Organic PM Research and Related PM2.5 Policy Considerations

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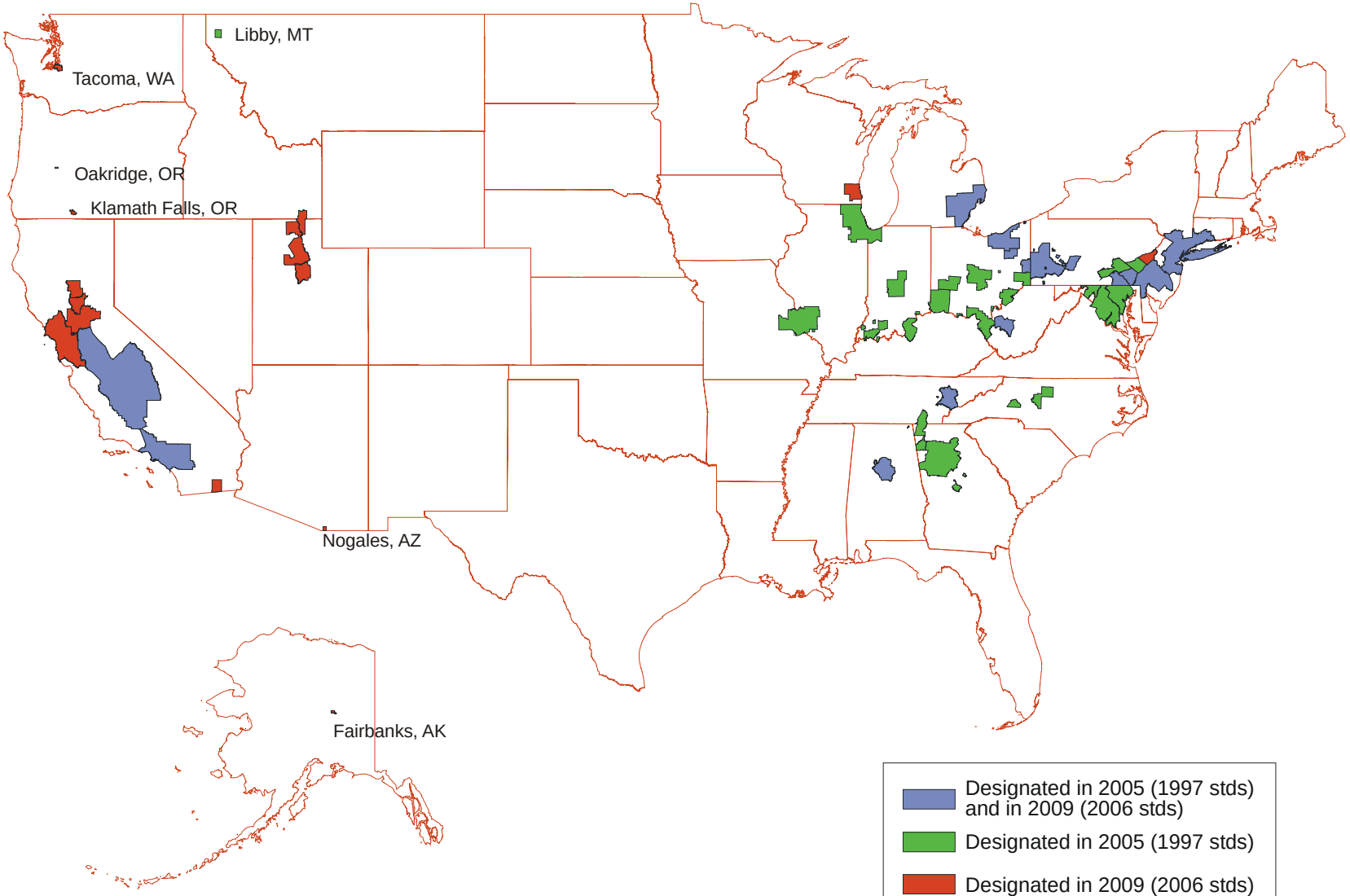
PM2.5 Nonattainment Areas Designated in 2005 and 2009



10/13/2009

Attainment of 1997 PM2.5 Standards

- Plans were due in 2008
- Most areas in east are attaining with SO2 reductions and some localized direct PM reductions
  - LA, SJV, Liberty-Clairton, Birmingham remaining
- Precursor policy in 2007 implementation rule: evaluate controls for SO2, NOx, direct PM
  - Presumption: States not required to address ammonia and VOC
- Organic carbon remains 20-30%+ of PM2.5 mass!

Future Attainment Plans

- 2006 PM2.5 NAAQS
  - Annual: 15 ug/m3; 24-hour: 35 ug/m3
  - Attainment plans due in December 2012

- PM2.5 NAAQS under review – final in Nov. 2011
  - CASAC: annual: 11-13 ug/m3; 24-hr: 30-35 ug/m3
  - Designations in early 2014; SIPs due in early 2017

Policy and Implementation Issues

- Possible conclusions from research . . .
  - Primary organics are too high?
  - Need to better characterize semi-volatiles?
  - Need more source measurements and emission factors?
  - Models include more SOA pathways, but still underestimating organic mass
  - More research to be done!

- Revising the PM2.5 precursor policy
  - From a science perspective, should VOC and ammonia be “presumed in” for purposes of evaluating control measures for attainment plans?
  - Starting with 2012 plans or 2017 plans?

- Inventory and modeling issues
  - How to “reassign” some of POC to semivolatiles?
  - Are techniques available for states to characterize semivolatiles for use in nonattainment area inventories?
  - Are models adequate to estimate air quality improvements due to reductions in VOCs?