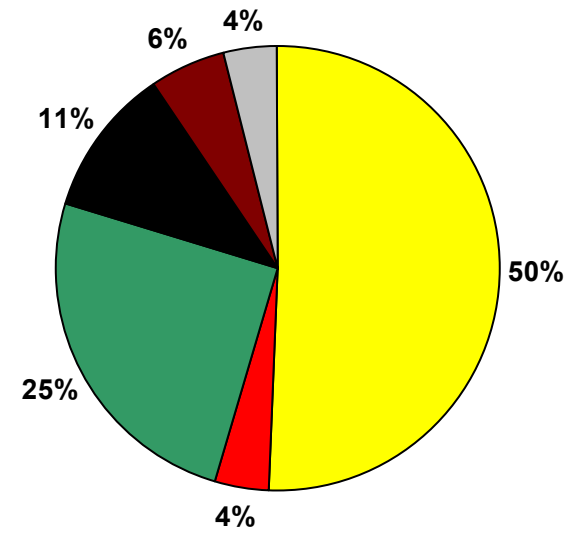
# MODEL RESULTS

## Arches National Park, UT 2002 Reconstructed Extinction CMAQ Model Results (every day)

**20% Worst Visibility Days**  
Aerosol Extinction\* = 53 Mm<sup>-1</sup> (19 to 487 Mm<sup>-1</sup>)

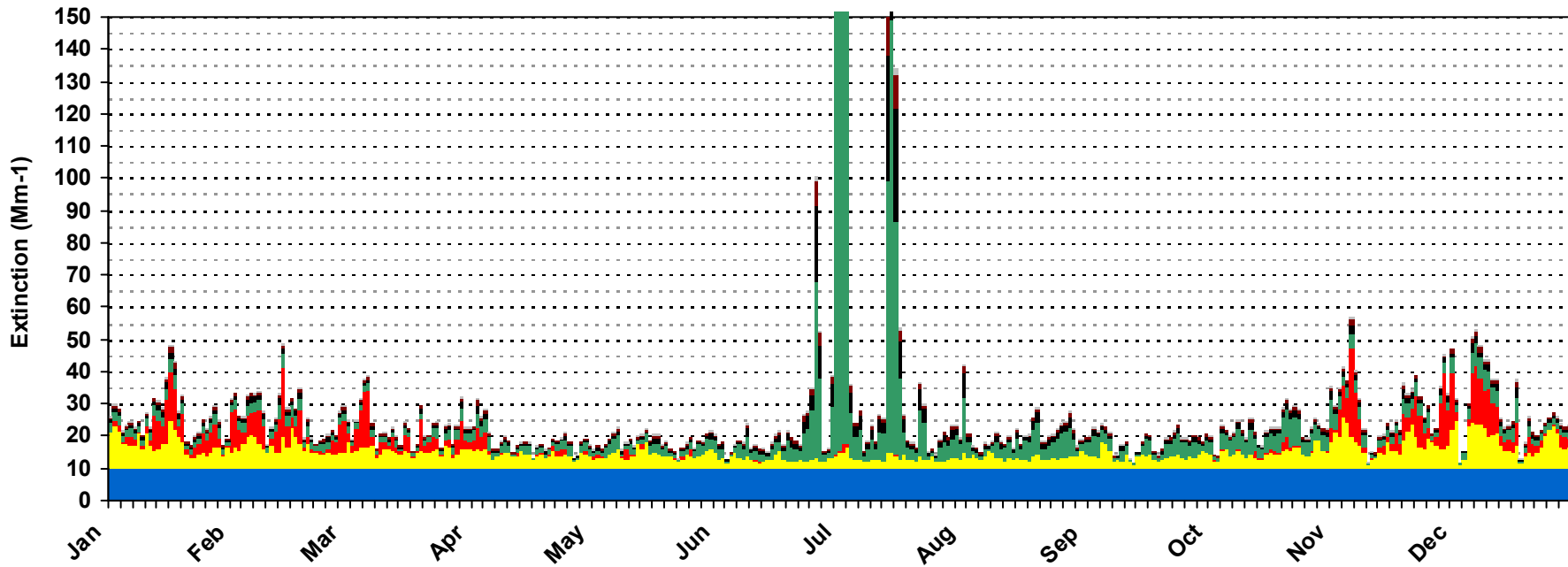


**20% Best Visibility Days**  
Aerosol Extinction\* = 6 Mm<sup>-1</sup> (2 to 8 Mm<sup>-1</sup>)



- Coarse Material
- Soil
- Elemental Carbon
- Organic Material
- Ammonium Nitrate
- Ammonium Sulfate
- Rayleigh

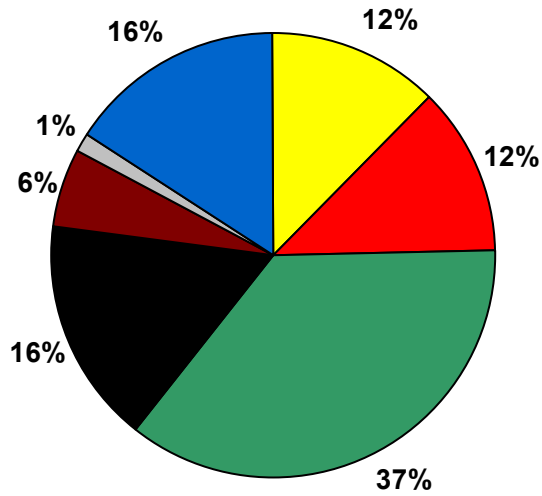
\*Excludes Rayleigh Extinction



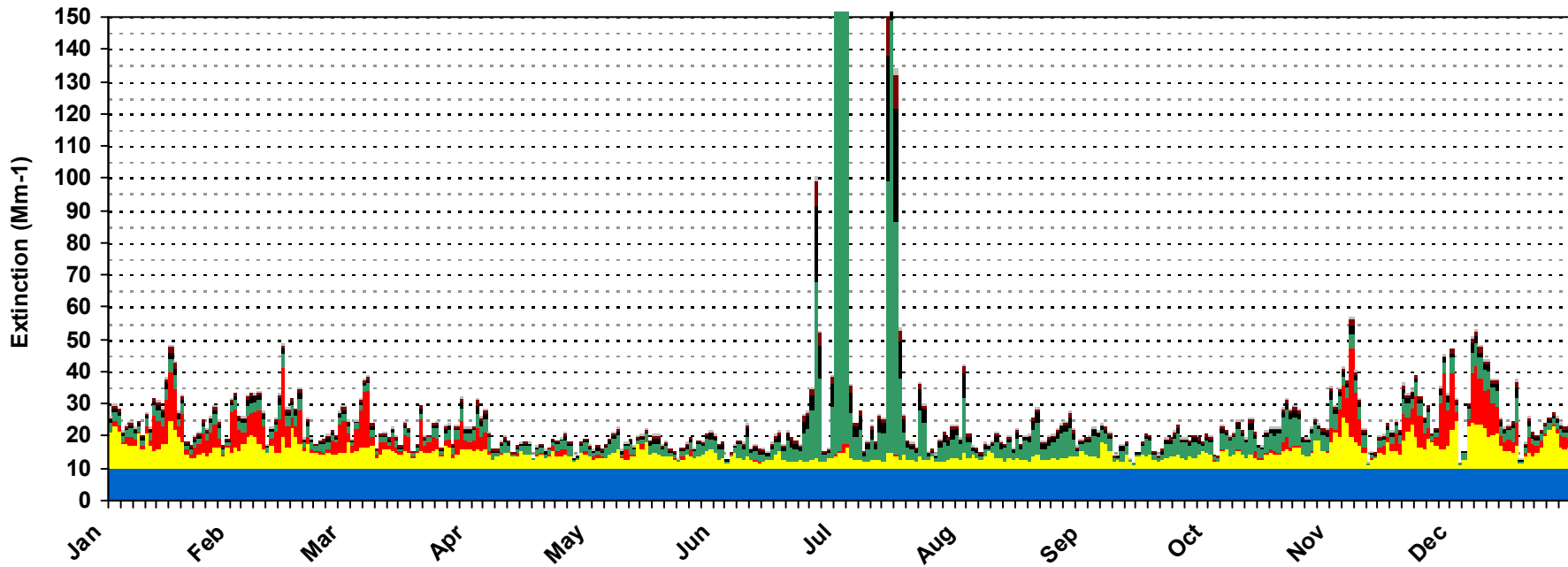
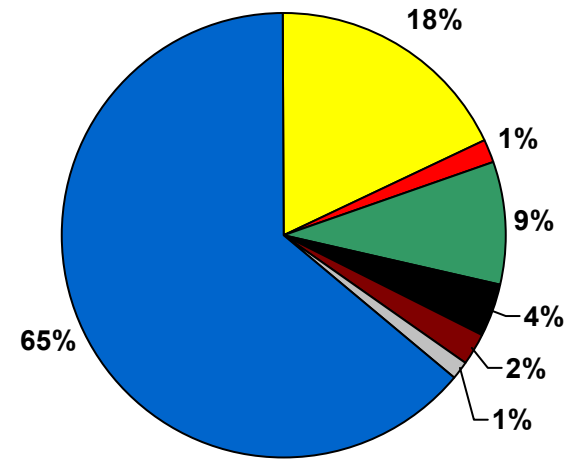
**MODEL RESULTS**

**Arches National Park, UT  
2002 Reconstructed Extinction  
CMAQ Model Results (every day)**

**20% Worst Visibility Days**  
Total Extinction = 63 Mm-1 (29 to 497 Mm-1)



**20% Best Visibility Days**  
Total Extinction = 16 Mm-1 (12 to 18 Mm-1)



## MODEL RESULTS

### Arches National Park, UT 2002 Reconstructed Extinction CMAQ Model Results (every day)

<b>20% Worst Visibility Days</b>			
	<b>Average (Mm-1)</b>	<b>Minimum (Mm-1)</b>	<b>Maximum (Mm-1)</b>
<b>Total Extinction:</b>	63.0 (18.4 dv)	28.9 (10.6 dv)	496.8 (39.1 dv)
<b>Aerosol Extinction*:</b>	53.0	18.9	486.8
	<b>Average (Mm-1)</b>	<b>% of Tot. Extinction</b>	<b>% of Aer. Extinction</b>
<b>Ammonium Sulfate:</b>	7.9	12%	15%
<b>Ammonium Nitrate:</b>	7.8	12%	15%
<b>Organic Material:</b>	22.6	36%	43%
<b>Elemental Carbon:</b>	10.3	16%	19%
<b>Soil:</b>	3.6	6%	7%
<b>Coarse Material:</b>	0.9	1%	2%
<b>Rayleigh:</b>	10.0	16%	N/A
<b>20% Best Visibility Days</b>			
	<b>Average (Mm-1)</b>	<b>Minimum (Mm-1)</b>	<b>Maximum (Mm-1)</b>
<b>Total Extinction:</b>	15.6 (4.5 dv)	11.7 (1.6 dv)	17.6 (5.6 dv)
<b>Aerosol Extinction*:</b>	5.6	1.7	7.6
	<b>Average (Mm-1)</b>	<b>% of Tot. Extinction</b>	<b>% of Aer. Extinction</b>
<b>Ammonium Sulfate:</b>	2.8	18%	50%
<b>Ammonium Nitrate:</b>	0.2	1%	4%
<b>Organic Material:</b>	1.4	9%	25%
<b>Elemental Carbon:</b>	0.6	4%	11%
<b>Soil:</b>	0.3	2%	6%
<b>Coarse Material:</b>	0.2	1%	4%
<b>Rayleigh:</b>	10.0	64%	N/A

\*Excludes Rayleigh Extinction