

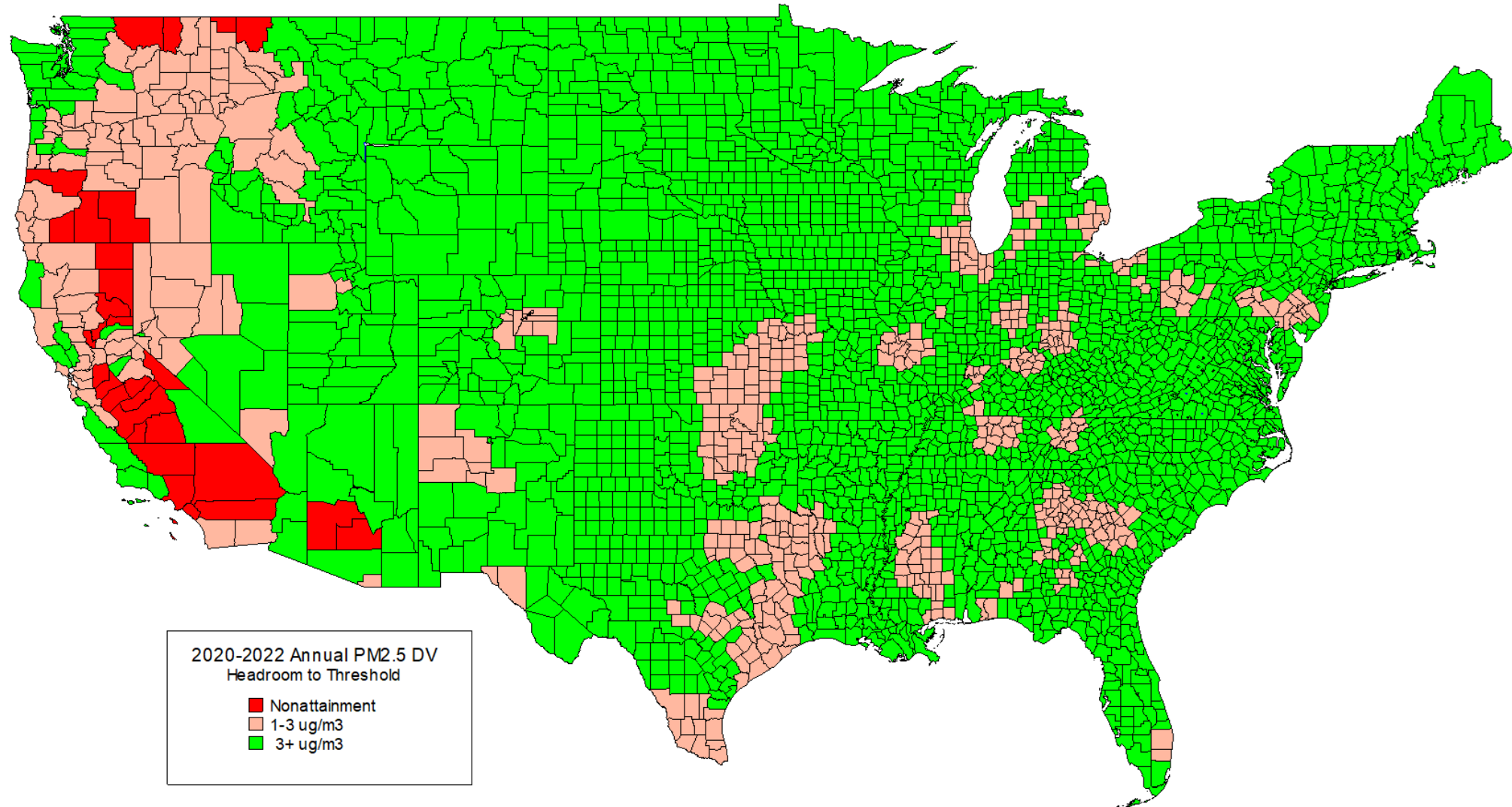
Map context provided by Allen Freemyer, Freemyer and Associates (February 2024)

The U.S. Environmental Protection Agency (EPA) signed a [final rule](#) that significantly lowers the annual health-based National Ambient Air Quality Standard (NAAQS) for fine particulate matter (PM_{2.5}) from a level of 12 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to $9 \mu\text{g}/\text{m}^3$. EPA asserts that this decision is required to protect public health, including the health of sensitive or at-risk groups, with an adequate margin of safety. EPA's revised standard will be effective 60 days after the final rule is published in the *Federal Register*. EPA is retaining the existing primary (health-based) and secondary (welfare-based) 24-hour PM_{2.5} standards at $35 \mu\text{g}/\text{m}^3$. EPA is also retaining the primary and secondary 24-hour standards for coarse particulate matter (PM₁₀) at $150 \mu\text{g}/\text{m}^3$. See EPA's [press release](#), [fact sheet](#), and [overview presentation](#) for short summaries of this final rule.

EPA defends its decision by asserting that "99 [percent] of U.S. counties will be able to meet the revised PM_{2.5} annual standard with actions already in place as of 2032. See EPA's [map](#) projecting 52 counties it believes would not meet the annual PM_{2.5} standard in 2032. EPA also provides a [map](#) claiming that most counties with monitors already meet the new standard. Yet, a separate industry [analysis](#) estimates that over 500 counties would not meet the tighter standard of $9 \mu\text{g}/\text{m}^3$. See also this [map](#) that industry has used repeatedly to demonstrate the extensive permitting challenges this new standard will cause across the contiguous United States. The reason behind this discrepancy is that EPA only counted counties with air monitors when developing its estimates.

The new standard will significantly impair the ability to permit projects in areas which will go into non-attainment status or areas that have little "head room" for further economic development. Furthermore, the new standard will place a very large burden on state air quality offices who will now be required to develop new or amended State Implementation Plans which take years to develop, are highly controversial, and very expensive.

Current PM_{2.5} NAAQS (12.0 µg/m³) leaves room for economic growth

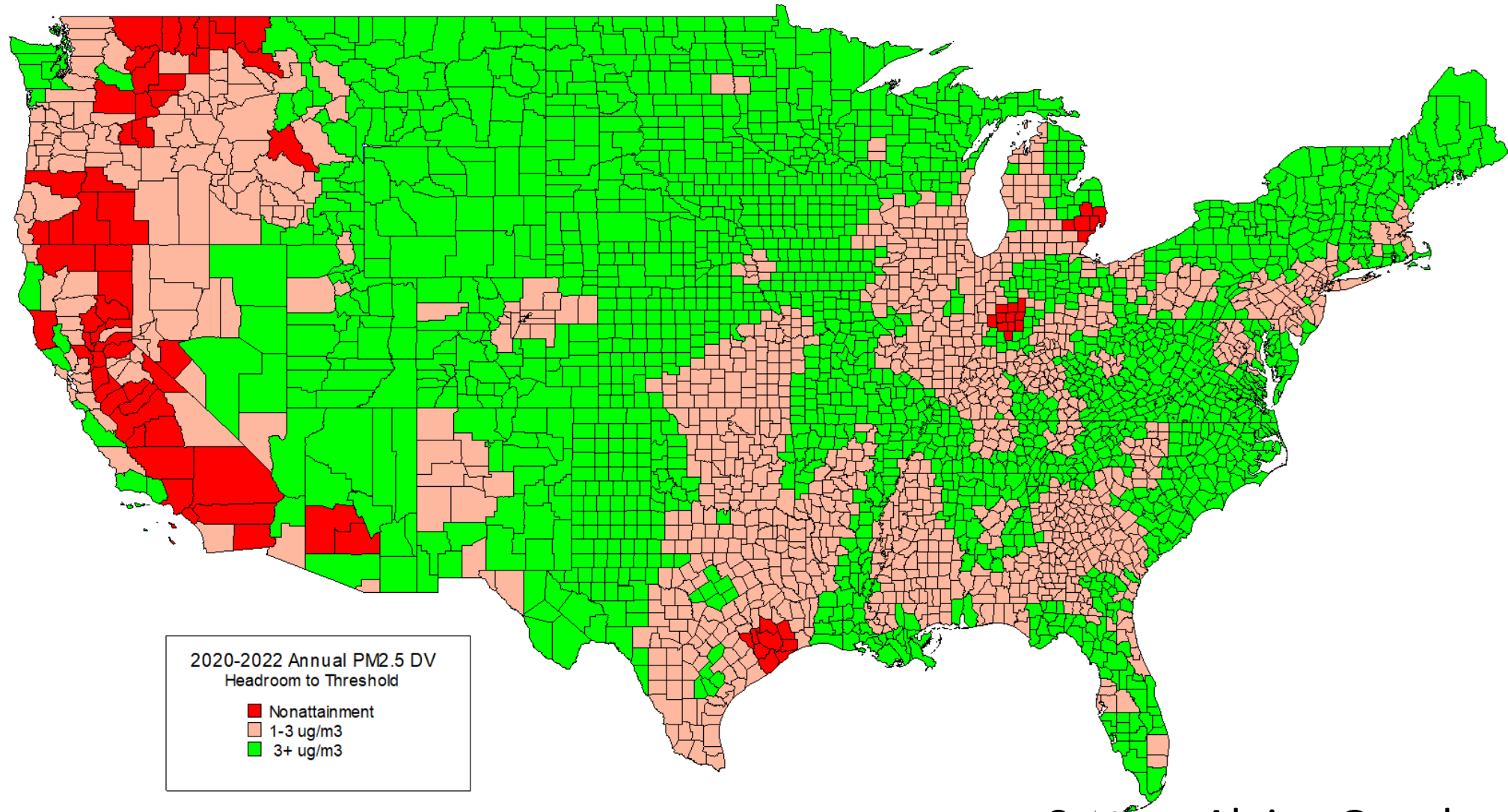


Source: Alpine Geophysics

Non-monitored county values are calculated using inverse distance weighting average of five closest monitored values

Immediate Impact of PM_{2.5} NAAQS at 11.0 µg/m³

Limits economic growth in many areas of the country

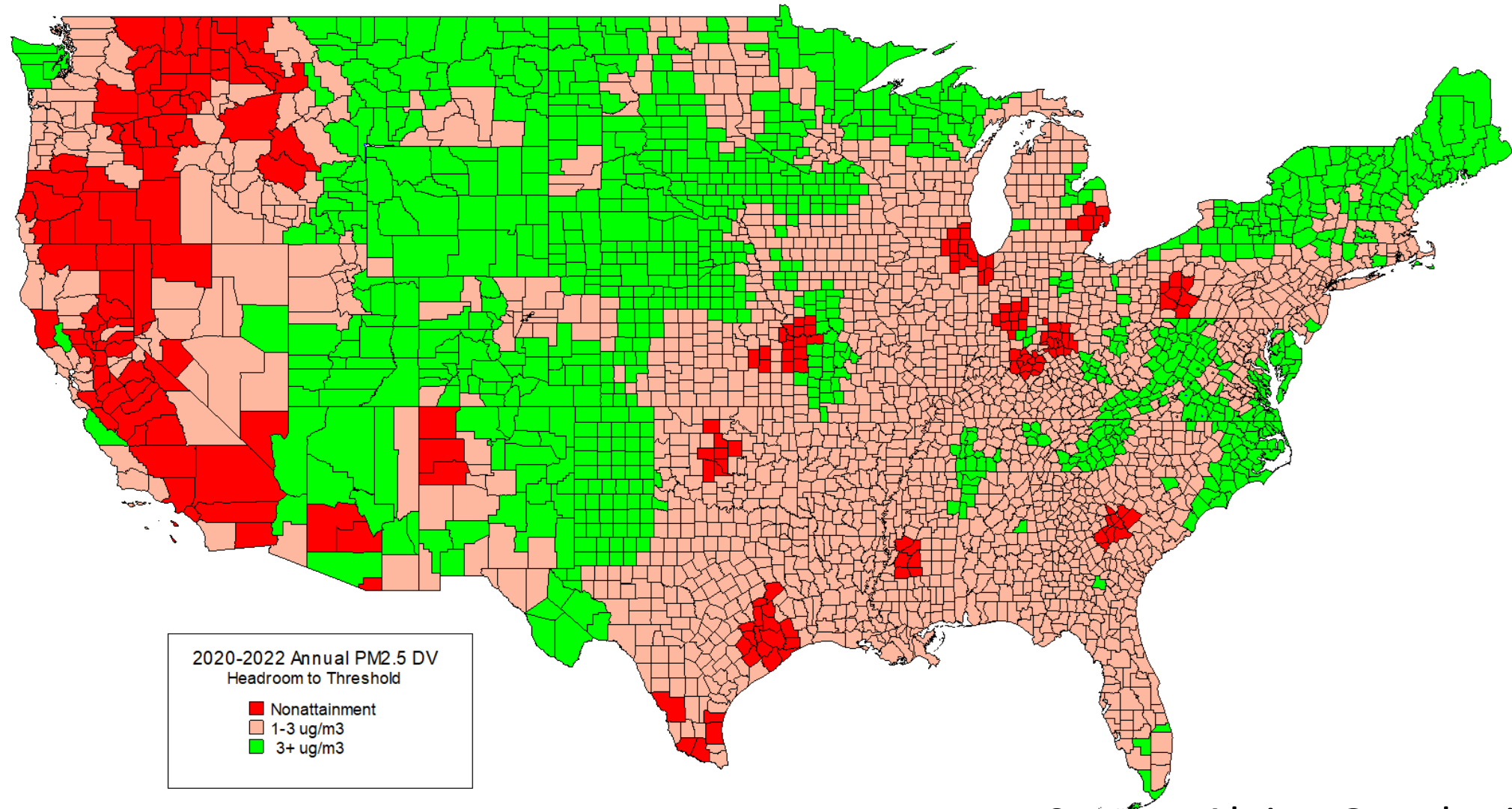


Source: Alpine Geophysics

Non-monitored county values are calculated using inverse distance weighting average of five closest monitored values

Immediate Impact of PM_{2.5} NAAQS at 10.0 µg/m³

Many new or expanded manufacturing projects unachievable in red/pink colored areas

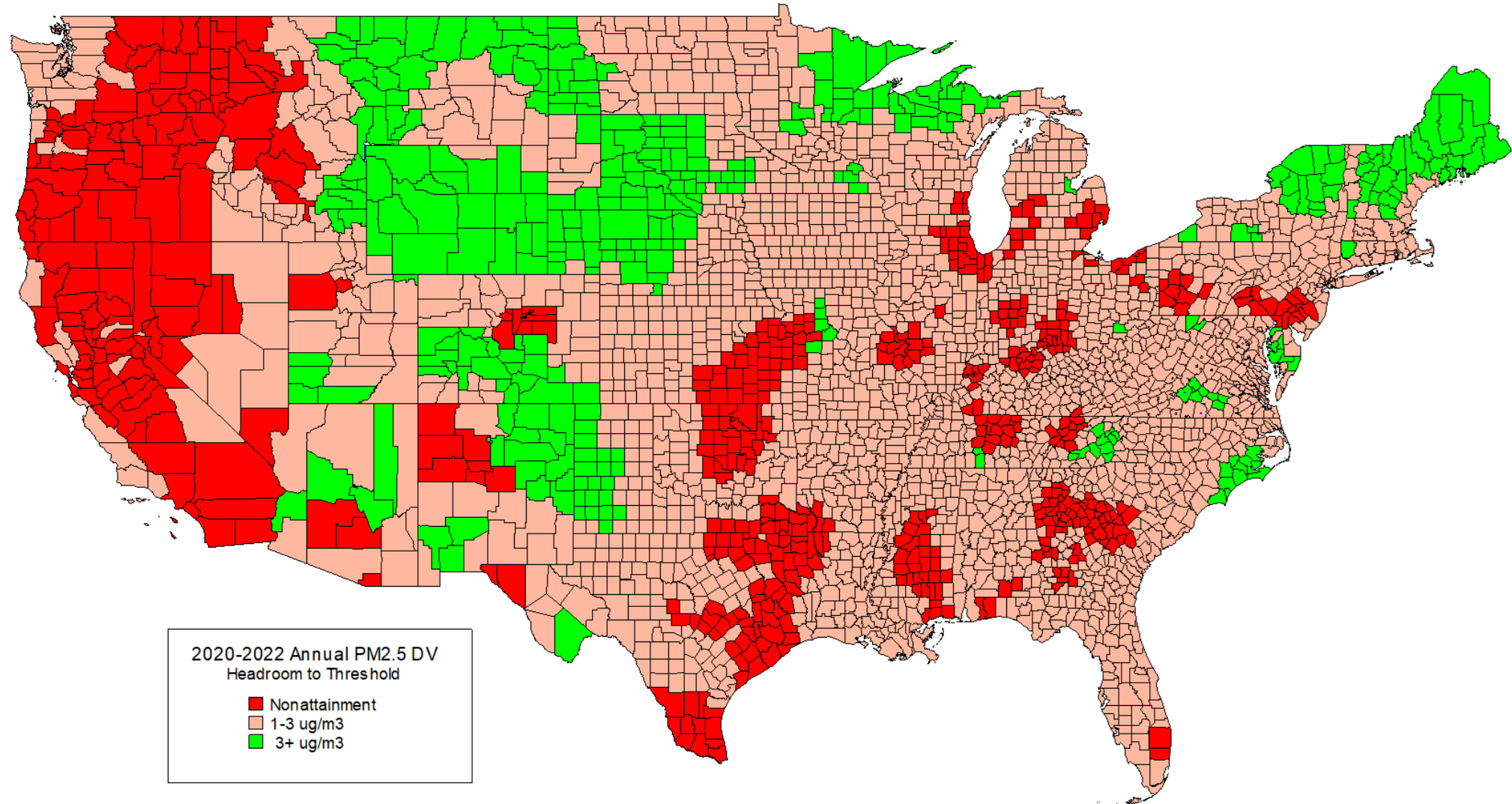


Source: Alpine Geophysics

Non-monitored county values are calculated using inverse distance weighting average of five closest monitored values

Immediate Impact of PM_{2.5} NAAQS at 9.0 µg/m³

Many new or expanded manufacturing projects unachievable in red/pink colored areas

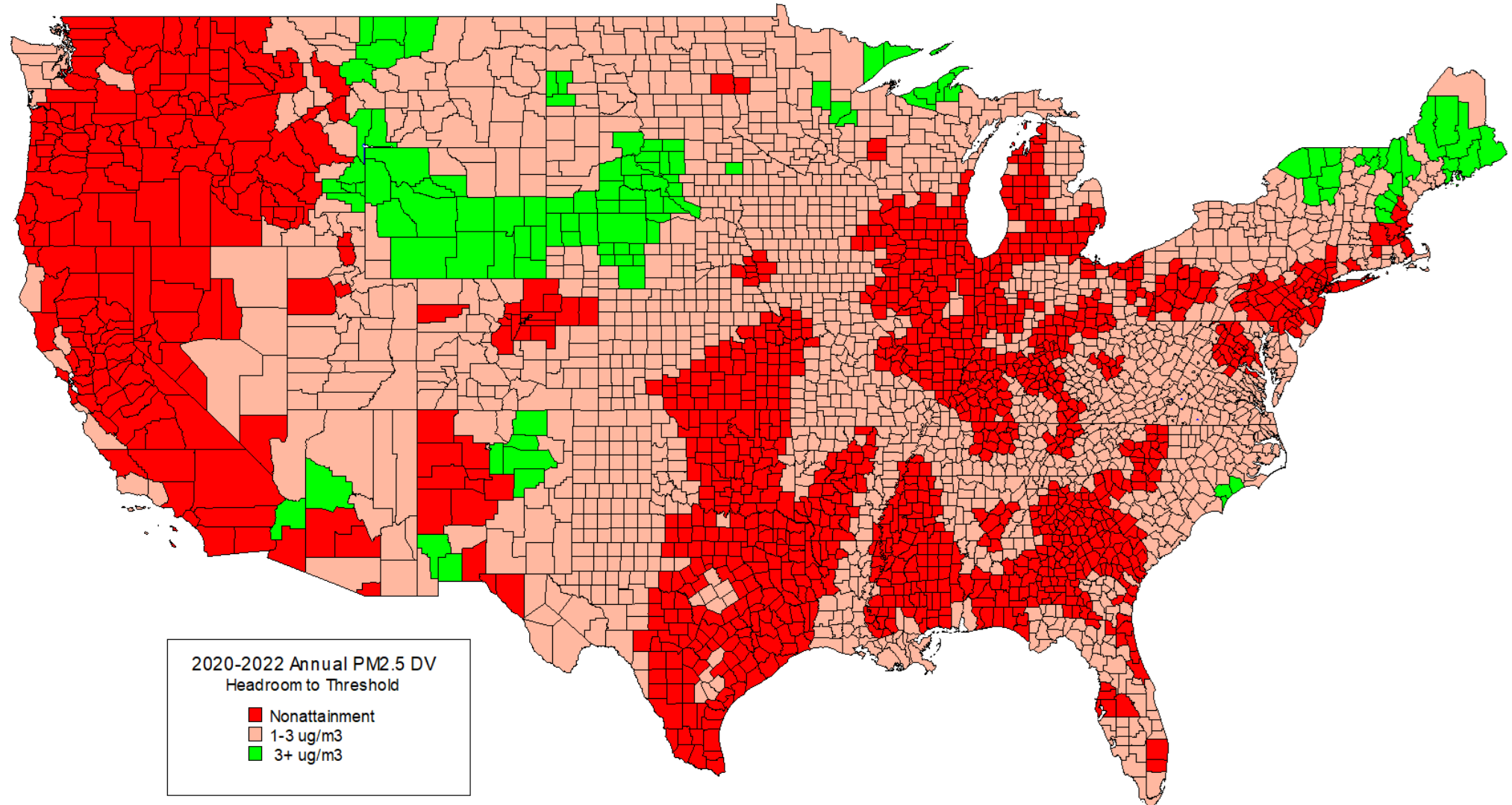


Source: Alpine Geophysics

Non-monitored county values are calculated using inverse distance weighting average of five closest monitored values

Immediate Impact of PM_{2.5} NAAQS at 8.0 µg/m³

Most new or expanded manufacturing projects unachievable in red/pink colored areas



Source: Alpine Geophysics

Non-monitored county values are calculated using inverse distance weighting average of five closest monitored values