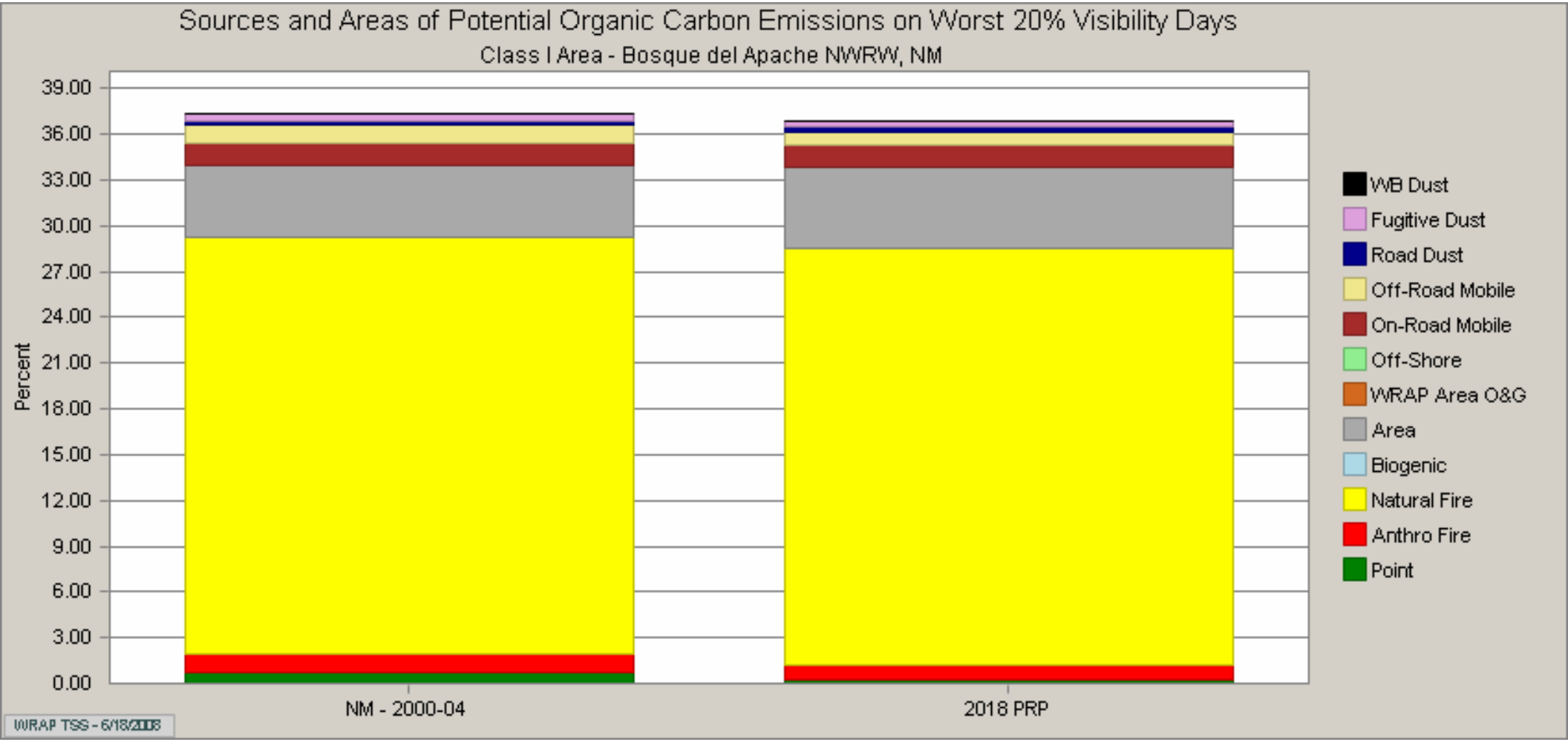
Bosque del Apache NWR [BOAP]
Organic Carbon (OC)

The largest potential contributor to visibility impairment by OC at BOAP in 2000-04 and 2018 is from natural fire, followed by area sources (see bar graph). Looking at the map of Normalized Weighted Emissions Potential (WEP) for BOAP, the nearest WEP% values to Bernalillo County are 10-30% for 2000-04 and >50% for 2018.

Bernalillo's OC emissions from natural fire in 2002 were 14.947 TPY, which is 0.09% of New Mexico's 16,271.936 TPY, and the predicted emissions in 2018 remain constant at 2002 values. Bernalillo County's OC emissions from Area sources in 2002 were 506.5 TPY which is 20% of New Mexico's 2529.24 TPY, and the predicted emissions in 2018 are 569.04 TPY which is 20% of New Mexico's 2847.89 TPY.

The 2002 emissions inventory indicates that Bernalillo County's contribution to natural fire emissions is minimal (0.09%), but Bernalillo County does contribute to New Mexico's OC emissions form Area sources (20%). Bernalillo County is in proximity to high WEP% values, so it is possible that Bernalillo County's OC emissions contribute significantly to the visibility impairment at BOAP.

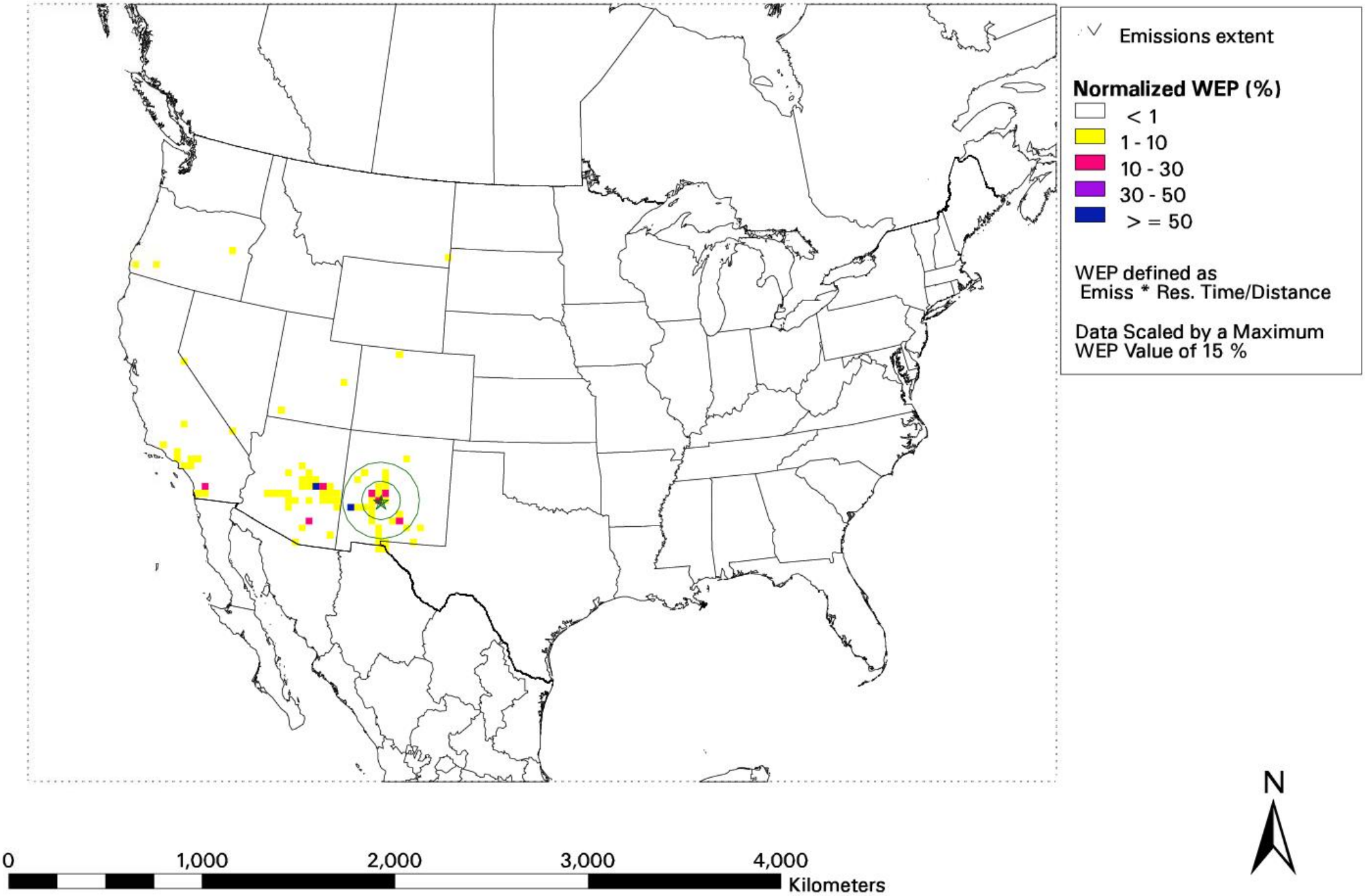

Sources and Areas of Potential Organic Carbon Emissions on Worst 20% Visibility Days
Class I Area - Bosque del Apache NWRW, NM
Percent
39.00
36.00
33.00
30.00
27.00
24.00
21.00
18.00
15.00
12.00
9.00
6.00
3.00
0.00
NM - 2000-04
2018 PRP
WB Dust
Fugitive Dust
Road Dust
Off-Road Mobile
On-Road Mobile
Off-Shore
WRAP Area O&G
Area
Biogenic
Natural Fire
Anthro Fire
Point
WRAP TSS - 6/18/2008

Bosque del Apache, NM

Normalized Weighted Emission Potential (WEP) for Organic Carbon (POA)

2000-04 Baseline

20% Worst Visibility Days

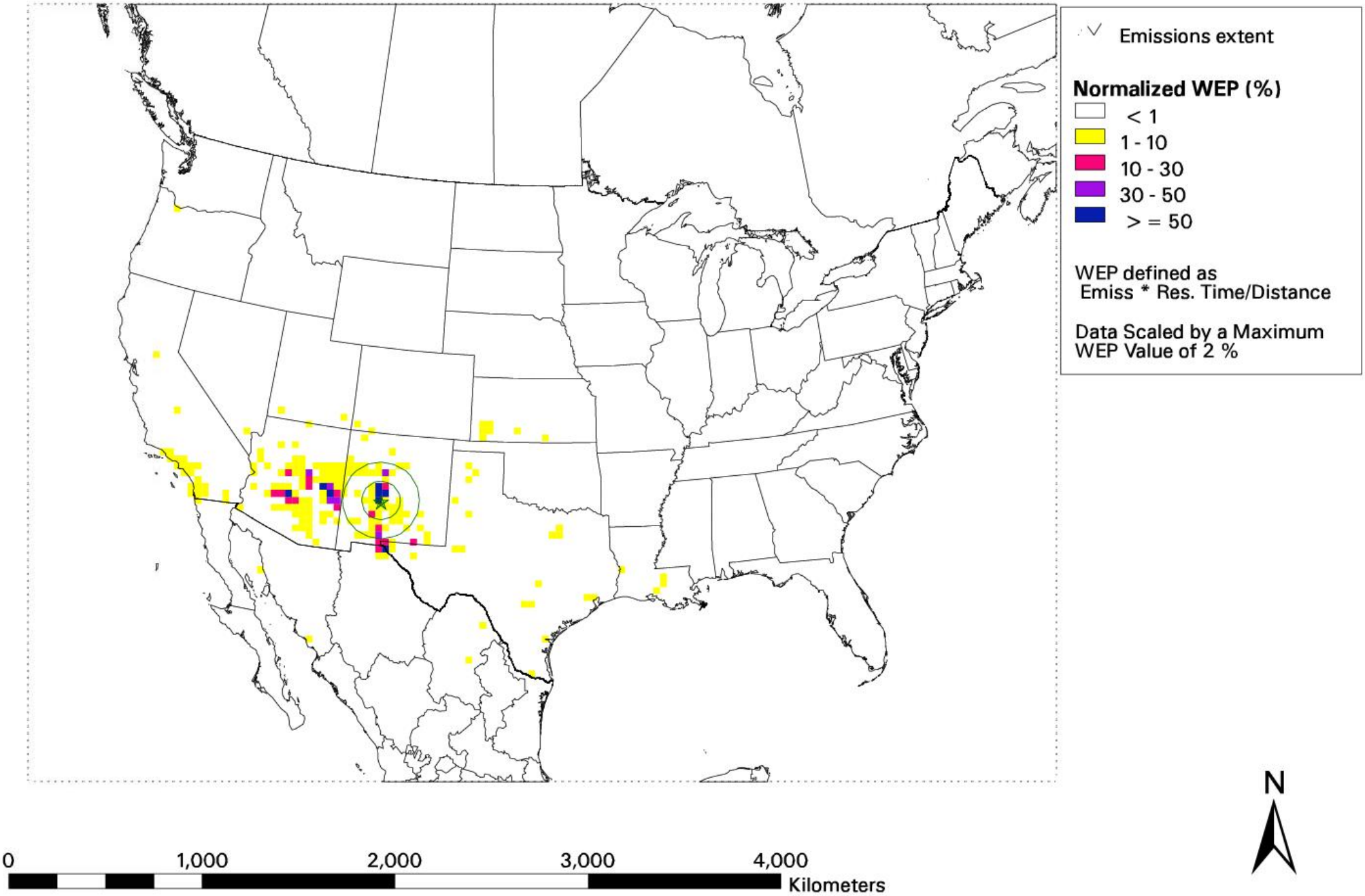


Bosque del Apache, NM

Normalized Weighted Emission Potential (WEP) for Organic Carbon (POA)

2018 Preliminary Reasonable Progress

20% Worst Visibility Days

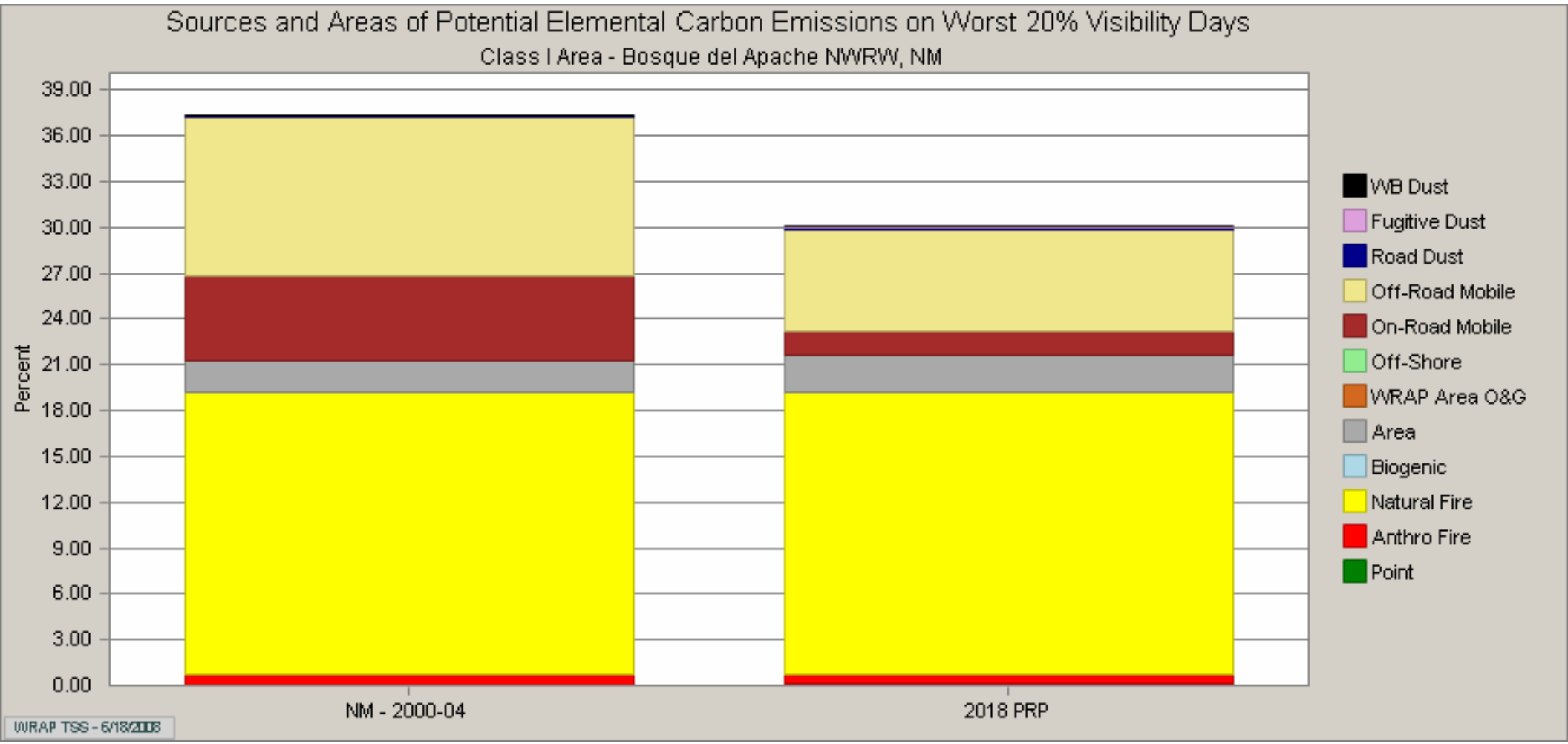


Bosque del Apache [BOAP]
Elemental Carbon (EC)

The largest potential contributor to visibility impairment at BOAP from EC in 2000-04 and 2018 is natural fire, followed by Off-Road Mobile and On-Road Mobile (see bar graph). Looking at the map of Normalized Weighted Emissions Potential (WEP) for BOAP, the nearest WEP% values to Bernalillo County are 10-30% for 2000-04 and for 2018.

Bernalillo's EC emissions from natural fire in 2002 were 2.307 TPY, which is 0.07% of New Mexico's 3293.129 TPY, and the predicted emissions for Bernalillo County in 2018 remain constant at 2002 values. Bernalillo's EC emissions from Off-Road Mobile were 171.0425 TPY in 2002, which is 11.2% of New Mexico's 1526.44 TPY, and the predicted emissions for Bernalillo County in 2018 are 81.73 TPY, which is 9.2% of New Mexico's 884.855 TPY. Bernalillo's EC emissions from On-Road Mobile in 2002 were 170.2 TPY, which is 22.5% of New Mexico's 756.1025 TPY, and the predicted emissions for Bernalillo County in 2018 are 44.395 TPY, which is 21.7% of New Mexico's 204.775 TPY.

The 2002 emissions inventory indicates that Bernalillo County's contribution to natural fire emissions is minimal (0.07%), but Bernalillo County does contribute to Off-Road Mobile (11.2%) and On-Road Mobile (22.5%). Also, Bernalillo is in proximity to moderate WEP% values, so it is possible that Bernalillo County's EC emissions contribute significantly to the visibility impairment at BOAP.

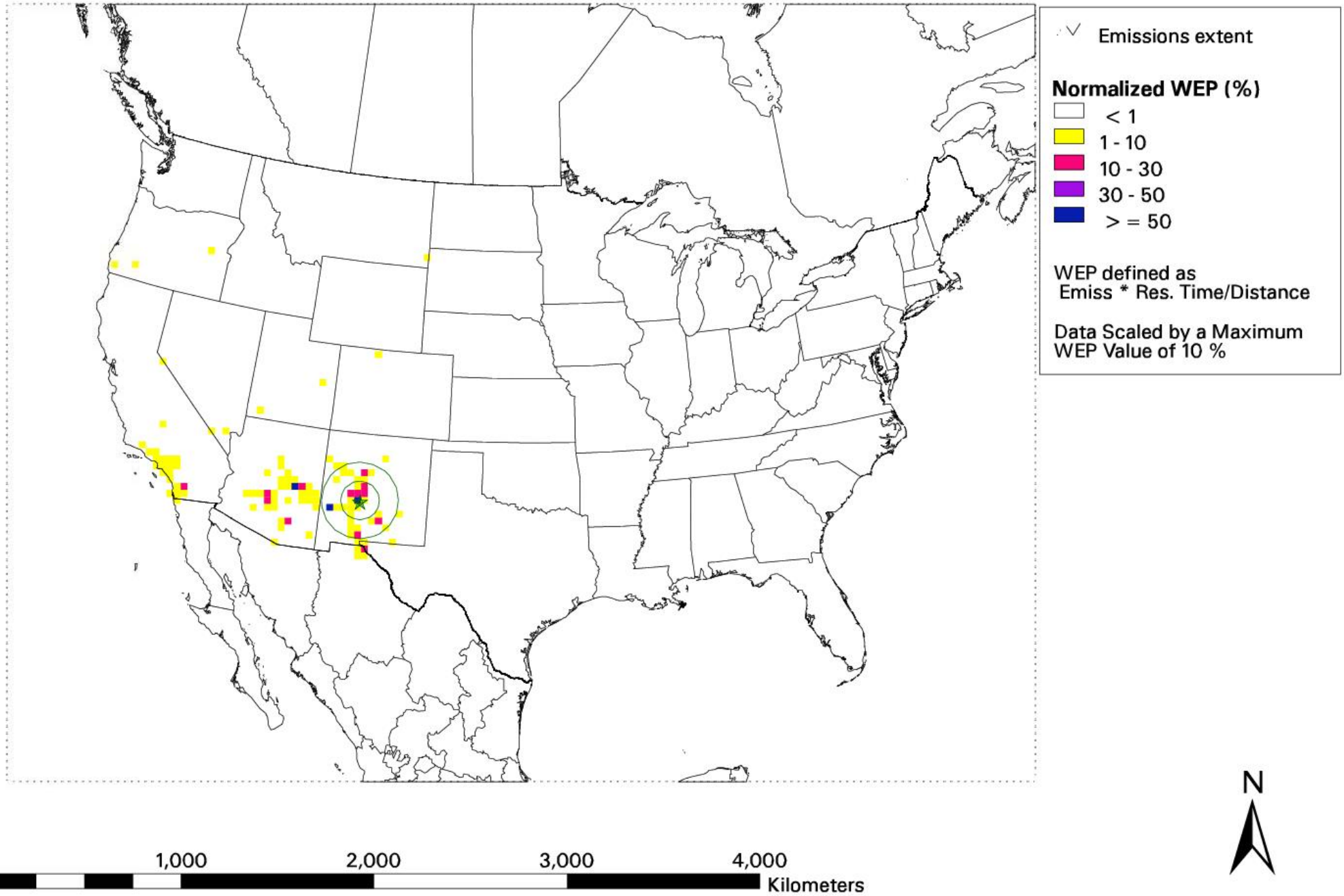

Sources and Areas of Potential Elemental Carbon Emissions on Worst 20% Visibility Days
Class I Area - Bosque del Apache NWRW, NM
Percent
39.00
36.00
33.00
30.00
27.00
24.00
21.00
18.00
15.00
12.00
9.00
6.00
3.00
0.00
NM - 2000-04
2018 PRP
WB Dust
Fugitive Dust
Road Dust
Off-Road Mobile
On-Road Mobile
Off-Shore
WRAP Area O&G
Area
Biogenic
Natural Fire
Anthro Fire
Point
WRAP TSS - 6/18/2008

Bosque del Apache, NM

Normalized Weighted Emission Potential (WEP) for Elemental Carbon (PEC)

2000-04 Baseline

20% Worst Visibility Days

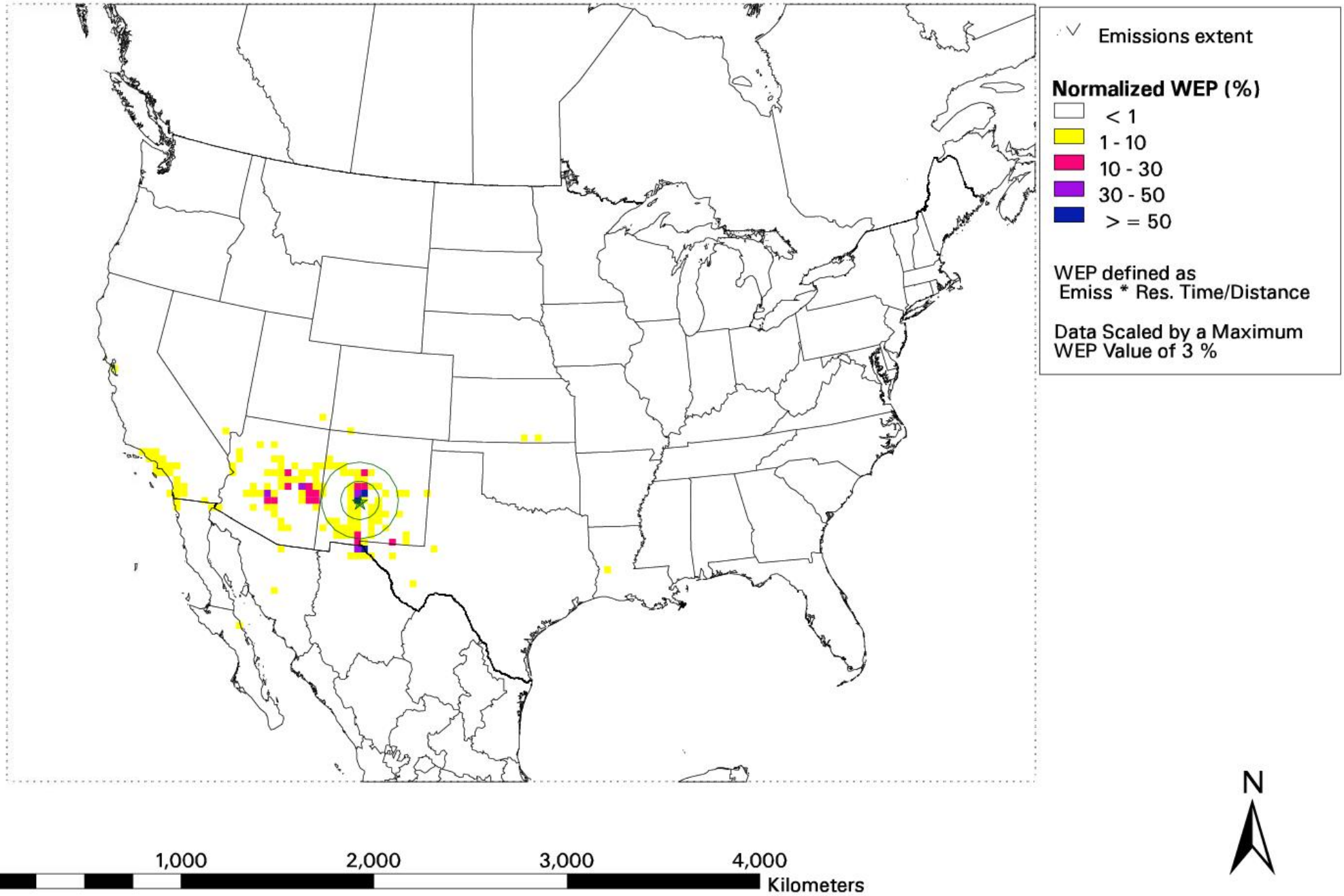


Bosque del Apache, NM

Normalized Weighted Emission Potential (WEP) for Elemental Carbon (PEC)

2018 Preliminary Reasonable Progress

20% Worst Visibility Days

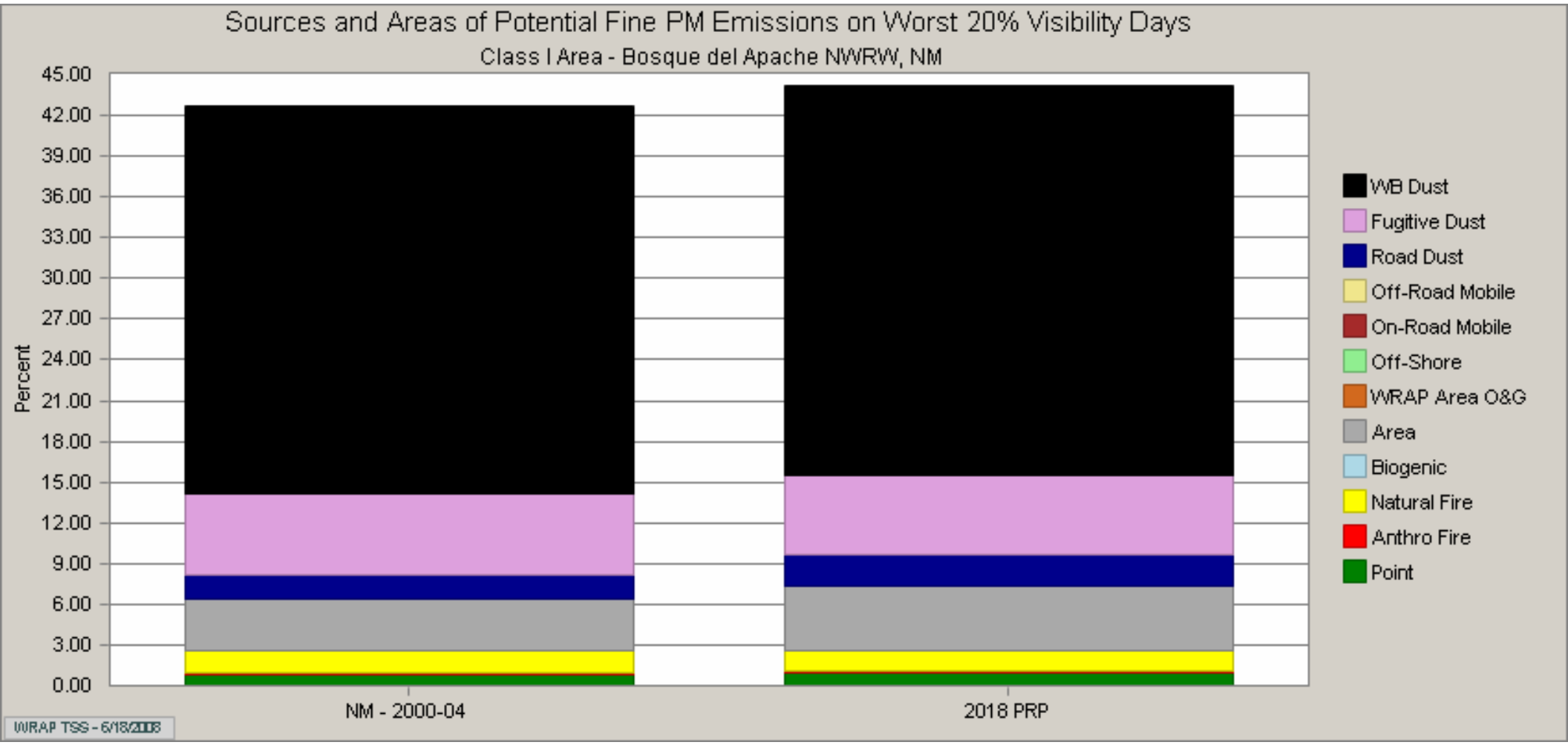


Bosque del Apache [BOAP]
Particulate Matter fine (PMf)

The largest potential contributor to visibility impairment in 2000-04 and 2018 from PMf is due to WB Dust, followed by Fugitive Dust and Area Sources (see bar graph). Looking at the map of Normalized Weighted Emissions Potential (WEP) for BOAP, the nearest WEP% values to Bernalillo County are >50% for both 2000-04 and 2018.

Bernalillo's WB Dust emissions in 2002 were 93.5505 TPY, which is 0.57% of New Mexico's 16,398.8 TPY, and the predicted emissions for Bernalillo County and New Mexico in 2018 remain constant at 2002 values. Bernalillo's PMf emissions from Fugitive Dust were 1593.21 TPY which is 23.6% of New Mexico's 6751.05 TPY, and the predicted emissions for Bernalillo County in 2018 are 1579.9 TPY which is 22.5% of New Mexico's 7025.69 TPY.

In 2002 Bernalillo County was the largest contributor of PMf in New Mexico. However, WB Dust was the largest fraction of PMf emissions impacting BOAP, while the largest fraction of PMf emissions in Bernalillo County was due to Fugitive Dust. This would indicate that Bernalillo County is less likely to contribute to the visibility impairment at BOAP from PMf, but this parsing of individual categories of dust may not preclude Bernalilllo's impact on BOAP. Therefore, it is possible that Bernalillo County's PMf emissions contribute to the visibility impairment at BOAP.

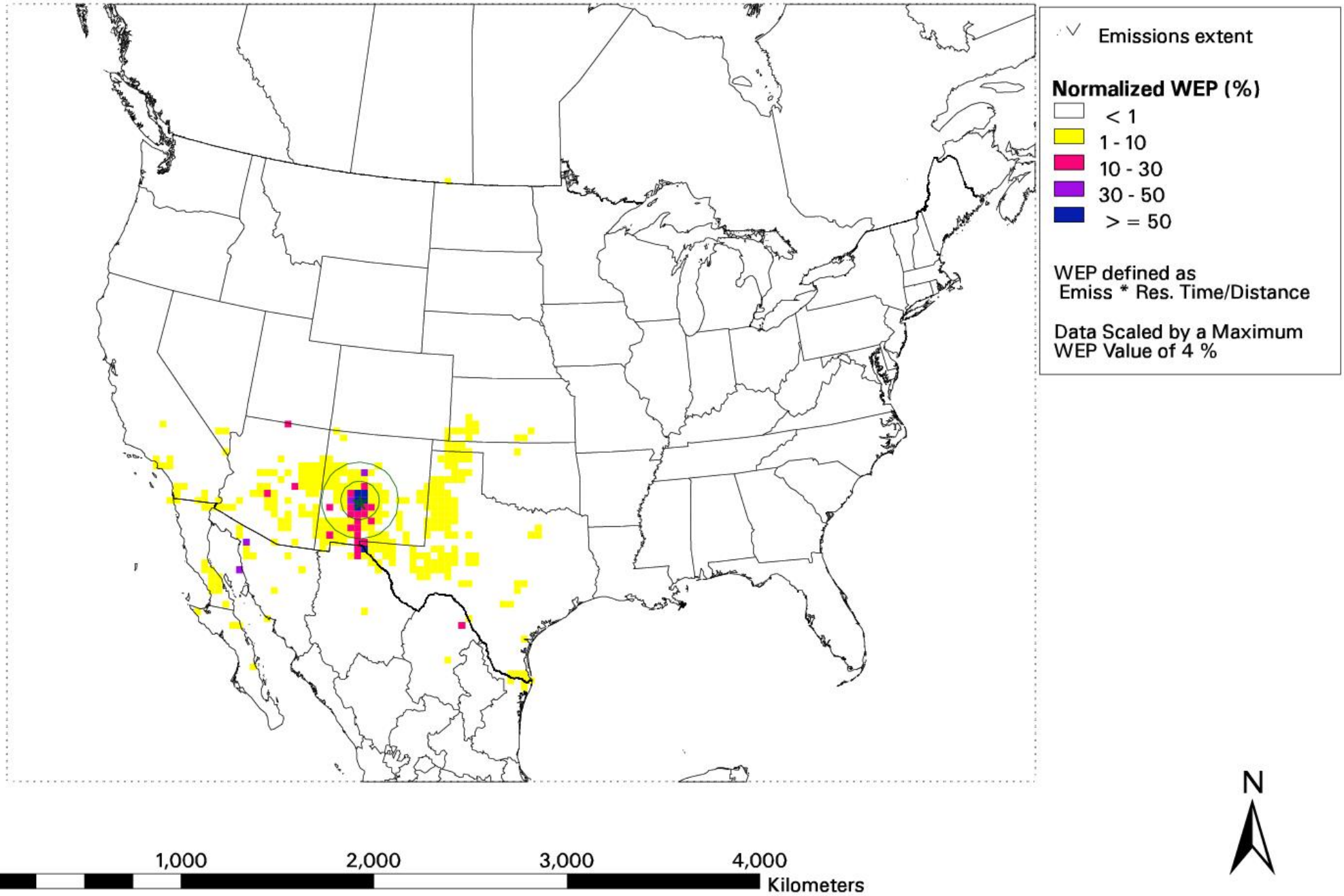

Sources and Areas of Potential Fine PM Emissions on Worst 20% Visibility Days
Class I Area - Bosque del Apache NWRW, NM
Percent
45.00
42.00
39.00
36.00
33.00
30.00
27.00
24.00
21.00
18.00
15.00
12.00
9.00
6.00
3.00
0.00
NM - 2000-04
2018 PRP
WB Dust
Fugitive Dust
Road Dust
Off-Road Mobile
On-Road Mobile
Off-Shore
WRAP Area O&G
Area
Biogenic
Natural Fire
Anthro Fire
Point
WRAP TSS - 6/18/2008

Bosque del Apache, NM

Normalized Weighted Emission Potential (WEP) for Fine Particulate Matter (PMFINE)

2000-04 Baseline

20% Worst Visibility Days

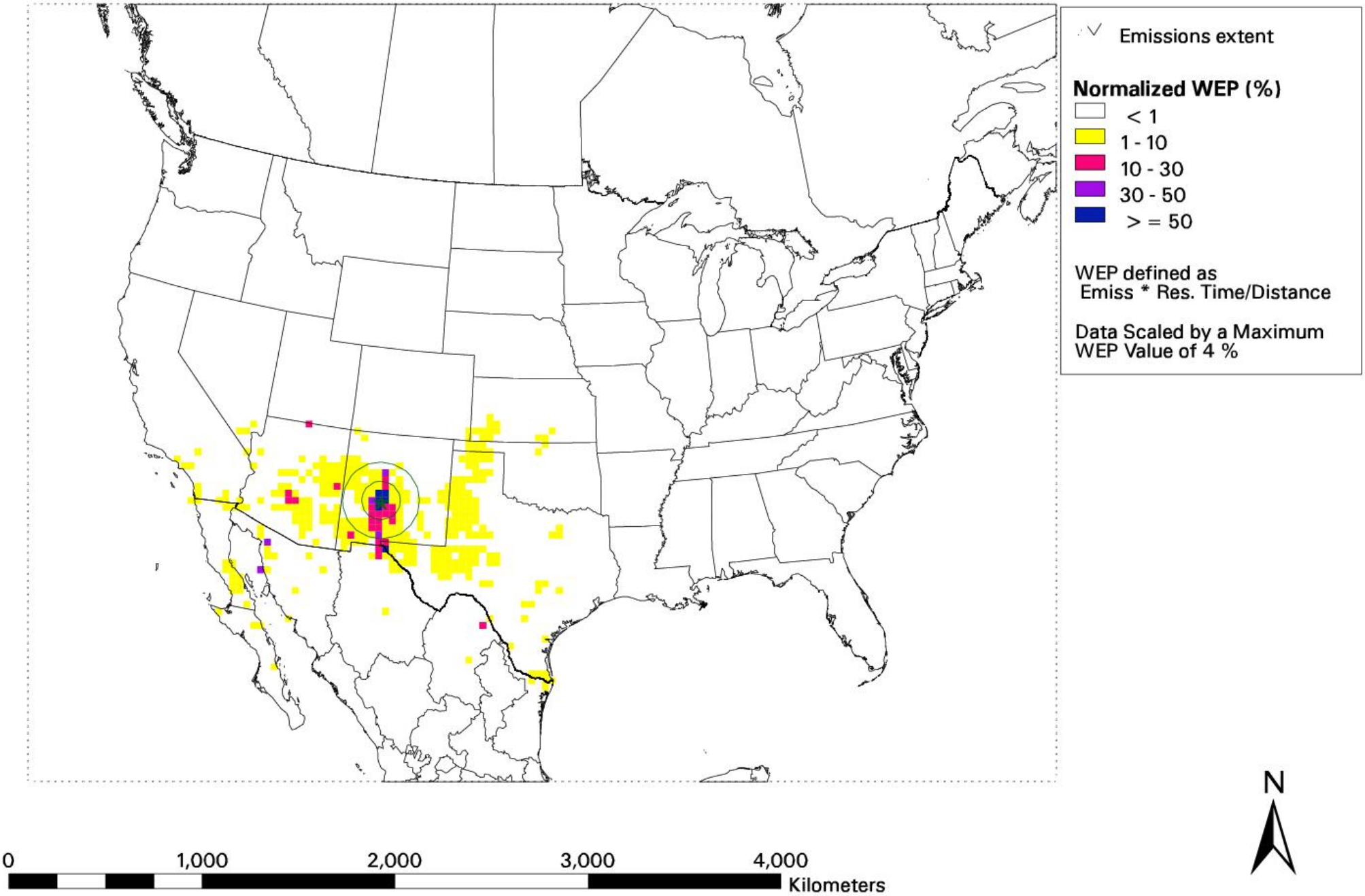


Bosque del Apache, NM

Normalized Weighted Emission Potential (WEP) for Fine Particulate Matter (PMFINE)

2018 Preliminary Reasonable Progress

20% Worst Visibility Days

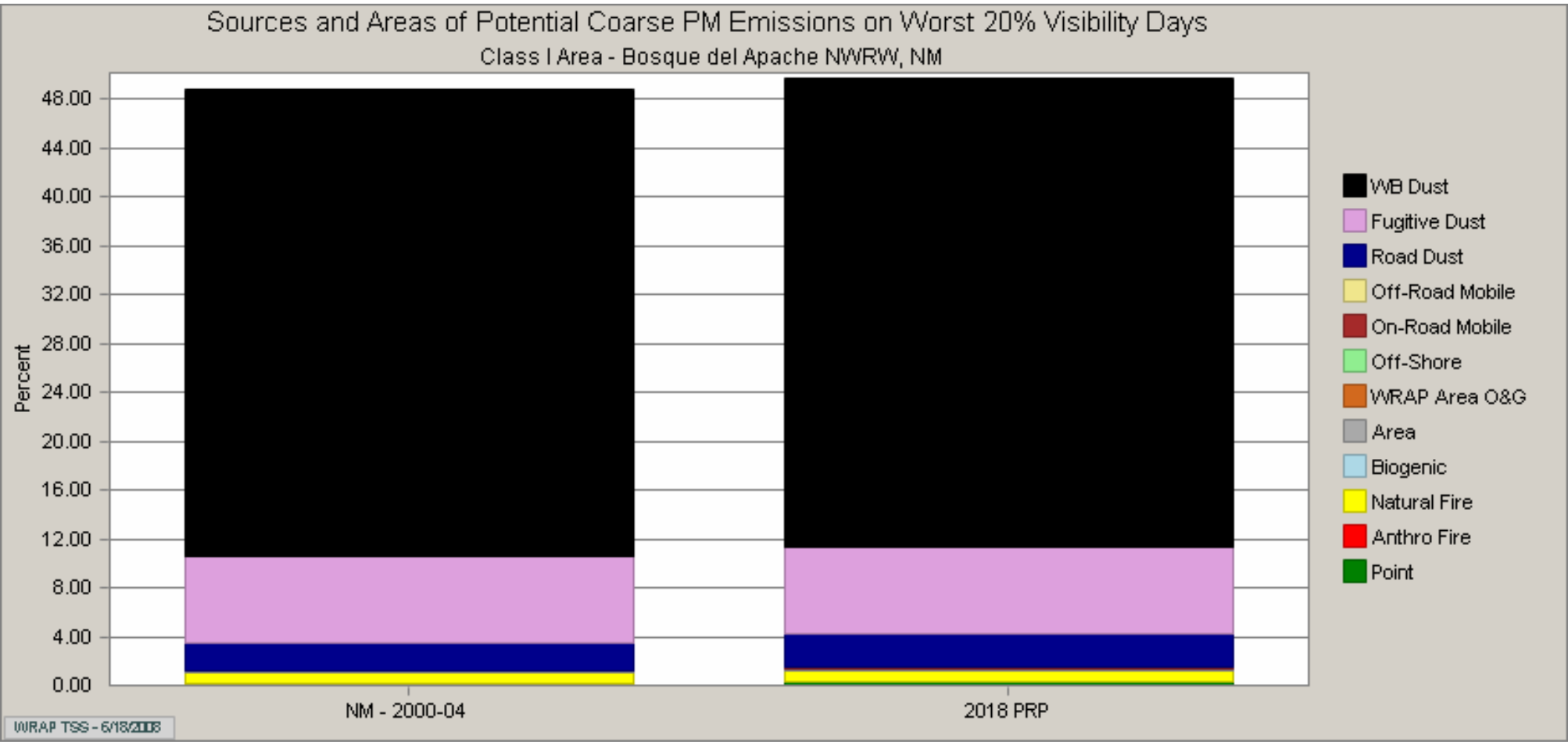


Bosque del Apache NWR [BOAP]
Particulate Matter coarse (PMc)

For the 2000-04 period, the largest potential contributor to visibility impairment at BOAP from PMc emissions is WB Dust, followed by Fugitive Dust and Road Dust (see bar graph). Looking at the map of Normalized Weighted Emissions Potential (WEP) for BOAP, the nearest WEP% value to Bernalillo County is >50% for both 2000-04 and 2018.

Bernalillo's PMc emissions of WB Dust in 2002 were 841.9548 TPY, which is 0.57% of New Mexico's 147,589.19 TPY, and the predicted emissions for Bernalillo County and New Mexico in 2018 remain constant at 2002 values. Bernalillo's 2002 PMc emissions from Fugitive Dust were 15,226.65 TPY which is 29.5% of New Mexico's 51,532.7 TPY, and the predicted emissions for Bernalillo County in 2018 are 15,103.21 TPY which is 26.7% of New Mexico's 56,532.7 TPY.

In 2002 Bernalillo County was the largest contributor of PMc in New Mexico. However, WB Dust was the largest fraction of PMf emissions impacting BOAP, while the largest fraction of PMf emissions in Bernalillo County was due to Fugitive Dust. This would indicate that Bernalillo County is less likely to contribute to the visibility impairment at BOAP from PMf, but this parsing of individual categories of dust may not preclude Bernalilllo's impact on BOAP. Therefore, it is possible that Bernalillo County's PMc emissions contribute to the visibility impairment at BOAP.

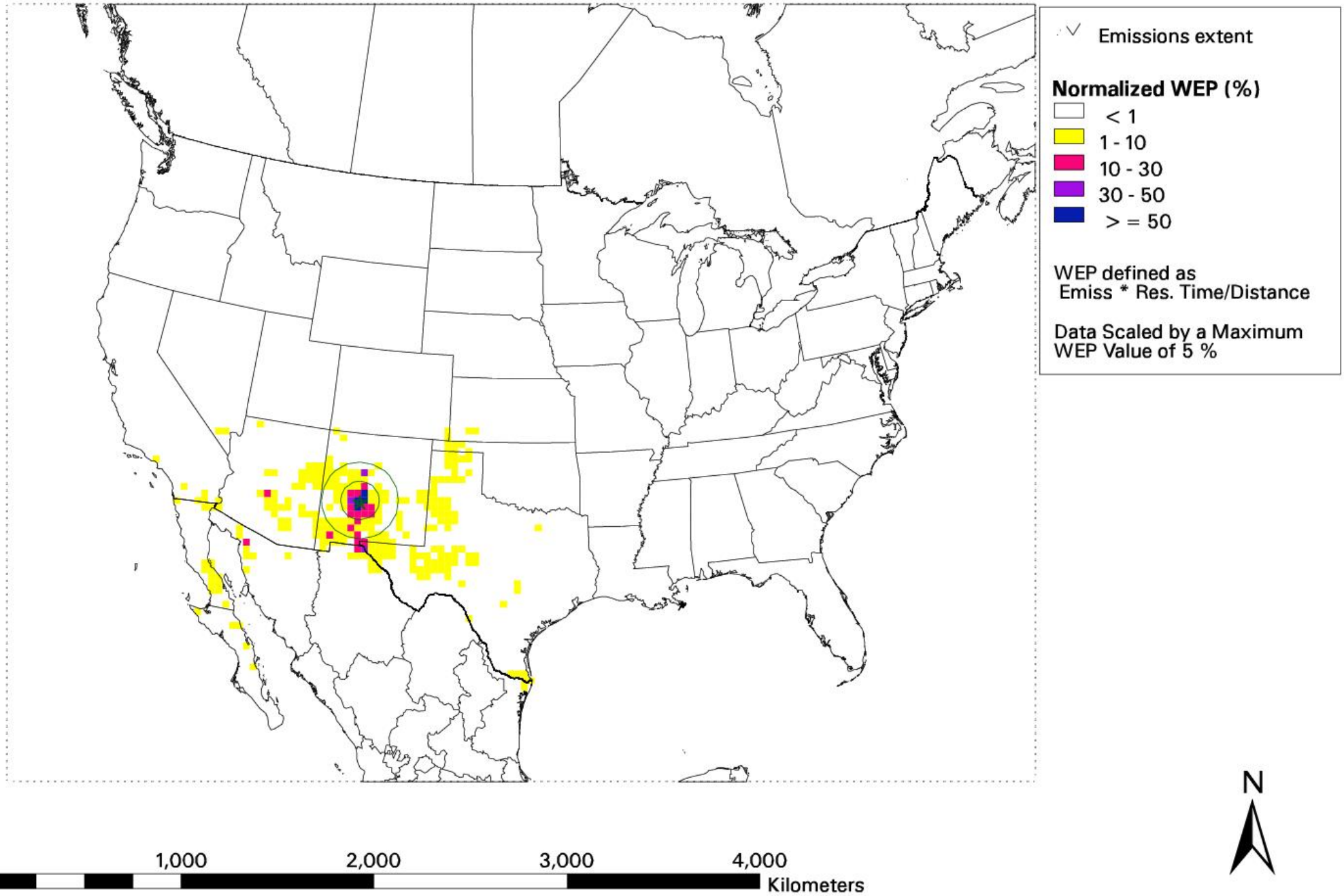

Sources and Areas of Potential Coarse PM Emissions on Worst 20% Visibility Days
Class I Area - Bosque del Apache NWRW, NM
Percent
48.00
44.00
40.00
36.00
32.00
28.00
24.00
20.00
16.00
12.00
8.00
4.00
0.00
NM - 2000-04
2018 PRP
WB Dust
Fugitive Dust
Road Dust
Off-Road Mobile
On-Road Mobile
Off-Shore
WRAP Area O&G
Area
Biogenic
Natural Fire
Anthro Fire
Point
WRAP TSS - 6/18/2008

Bosque del Apache, NM

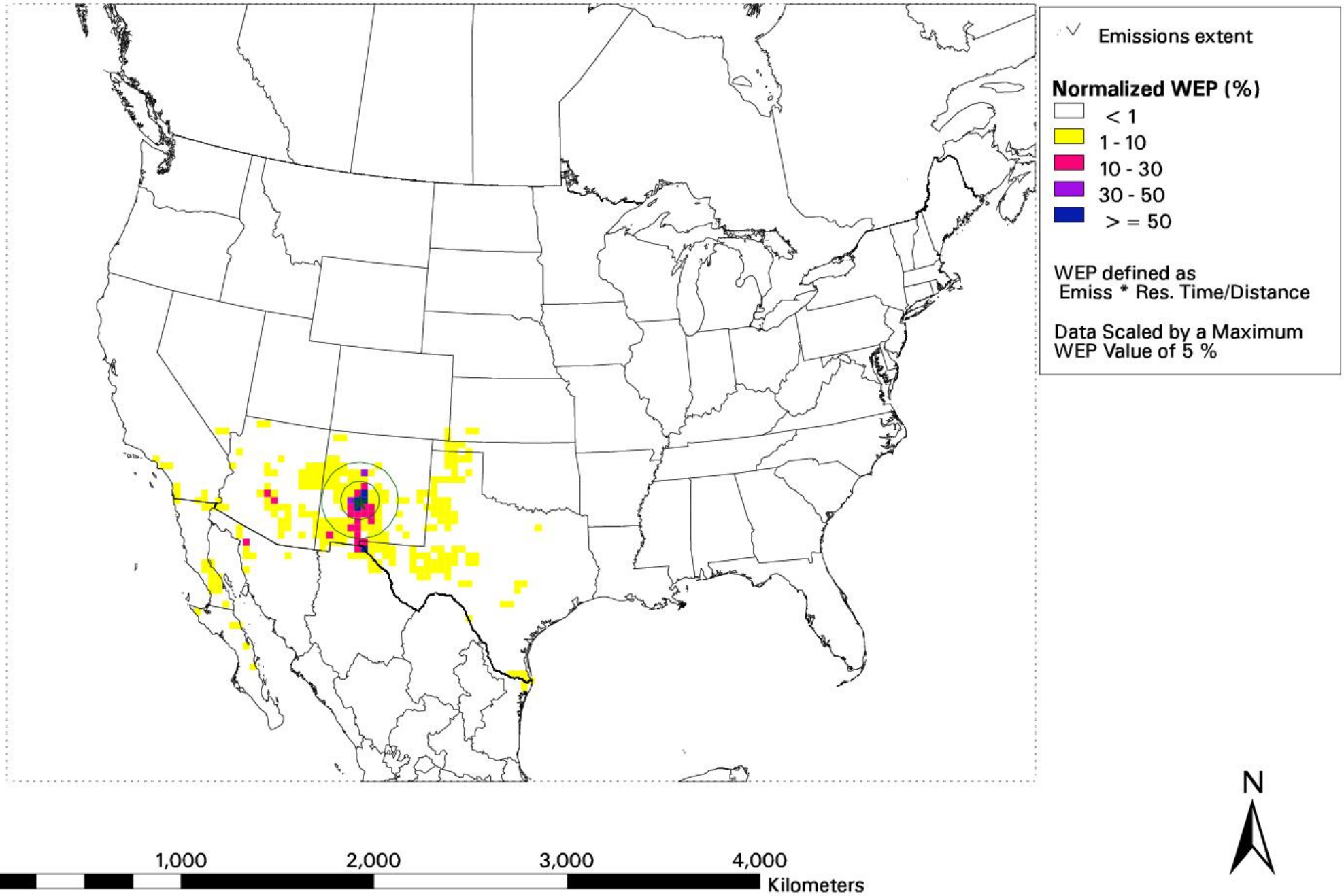
Normalized Weighted Emission Potential (WEP) for Coarse Particulate Matter (PMC)

2000-04 Baseline

20% Worst Visibility Days



Bosque del Apache, NM

Normalized Weighted Emission Potential (WEP) for Coarse Particulate Matter (PMC) 2018 Preliminary Reasonable Progress

20% Worst Visibility Days