

Background Criteria Pollutant Air Monitoring Data
for Modeling Rhode Island Sources
(based on 2012 – 2014 monitoring data, unless otherwise indicated).

SO₂

For sources in Bristol County and northern Newport County (based on Fall River monitor):

1-hour:	123 $\mu\text{g}/\text{m}^3$ (3-year average of 99th percentile of 1-hour daily maxima)
3-hour:	200 $\mu\text{g}/\text{m}^3$ (highest 2 nd annual daily high value in last 3 years)
24-hour:	53 $\mu\text{g}/\text{m}^3$ (highest 2 nd annual daily average value in last 3 years) ¹
Annual:	6.29 $\mu\text{g}/\text{m}^3$ (highest annual mean in last 3 years) ¹

For sources in other Rhode Island locations (based on Brown University, Providence (BR) and Francis School, E. Providence (EP) monitors):

1-hour:	36 $\mu\text{g}/\text{m}^3$ (3-year average of 99th percentile of 1-hour daily maxima)-EP
3-hour:	45 $\mu\text{g}/\text{m}^3$ (highest 2 nd annual daily high value in last 3 years)-EP
24-hour:	21 $\mu\text{g}/\text{m}^3$ (highest 2 nd annual daily average value in last 3 years) ¹ -BR
Annual:	3.69 $\mu\text{g}/\text{m}^3$ (highest annual mean in last 3 years) ¹ -BR

NO₂ (based on Brown University, Providence monitor)

1-hour:	80 $\mu\text{g}/\text{m}^3$ (3-year average of 98 th percentile of 1-hour daily maxima)
Annual:	19.7 $\mu\text{g}/\text{m}^3$ (highest annual mean in last 3 years)

CO (based on East Providence monitor)

1-hour:	2,346 $\mu\text{g}/\text{m}^3$ (highest 2 nd annual daily high value in last 3 years)
8-hour:	1,495 $\mu\text{g}/\text{m}^3$ (highest 2 nd annual daily high value in last 3 years)

PM₁₀

Urban near-roadway area (based on Vernon St., Pawtucket monitor)

24-hour:	44 $\mu\text{g}/\text{m}^3$ (average 2 nd annual daily average value in last 3 years) ²
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Urban/suburban area not near roadway (based on Providence monitors)

24-hour:	31 $\mu\text{g}/\text{m}^3$ (average 2 nd annual daily average value in last 3 years)
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¹ 24-hour and annual average SO₂ standards will be revoked one year after designations for new NAAQS (Rhode Island designations expected in 2017).

² 2012 Vernon St., Pawtucket monitoring data are incomplete, so 2011, 2013 and 2014 data were used

Rural area (based on W. Greenwich monitor)

24-hour: $17 \mu\text{g}/\text{m}^3$ (average 2nd annual daily average value in last 3 years)

Note that the annual average PM₁₀ NAAQS is no longer in effect

PM_{2.5}

Urban/suburban area (based on Pawtucket, Providence and E. Providence monitors)

24-hour: $20.9 \mu\text{g}/\text{m}^3$ (3-year average of 98th percentile) –Pawtucket monitor²

Annual: $8.79 \mu\text{g}/\text{m}^3$ (3-year average of annual mean)- Pawtucket monitor²

Rural area (based on W. Greenwich monitor)

24-hour: $13.1 \mu\text{g}/\text{m}^3$ (3-year average of 98th percentile)

Annual: $5.17 \mu\text{g}/\text{m}^3$ (3-year average of annual mean)