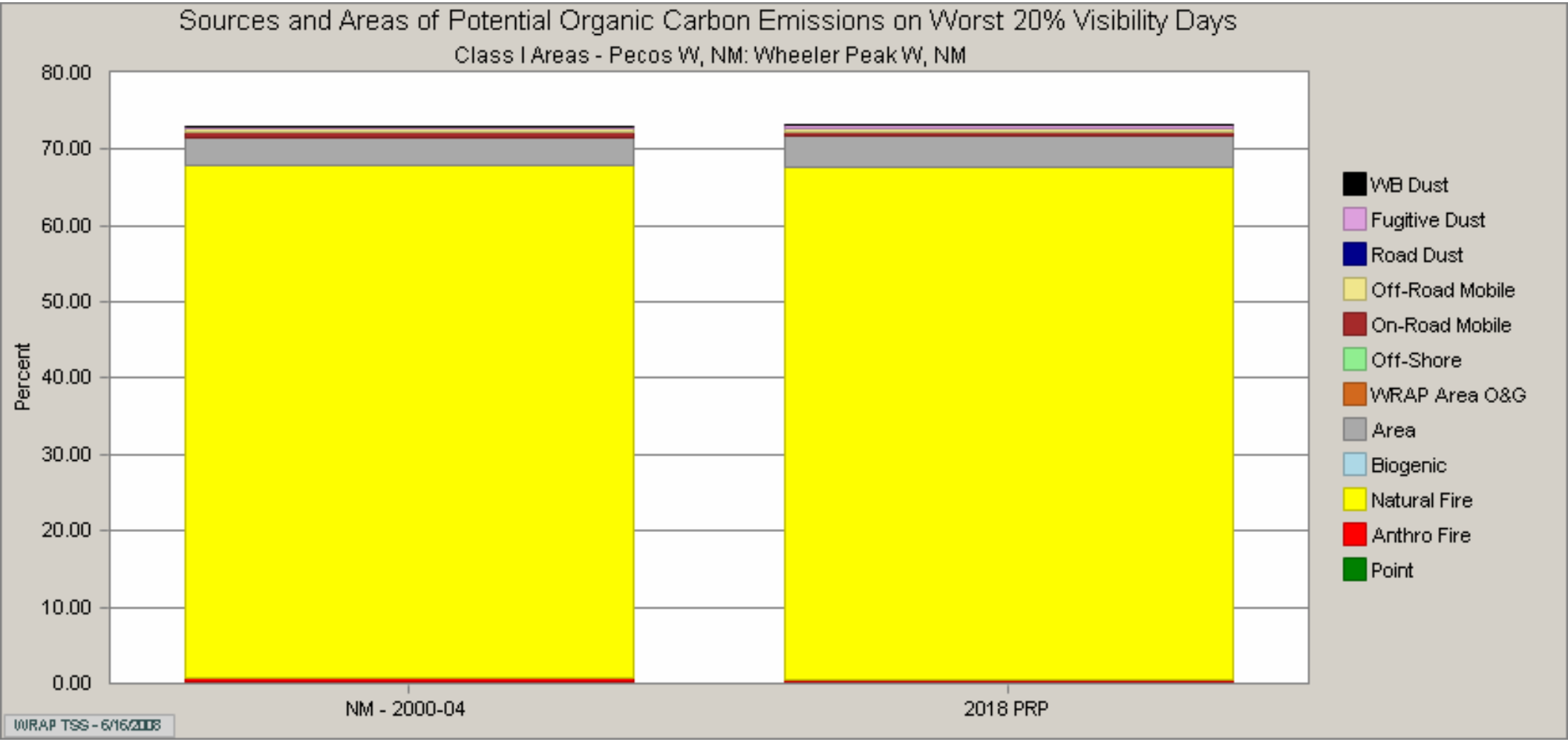
Wheeler Peak Wilderness, NM [WHPE]
Organic Carbon (OC)

The largest potential contributor to visibility impairment in 2000-04 and 2018 is Natural Fire (see bar graph). The county with the greatest amount of OC emissions from Natural Fire is Catron. Looking at the map of Normalized Weighted Emissions Potential (WEP) for WHPE, the nearest WEP% value to Bernalillo County is 1-10% for 2000-04 and >50% for 2018.

In 2002, Bernalillo's OC emissions from natural fire 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 levels.

Based on this information, it is unlikely that Bernalillo County's OC emissions contribute significantly to the visibility impairment at WHPE.

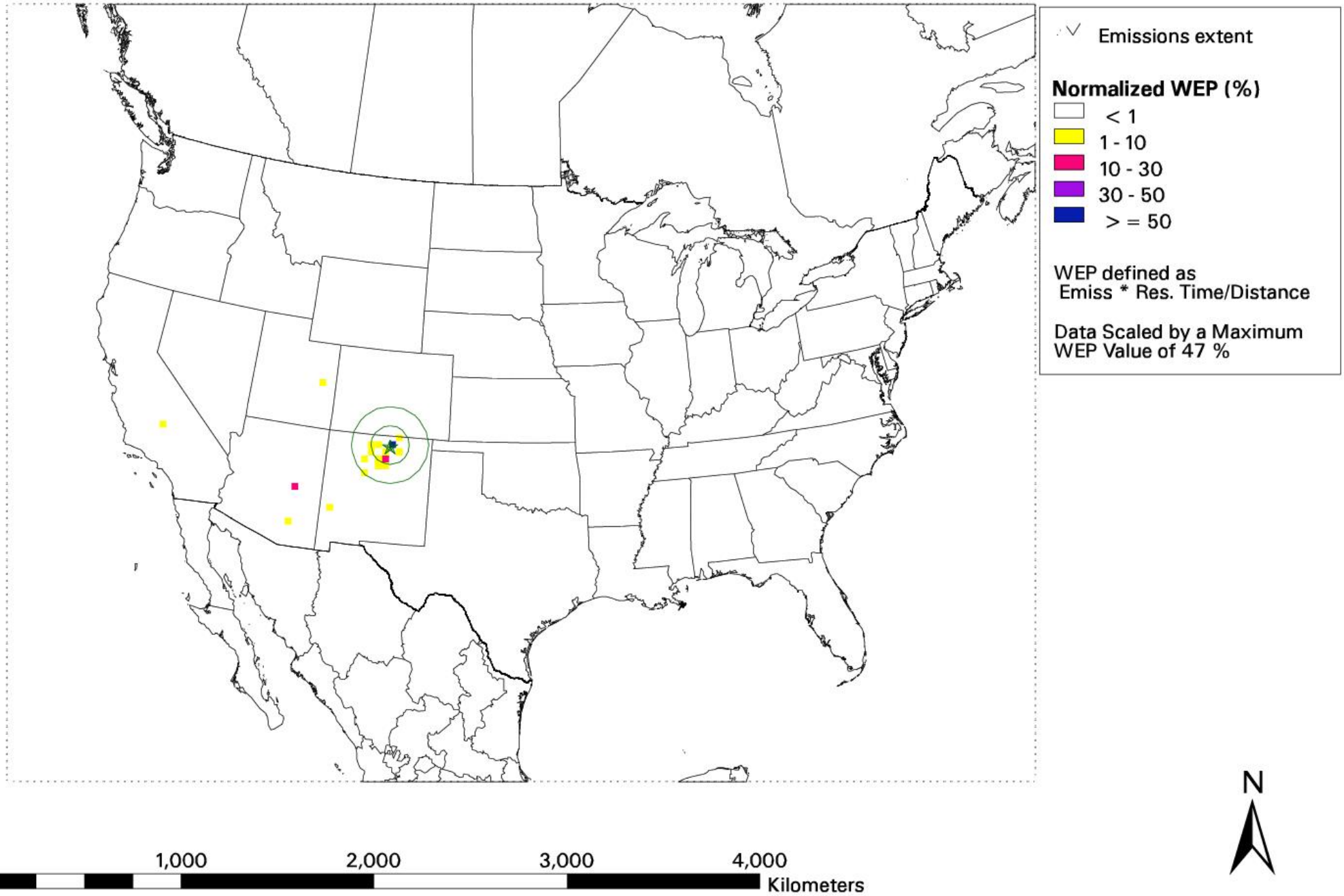

Sources and Areas of Potential Organic Carbon Emissions on Worst 20% Visibility Days
Class I Areas - Pecos W, NM: Wheeler Peak W, NM
Percent
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
NM - 2000-04
2018 PRP
WB Dust
Fugitive Dust
Road Dust
Off-Road Mobile
On-Road Mobile
Off-Shore
WRAP Area O&G
Area
Biogenic
Natural Fire
Anthro Fire
Point
WRAP TSS - 6/16/2008

Wheeler Peak Wilderness, NM

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

2000-04 Baseline

20% Worst Visibility Days

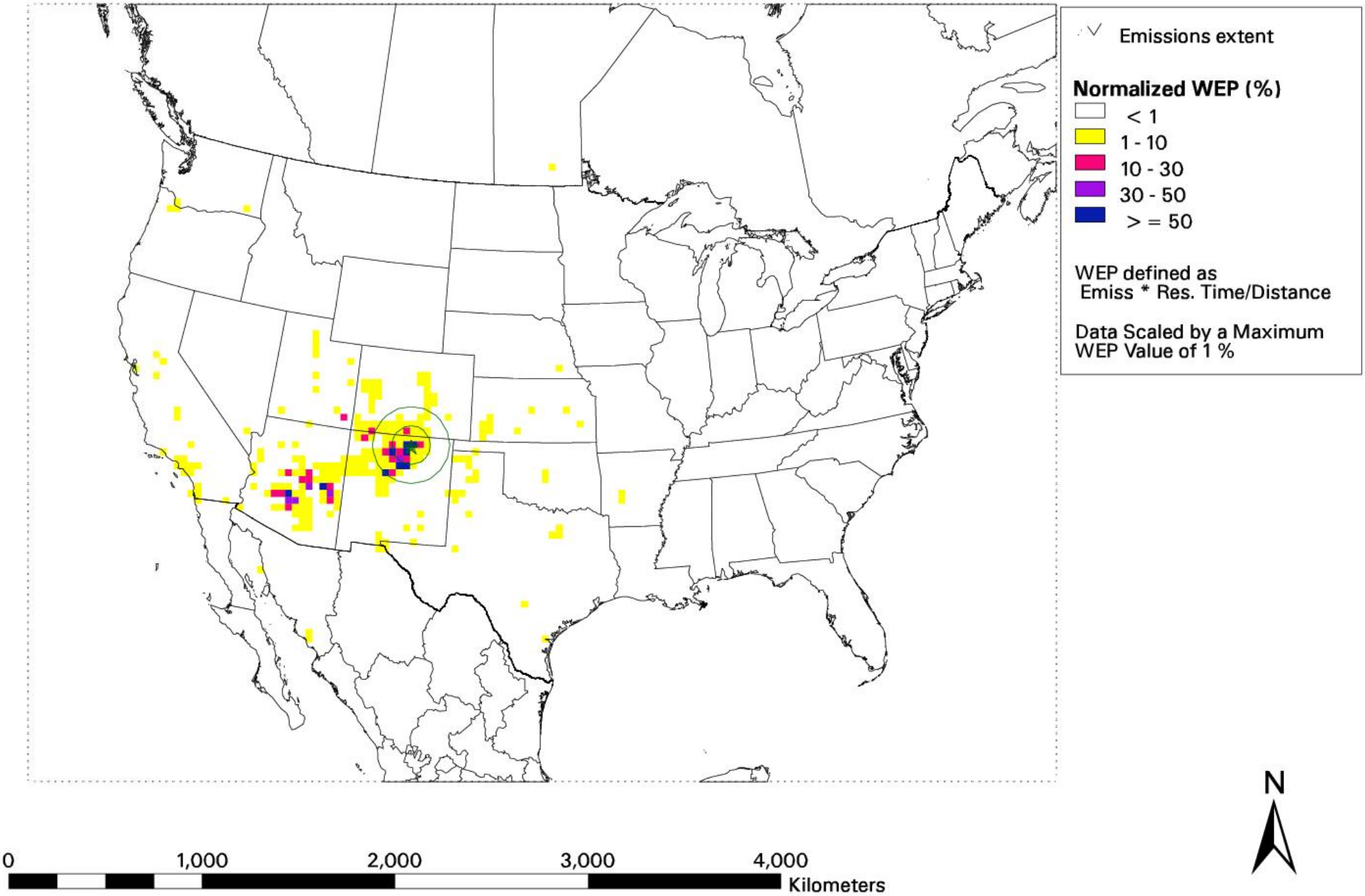


Wheeler Peak Wilderness, NM

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

2018 Preliminary Reasonable Progress

20% Worst Visibility Days

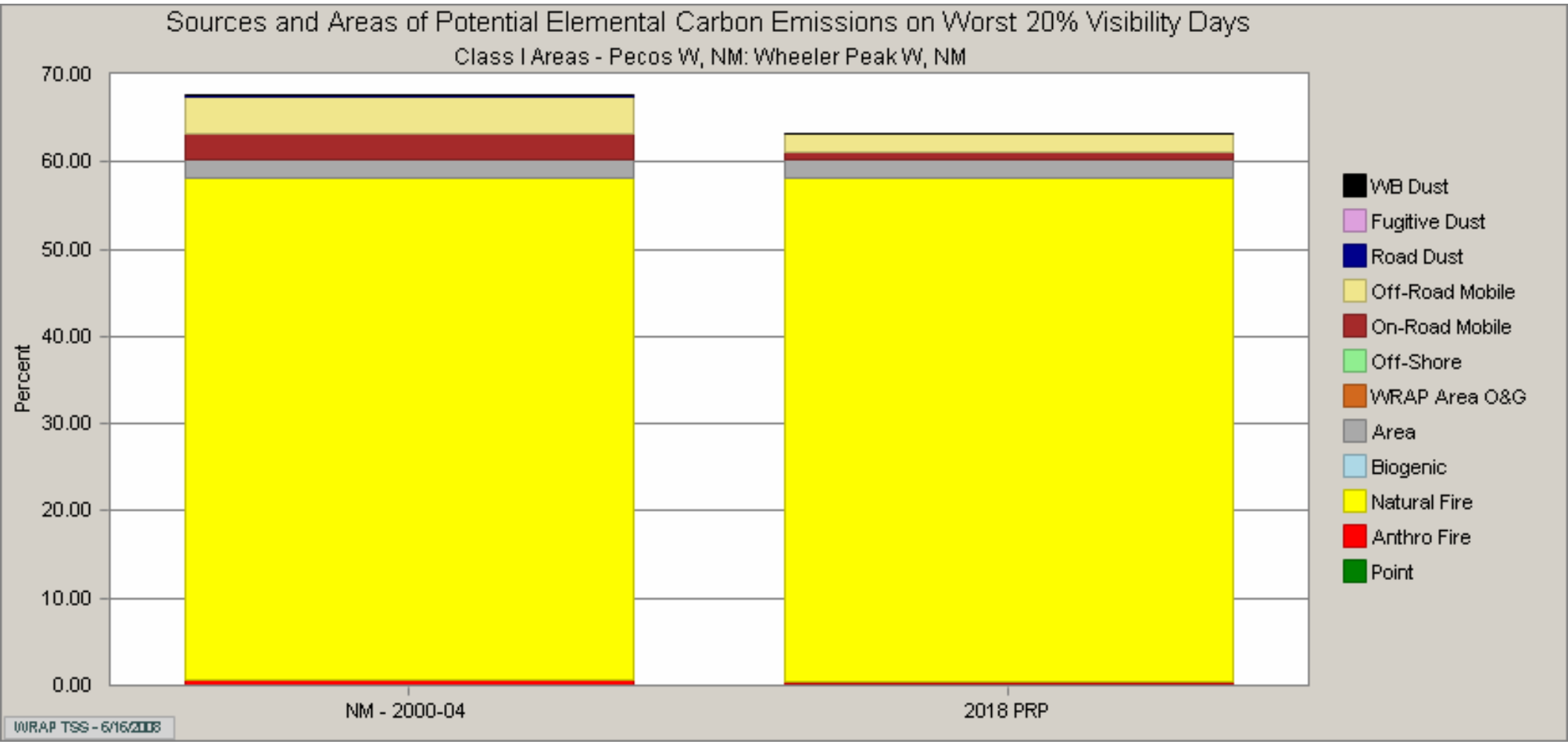


Wheeler Peak Wilderness, NM [WHPE]
Elemental Carbon (EC)

The largest potential contributor to visibility impairment in 2000-04 and 2018 from EC is Natural Fire (see bar graph). Looking at the map of Normalized Weighted Emissions Potential (WEP) for WHPE, the nearest WEP% value to Bernalillo County is 1-10% for 2000-04 and >50% for 2018.

In 2002, Bernalillo's EC emissions from Natural Fire 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 levels.

Based on this information, it is unlikely that Bernalillo County's EC emissions contribute significantly to the visibility impairment at WHPE.

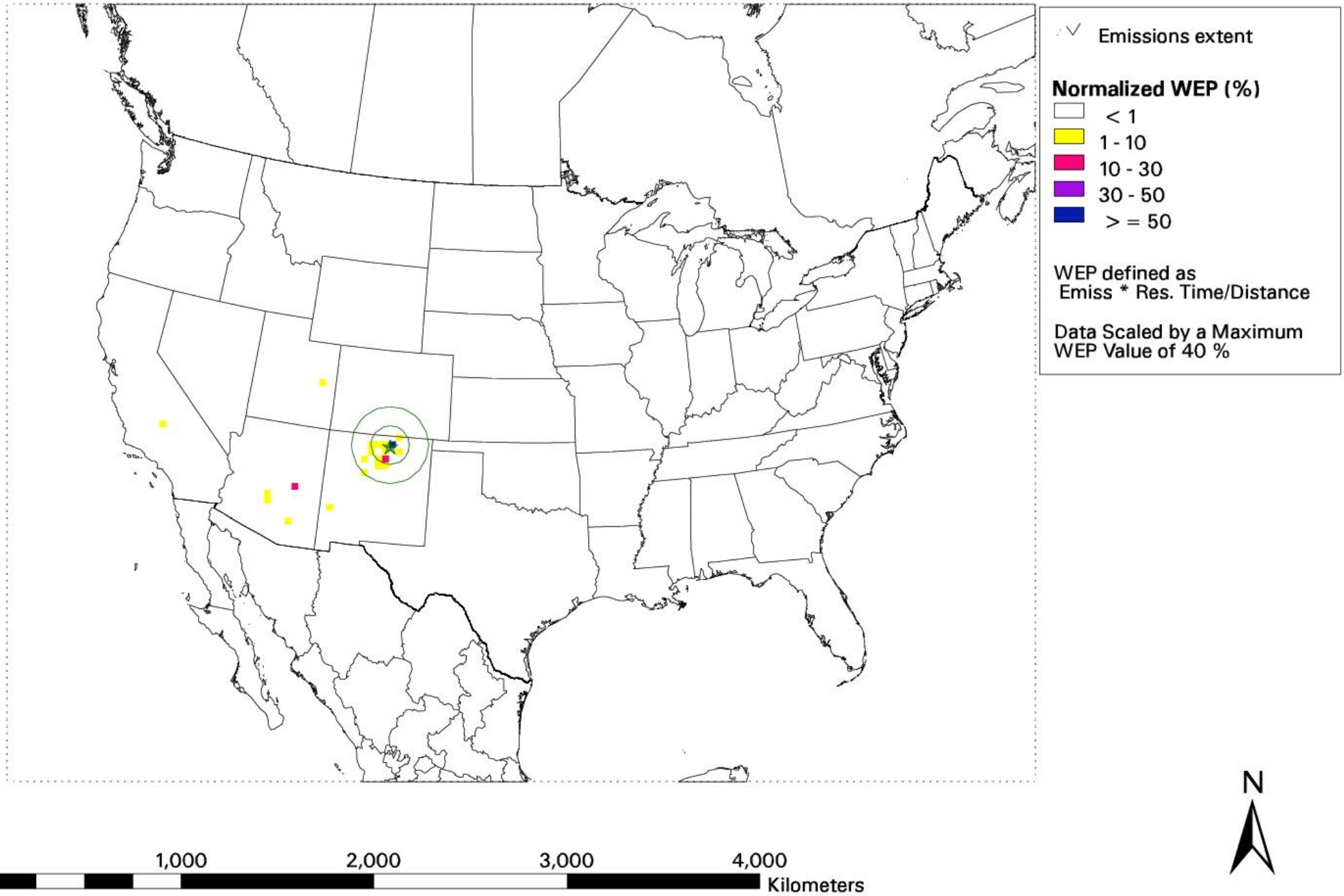

Sources and Areas of Potential Elemental Carbon Emissions on Worst 20% Visibility Days
Class I Areas - Pecos W, NM: Wheeler Peak W, NM
Percent
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
NM - 2000-04
2018 PRP
WB Dust
Fugitive Dust
Road Dust
Off-Road Mobile
On-Road Mobile
Off-Shore
WRAP Area O&G
Area
Biogenic
Natural Fire
Anthro Fire
Point
WRAP TSS - 6/16/2008

Wheeler Peak Wilderness, NM

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

2000-04 Baseline

20% Worst Visibility Days

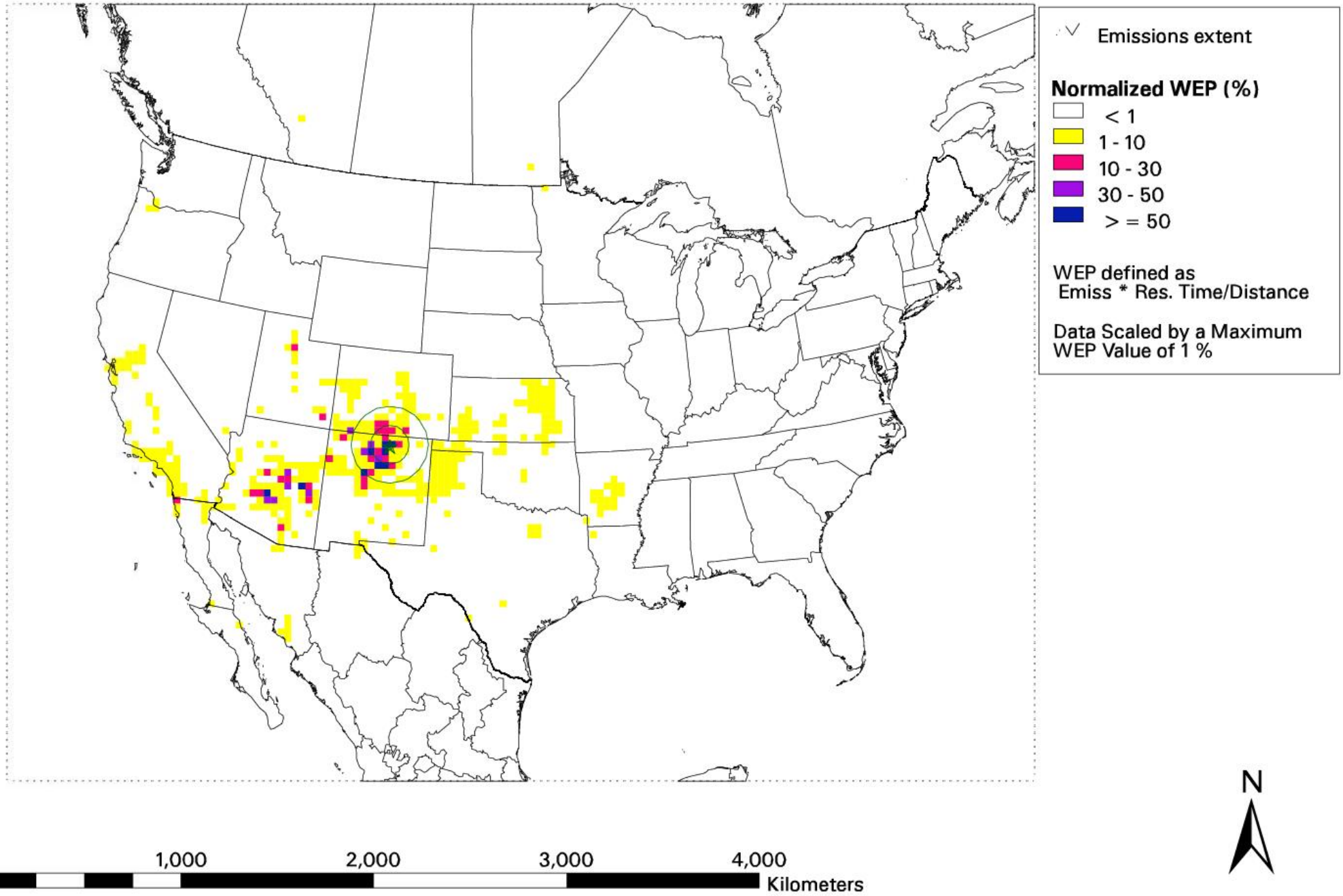


Wheeler Peak Wilderness, NM

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

2018 Preliminary Reasonable Progress

20% Worst Visibility Days

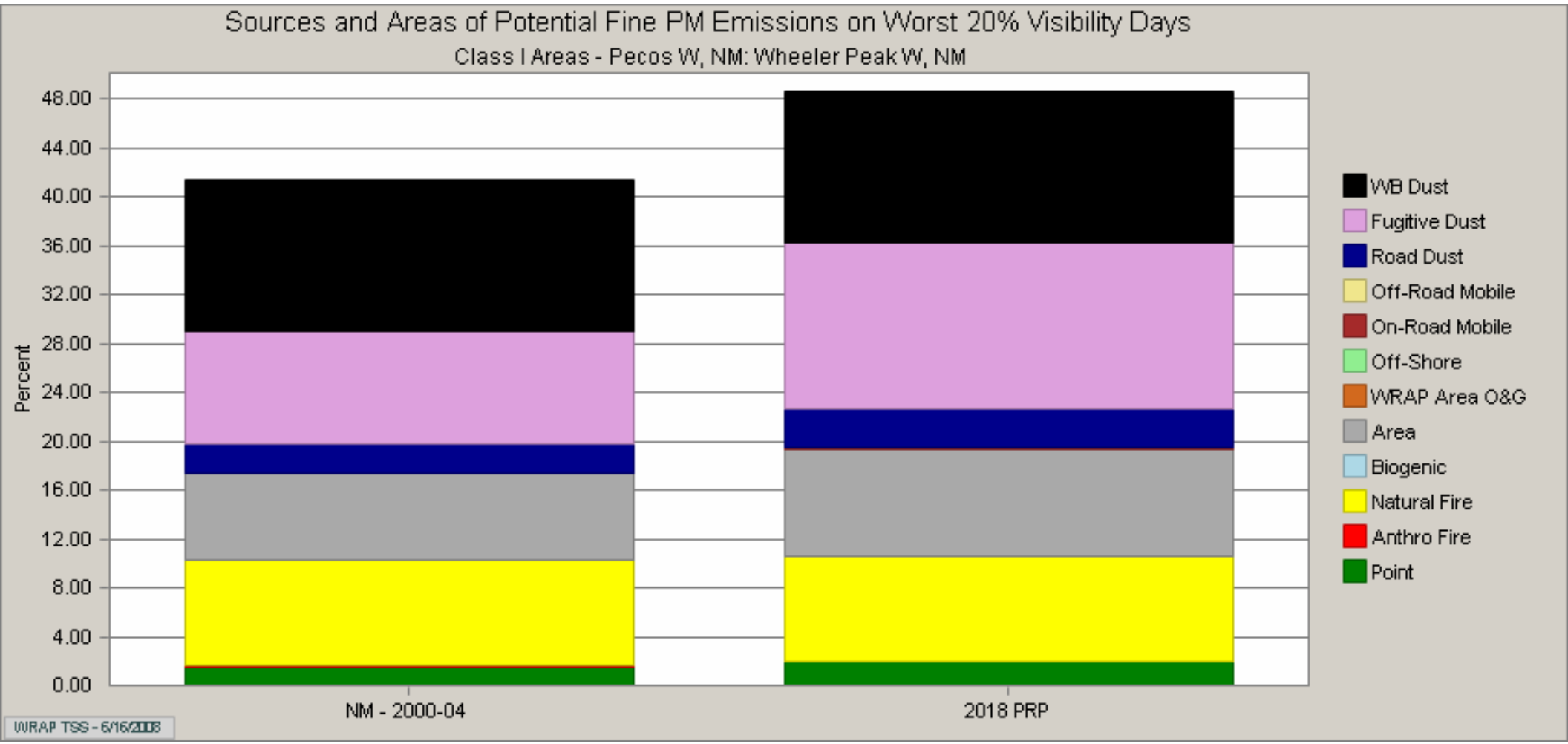


Wheeler Peak Wilderness, NM [WHPE]
Particulate Matter fine (PMf)

The largest potential contributor to visibility impairment in 2000-04 from PMf was due to WB Dust, followed by Fugitive Dust, Natural Fire and Area Sources. The predicted values for 2018 show Fugitive Dust as the most significant, followed by WB Dust, Area sources and Natural Fire (see bar graph). Looking at the map of Normalized Weighted Emissions Potential (WEP) for WHPE, the nearest WEP% value to Bernalillo County is 30-50% for 2000-04 and >50% for 2018.

The county with the greatest PMf emissions in 2002 was Bernalillo County, due mostly to Fugitive Dust and Area sources. Bernalillo's PMf emissions from Fugitive Dust were 1,593.21 TPY which is 23.6% of New Mexico's 6,751.05 TPY, and the predicted emissions for Bernalillo County in 2018 are 1,579.9 TPY which would be 22.5% of New Mexico's 7,025.69 TPY. In 2002, Bernalillo's PMf emissions from Area sources were 502.86, which is 17.8% of New Mexico's 2,820.9 TPY, and the predicted emissions for Bernalillo County in 2018 are 670.93 TPY which would be 18.4% of New Mexico's 3,643.79 TPY. In 2002, Bernalillo's PMf emissions from WB Dust 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 remained constant at 202 values.

In 2002, Bernalillo County was the largest contributor of PMf in New Mexico. However, WB Dust was the largest fraction of PMf emissions impacting WHPE, 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 WHPE from PMf, but this parsing of individual categories of dust may not preclude Bernalilllo's impact on WHPE. The situation in 2018 is expected to be different, with Fugitive Dust contributing the most, followed by WB Dust, Area sources and Natural Fire. Therefore, it is possible that Bernalillo County's PMf emissions contributed to the visibility impairment at WHPE in 2002, and are likely to contribute in 2018.

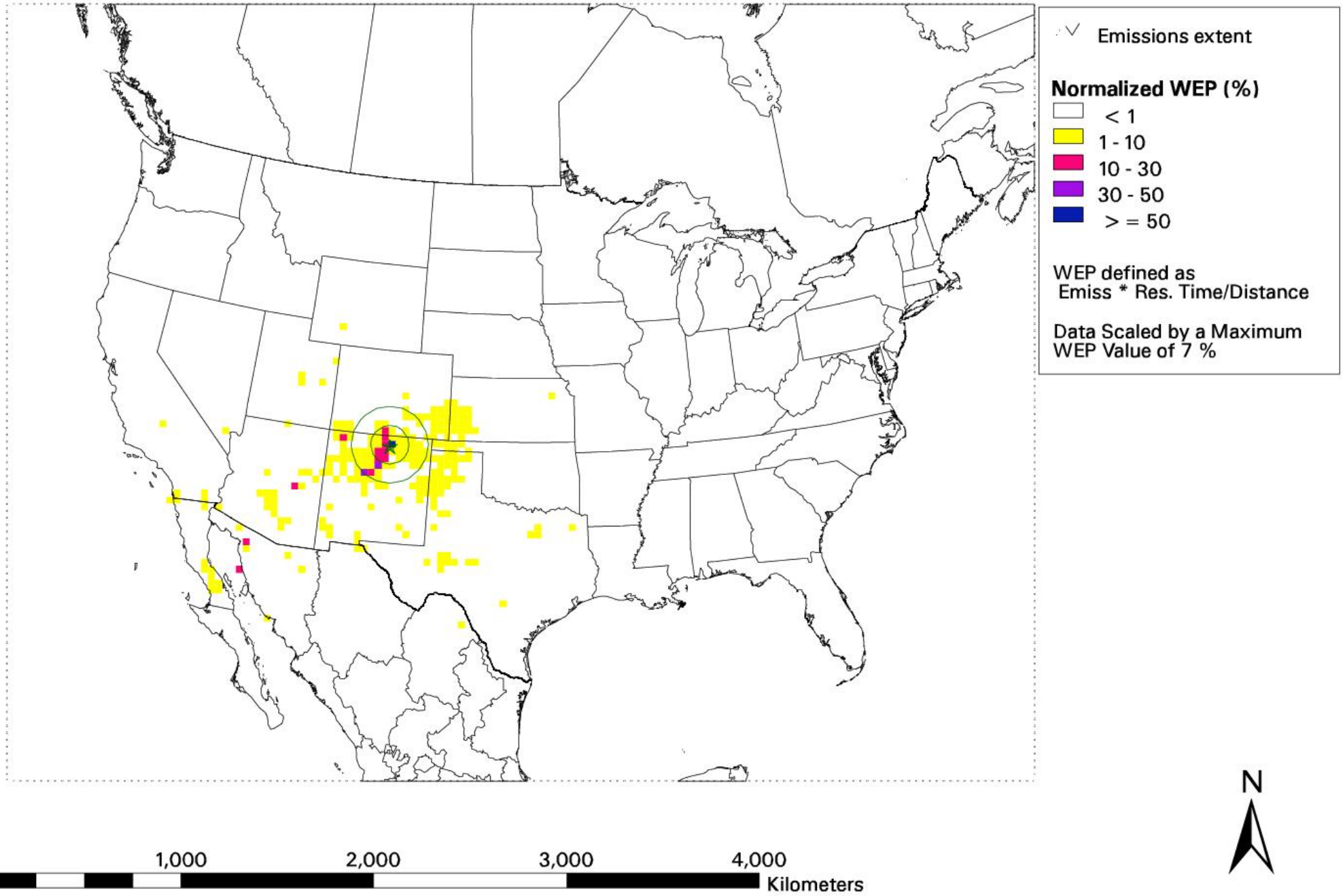

Sources and Areas of Potential Fine PM Emissions on Worst 20% Visibility Days
Class I Areas - Pecos W, NM: Wheeler Peak W, NM
Percent
48.00
44.00
40.00
36.00
32.00
28.00
24.00
20.00
16.00
12.00
8.00
4.00
0.00
NM - 2000-04
2018 PRP
WB Dust
Fugitive Dust
Road Dust
Off-Road Mobile
On-Road Mobile
Off-Shore
WRAP Area O&G
Area
Biogenic
Natural Fire
Anthro Fire
Point
WRAP TSS - 6/16/2008

Wheeler Peak Wilderness, NM

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

2000-04 Baseline

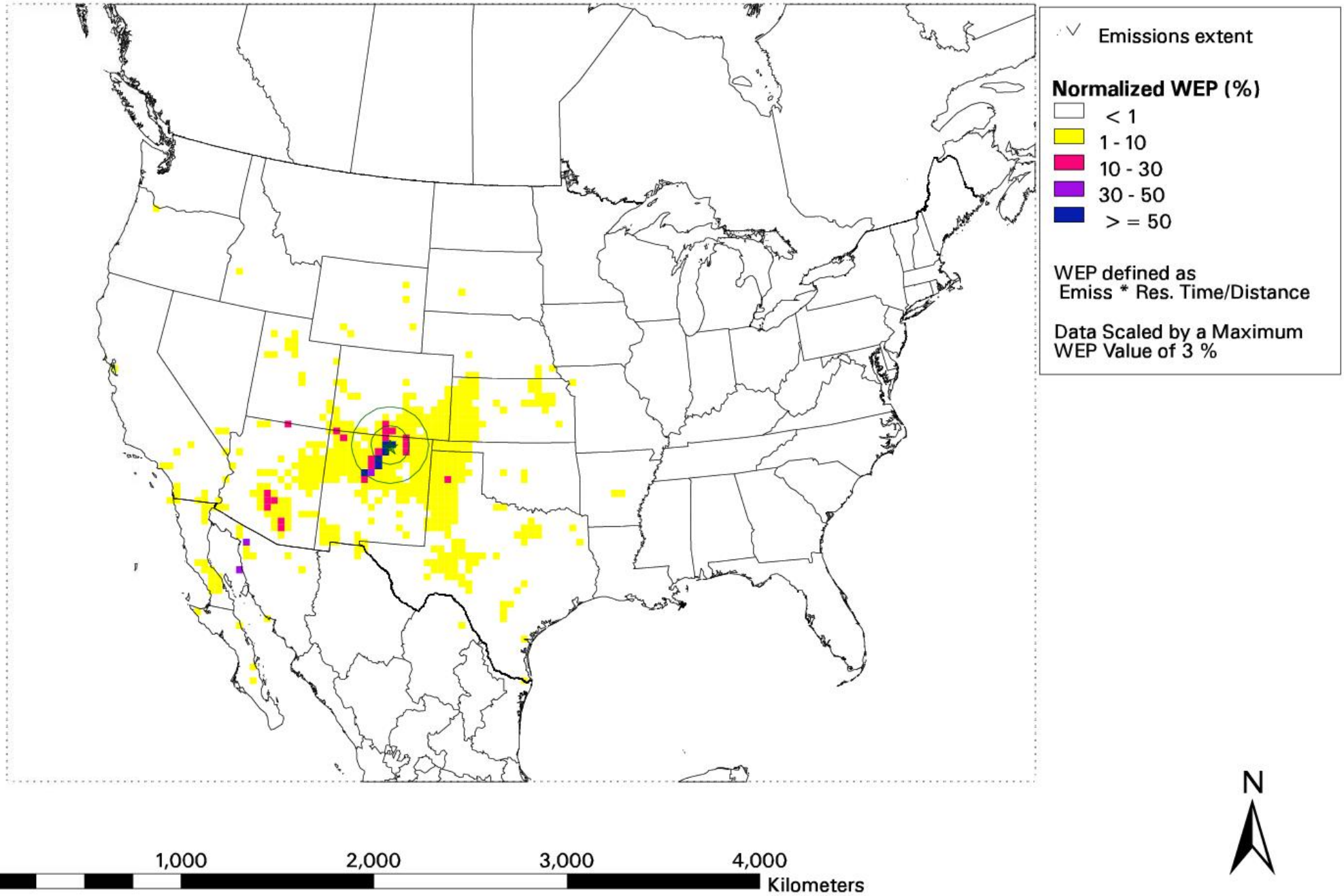
20% Worst Visibility Days



Wheeler Peak Wilderness, NM

Normalized Weighted Emission Potential (WEP) for Fine Particulate Matter (PMFINE) 2018 Preliminary Reasonable Progress

20% Worst Visibility Days

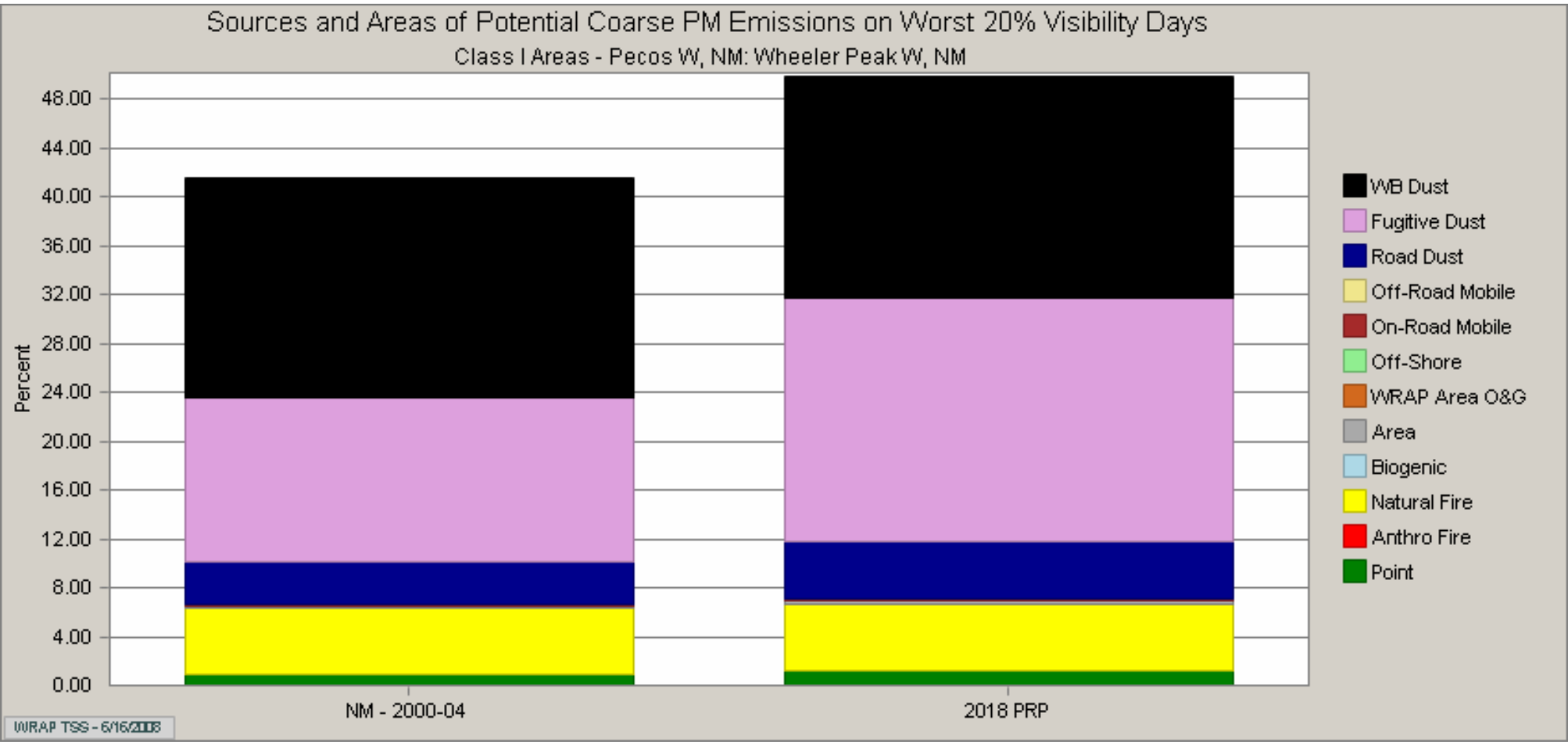


Wheeler Peak Wilderness, NM [WHPE]
Particulate Matter coarse (PMc)

For the 2000-04 period, the largest potential contributor to visibility impairment at WHPE from PMc emissions is due to WB Dust followed by Fugitive Dust. In 2018 WB Dust is predicted to surpass Fugitive Dust as the most significant PMc pollutant (see bar graph). Looking at the map of Normalized Weighted Emissions Potential (WEP) for WHPE, the nearest WEP% value to Bernalillo County is >50% for 2000-04 and 2018.

The county with the greatest PMc emissions in 2002 was Bernalillo County, due primarily to fugitive dust which amounted to 15,226.65 TPY which accounted for 29.5% of New Mexico's 51532.7 TPY. The predicted value for Bernalillo in 2018 is 15,103.21 TPY, which is 26.7% of New Mexico's 56,532.7 TPY. In 2002, Bernalillo's PMc emissions from WB Dust 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 remained constant at 2002 values.

In 2002 Bernalillo County was the largest contributor of PMc in New Mexico, due mostly to Fugitive Dust. However, during 2000-04, WB Dust was the largest fraction of PMc emissions impacting WHPE. This would indicate that Bernalillo County is less likely to contribute to the visibility impairment at WHPE from PMc / WB Dust, but this parsing of individual categories of dust may not preclude Bernalilllo's impact on WHPE. Therefore, it is possible that Bernalillo County's PMc emissions contribute to the visibility impairment at WHPE.

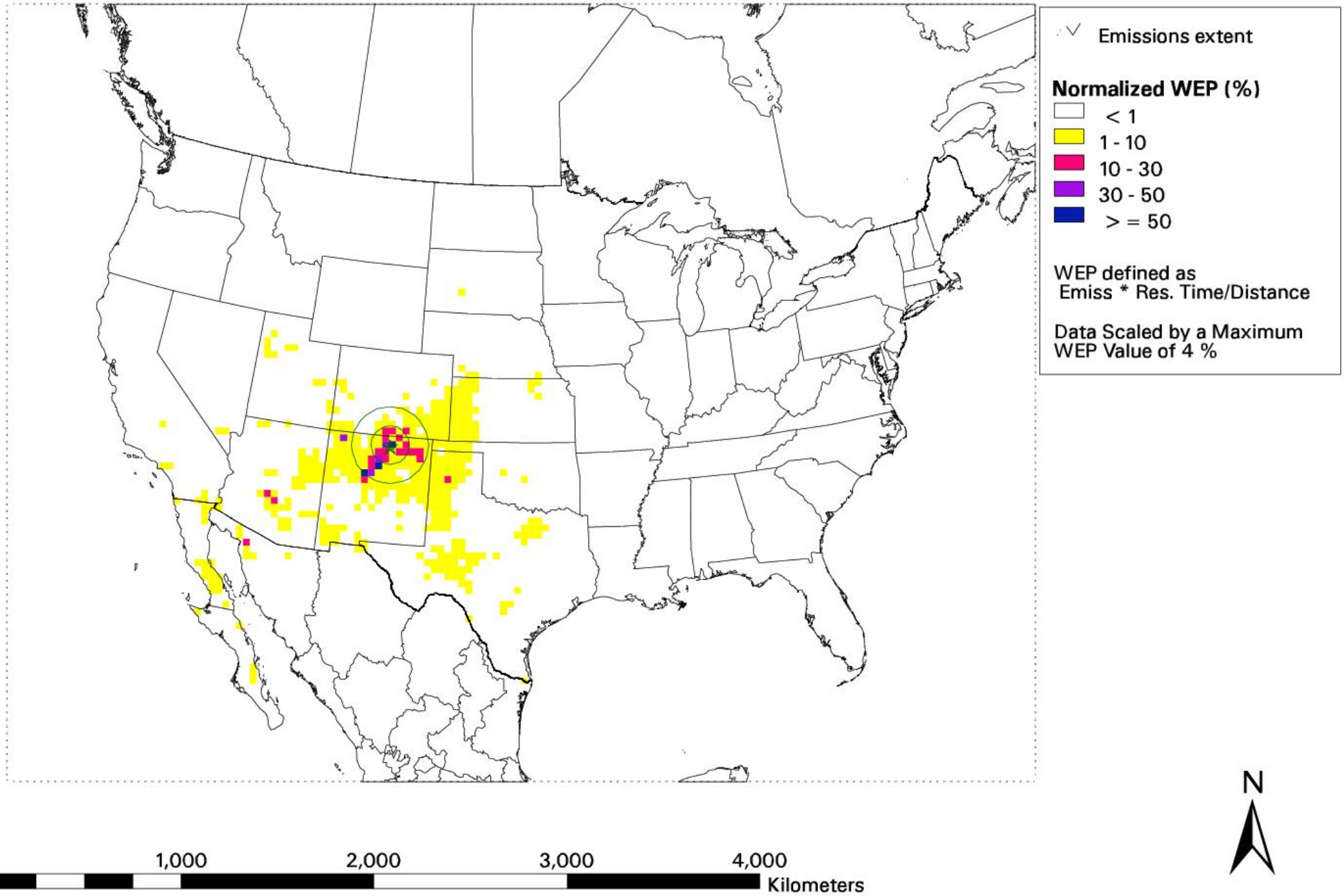

Sources and Areas of Potential Coarse PM Emissions on Worst 20% Visibility Days
Class I Areas - Pecos W, NM: Wheeler Peak W, NM
Percent
48.00
44.00
40.00
36.00
32.00
28.00
24.00
20.00
16.00
12.00
8.00
4.00
0.00
NM - 2000-04
2018 PRP
WB Dust
Fugitive Dust
Road Dust
Off-Road Mobile
On-Road Mobile
Off-Shore
WRAP Area O&G
Area
Biogenic
Natural Fire
Anthro Fire
Point
WRAP TSS - 6/16/2008

Wheeler Peak Wilderness, NM

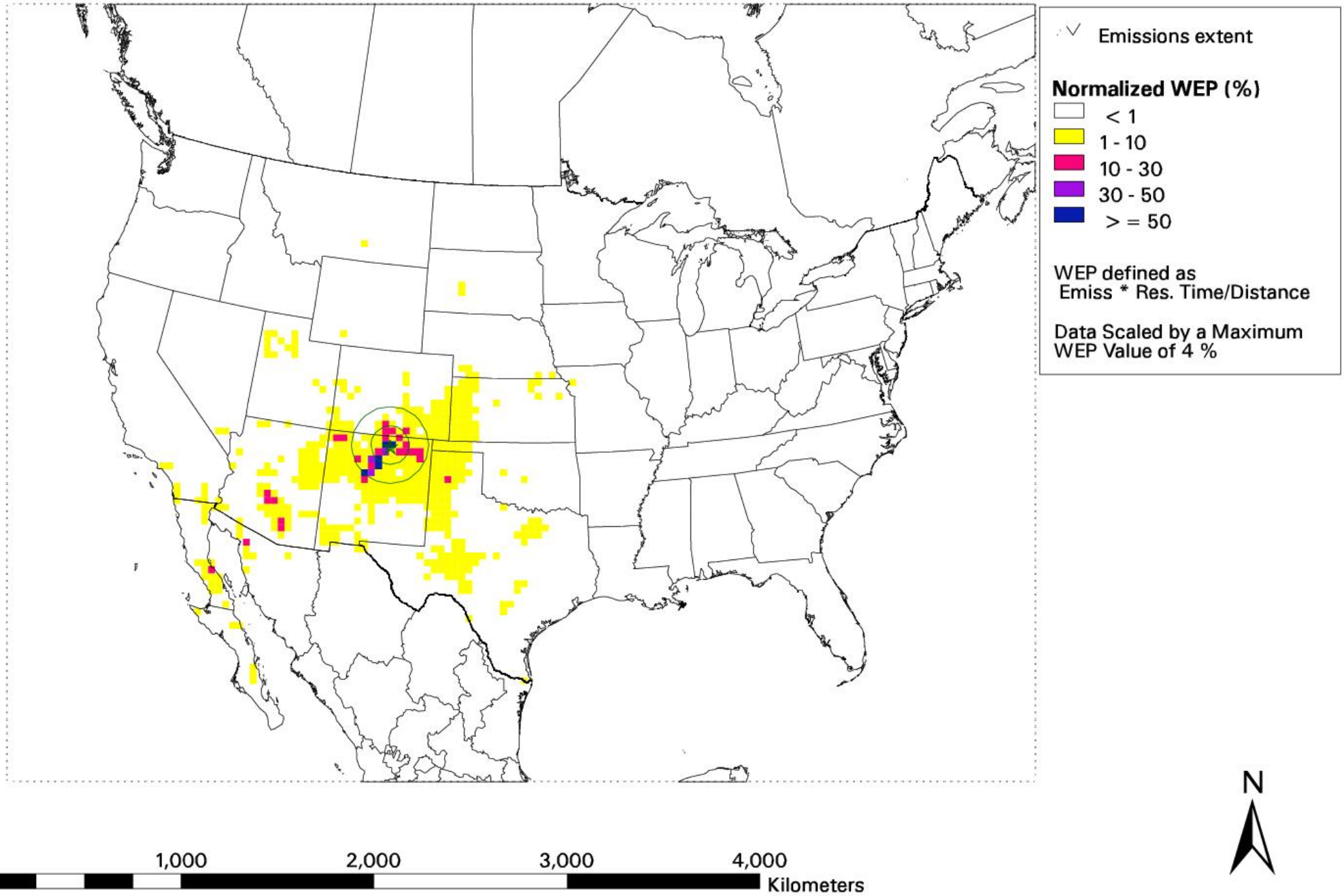
Normalized Weighted Emission Potential (WEP) for Coarse Particulate Matter (PMC)

2000-04 Baseline

20% Worst Visibility Days



Wheeler Peak Wilderness, NM

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

20% Worst Visibility Days