EHD'S PERSPECTIVE: CUMULATIVE IMPACTS

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OUTLINE

1. Defining Cumulative Impacts
2. EHD's Role in Rulemaking
3. Air Board's Precedent-setting Effort
4. Examples: Cumulative Impacts Assessments
5. EHD's Regulation Development Process
6. Air Board's Rulemaking Process
7. Recommendations
8. Need for Scientific Evidence

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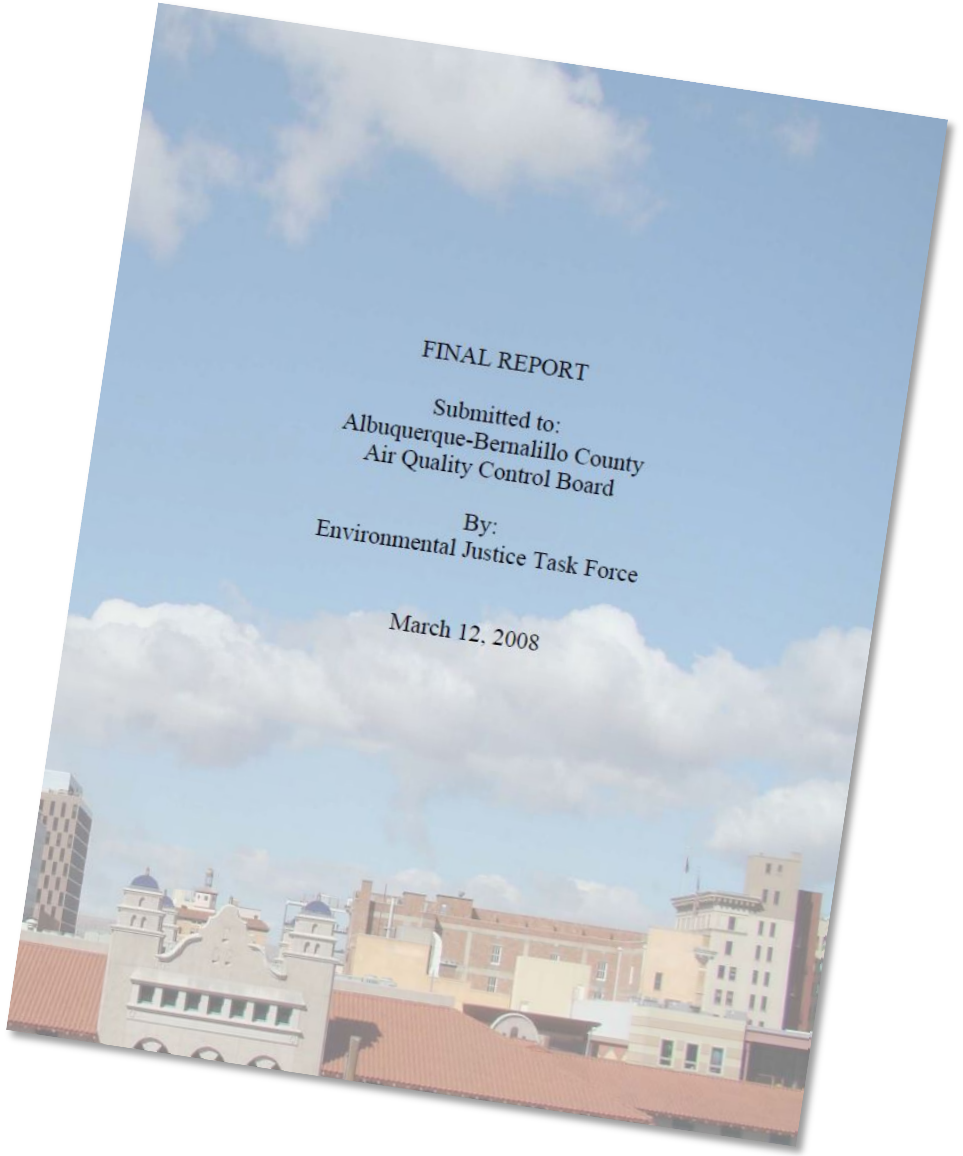
DEFINITION

What are Cumulative Impacts?

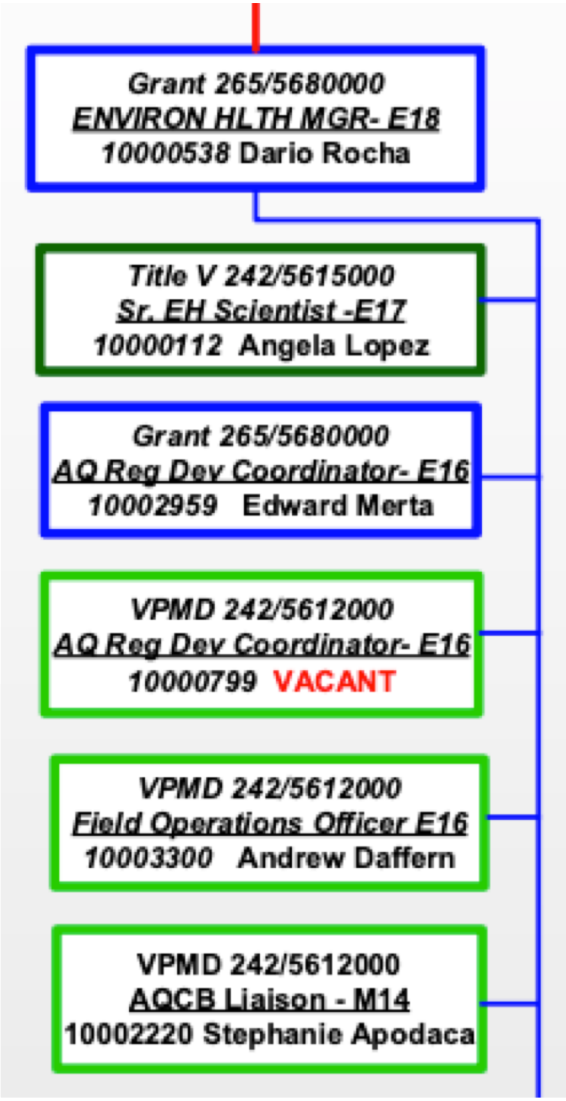
"The *public health and environmental effects* in a geographic area or population group *from all pollution sources and* from *social determinants*, such as income and ethnicity status."

CABQ Environmental Justice Task Force (2008)



EHD'S ROLE

Environmental Health Department: Here to Help



EHD's role is to assist and to support the Board in rulemaking

- Staff with years of experience
- Conduct research and data collection
- Draft regulatory language
- Contacts with NMED, U.S.EPA, etc.

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PRECEDENT

Adopting Cumulative Impacts Regulation by a local Air Board

- This has never been done before
- We haven't seen city/county level examples to use as a model
- Further research is needed
- Rulemaking may take years
- We must be creative to accomplish the Board's goals

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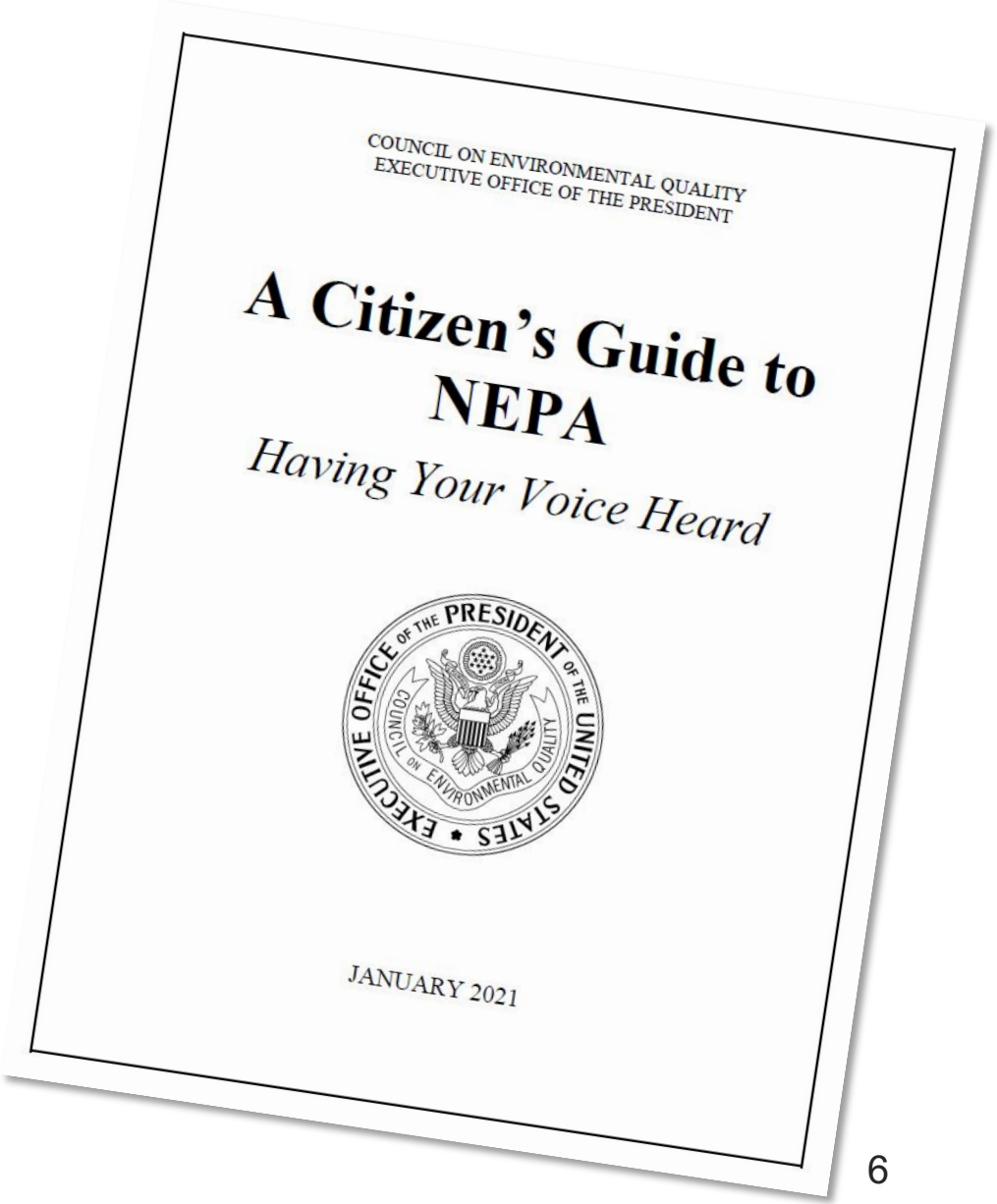
FED EXAMPLE

National Environmental Policy Act (1970)

- Requires agencies to conduct an Environmental Impact Statement (EIS) or environmental assessment on certain proposed projects
- Impacts include ecological, historic, economic, health, etc.
- Cumulative impacts considered within larger environmental review



STATE EXAMPLE

California Environmental Quality Act (1970)

- "…helps ensure that many small projects are not considered separately, only to overwhelm a community when taken as a whole."
- Requires consideration of cumulative impacts as part of an Environmental Impact Report (EIR)
- Cumulative impacts considered within larger environmental review

CITY EXAMPLE

City of Newark, New Jersey Ordinance

- Requires development proposals to include an Environmental Review Checklist
- Must consider air pollution, stormwater, water & energy use, etc.
- Collaboration between:
  - Newark Central Planning Board;
  - Zoning Board of Adjustment;
  - Newark Division of City Planning;
  - Newark Environmental Commission; and
  - Sustainability; Engineering; and other departments

PLANNING IDO

- **Cumulative Impacts**
  - Transportation & industrial uses
    - Within ½ mile of railroad or ¼ mile of Sawmill spur
    - Within 660 feet of same uses
    - Within ¼ mile of Residential zone or residential use in Mixed-use zone
  - Required mitigation
  - Cumulative impacts analysis
  - Site Plan – EPC review

Section 4-3

Section 5-2

Section 6-4(H)

Section 6-6(J)

Cumulative Impacts
The environmental and community health impacts that result from the incremental effects of industrial and certain commercial developments when considered in conjunction with other past and present development.

Section 7-1

MODELING

Cumulative Impacts in Permitting Requirements: Air Dispersion Modeling

Meteorology
- Wind speed
- Wind direction
- Temperature

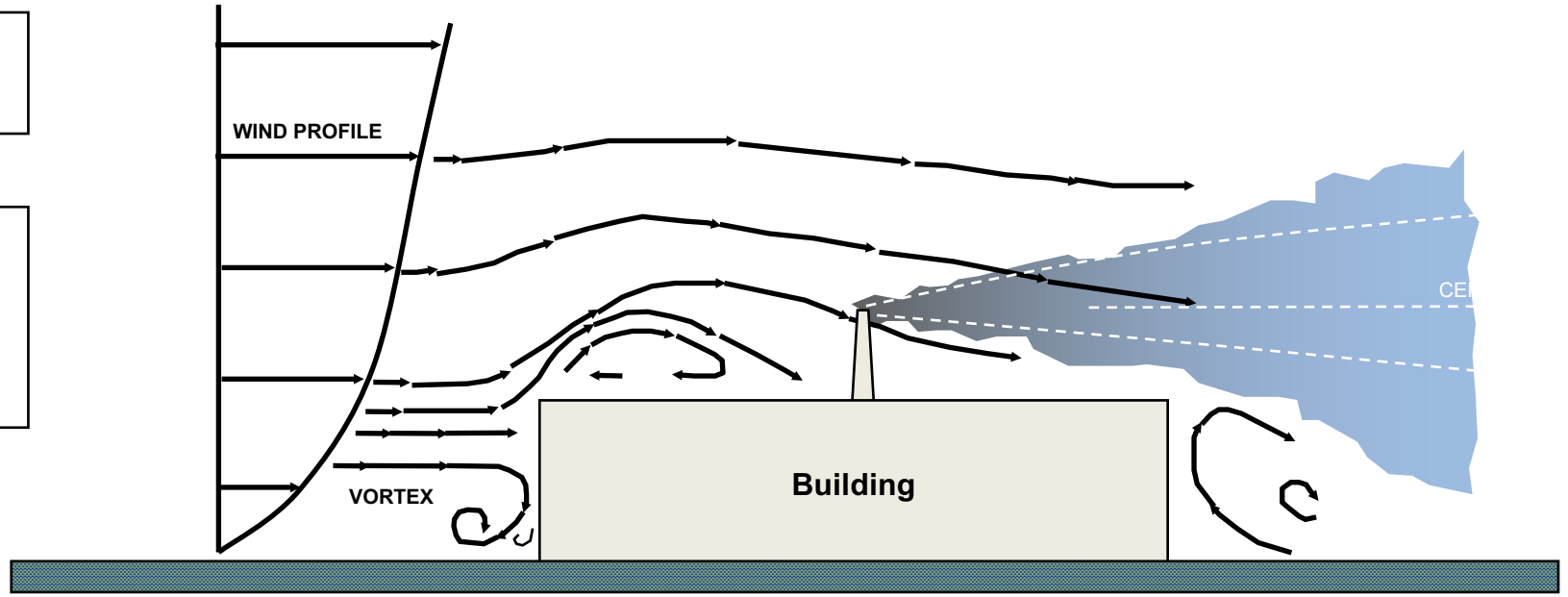
Terrain & Land Use
- Rural or urban
- Elevations

Emissions
- Rates
- Hrs of operation

Sources
- Source type
- Parameters

Downwash
- Buildings

Gravitational Settling
- Particle Size
- Density



REG DEV

EHD's Regulation Development Process

1. **Preliminary technical/scientific/legal research**
   - Identify problem; potential solutions
   - Assess legal authority
2. **Consult with U.S.EPA and NMED**
   - Receive technical advice on problem; potential solutions
   - Identify potential regulatory issues
   - Ensure compatibility with federal priorities; funding requirements
3. **Prepare internal draft documents**
   - Draft white paper; documents for EPA approval; etc.
4. **Conduct EPA review, if necessary**
   - Revise documents based on EPA feedback

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REG DEV

EHD's Reg Dev Process (con't)

5. Conduct stakeholder outreach

- Identify stakeholders
- Draft communications, including translations
- Provide notice; seek feedback
- Hold in person or virtual meeting to allow for verbal feedback
- Compile comments received, draft and send responses to stakeholders.
- Revise draft documents based on stakeholder input
- Decide whether additional comment period needed; repeat as necessary: this can go on for months or years

6. Prepare to file petition for rulemaking with the Air Board

- Finalize documents; draft petition to Air Board; draft presentation
- Draft hearing documents; including notice of intent, testimony, and exhibits

7. File rulemaking petition with the Air Board

RULEMAKING

Air Quality Control Board
Rulemaking Process

1. Petition for rulemaking filed
2. Board has 60 days to determine whether to hold a public hearing
   - If the Board does not hold a hearing; the rulemaking process is over
3. Hearing officer appointed
4. 30 day notice for public hearing provided
5. Entry of appearances filed
6. Motions made
7. Hearing held
8. Board deliberates
9. Quorum of Board decides within 60 days

QUESTIONS

Questions to consider:

1. Can the Air Board regulate all pollution sources, as per our cumulative impacts definition?

2. Is there scientific evidence to justify developing a cumulative impacts regulation?

RECOMMENDATIONS

EHD's Recommendations

1. **Explore expanding scope of cumulative impacts in air dispersion modeling**

2. **Explore establishing scientific evidence as basis for cumulative impacts regulation**
   - Buy small monitors in 2022
   - Set them up in neighborhoods, test them
   - Gather data for 1-2 years
   - Analyze data; identify hot spots
   - Monitor hot spots with EPA-approved device
   - Analyze data; conduct environmental health assessment

3. **Based on evidence, start drafting cumulative impacts regulation**

SCIENTIFIC EVIDENCE

Need for Scientific Evidence as the Basis of Rulemaking

74-2-2 – Definition of air pollution:

…“air pollution” means the emission, except emission that occurs in nature, into the outdoor atmosphere of one or more air contaminants in quantities and of a duration that may with reasonable probability injure human health or plant life or as may unreasonably interfere with the public welfare, visibility or the unreasonable use of property.

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SCIENTIFIC EVIDENCE

Need for Scientific Evidence as the Basis of Rulemaking

What does "<u>reasonable probability</u>" and "<u>unreasonably interfere</u>" mean?

- While the Board can adopt regulations to "prevent or abate" air pollution, such regulations must adhere to an objective standard of causation.
- This means that there has to be <u>scientific evidence</u> to show a specific air pollutant is likely to cause injury to human health, animal or plant life or unreasonably interferes with the public welfare, visibility or the reasonable use of property.
  - This type of evidence is data driven
  - Cannot be speculative or conjecture
  - Takes time to gather and prove.

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SCIENTIFIC EVIDENCE

Need for Scientific Evidence as the Basis of Rulemaking

A cumulative impacts regulation without scientific evidence to show an objective standard of causation would likely be overturned by a court as arbitrary, capricious and contrary to law.

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QUESTIONS?

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REFERENCES

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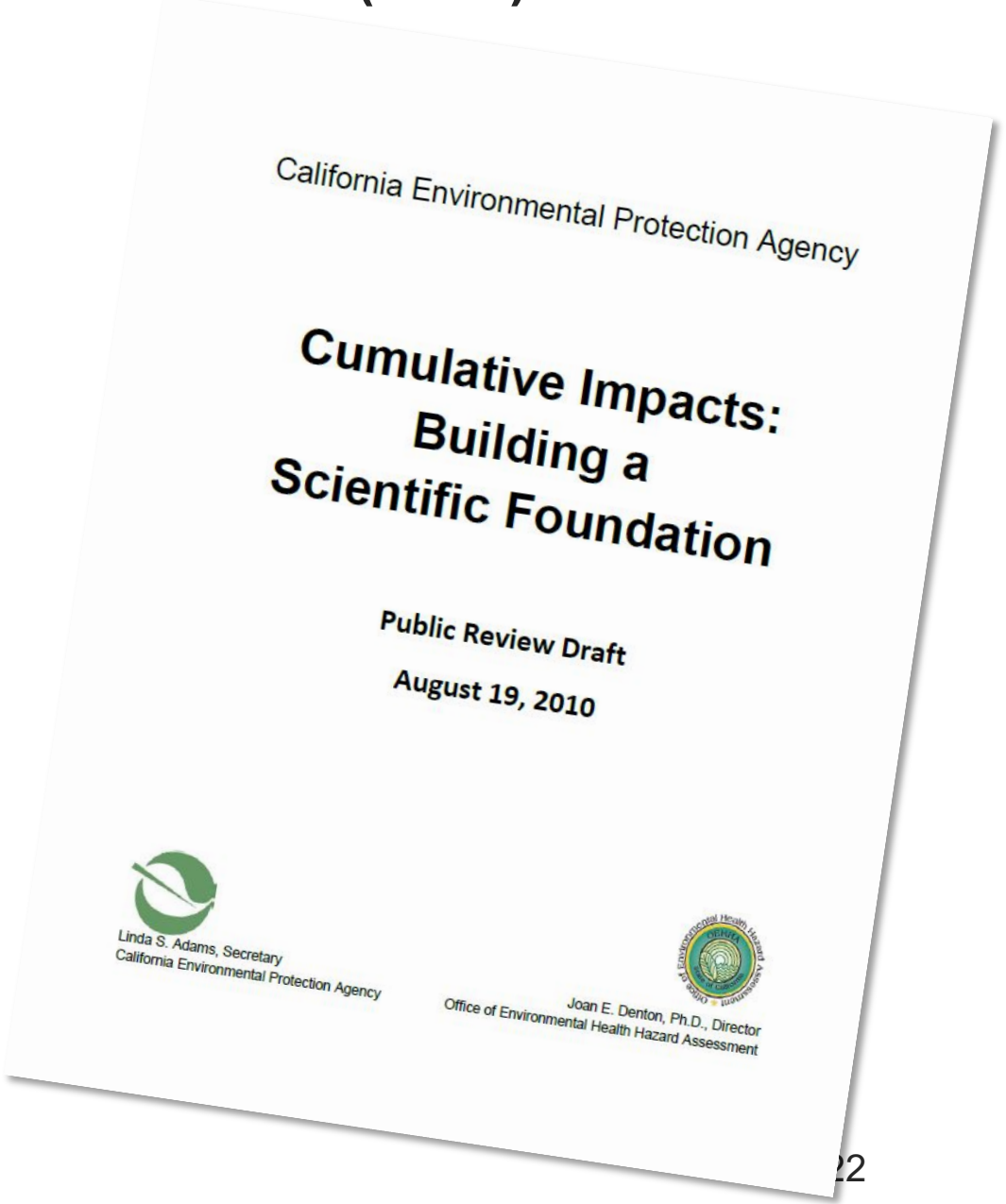
EPA GUIDANCE

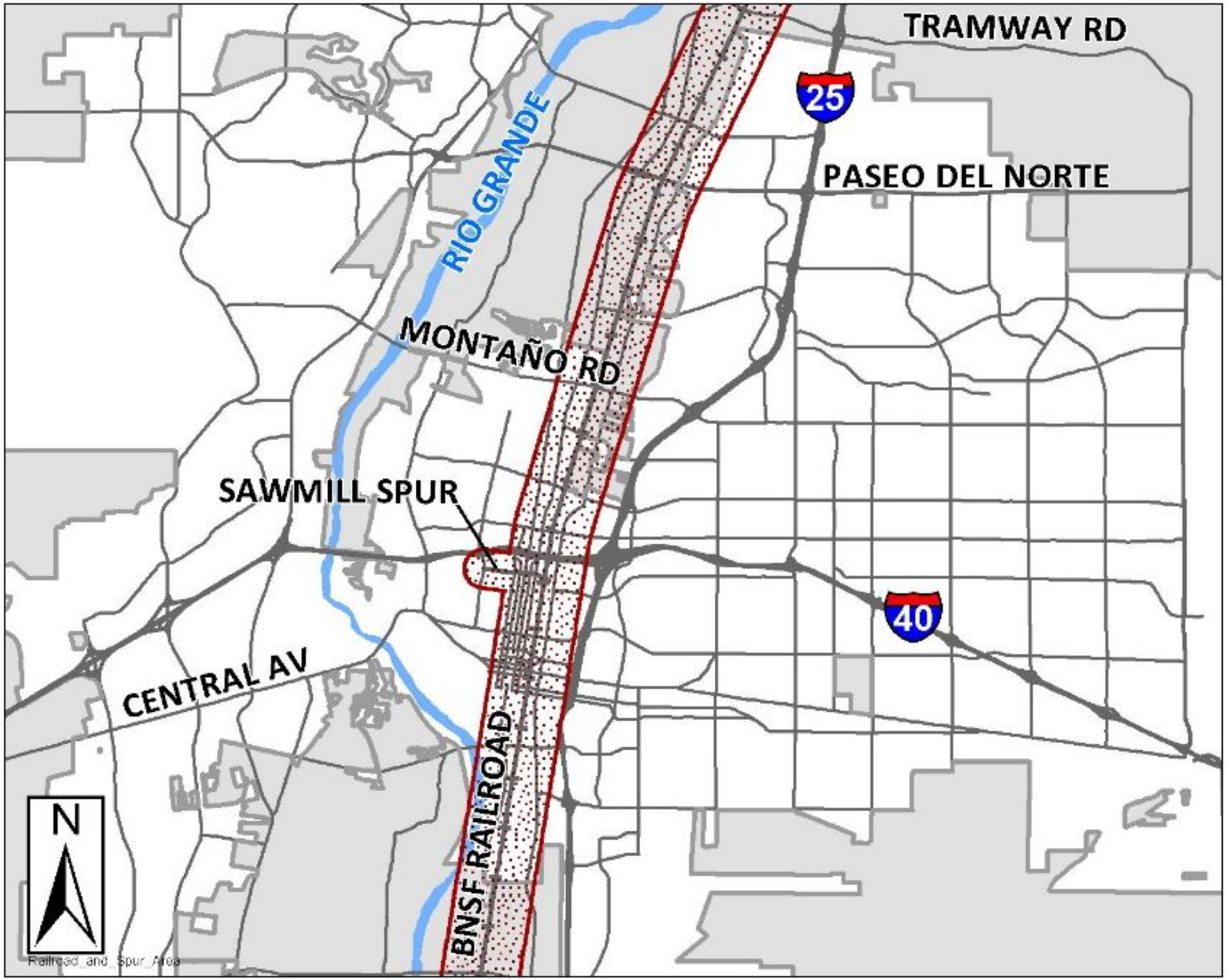
Cumulative Impacts Guidance (2010)

Recommendations:

- Prepare detailed scientific guidelines for the screening methodology analysis of cumulative impacts
- Describe type of data available for cumulative impacts analysis and how to incorporate
- Designed and developed to assist specific programs and to establish criteria to help identify the analytical and data needs for those situations where cumulative impacts may be an issue



IDO MAP


TRAMWAY RD
25
PASEO DEL NORTE
RIO GRANDE
MONTAÑO RD
SAWMILL SPUR
40
CENTRAL AV
BNSF RAILROAD
N
Railroad and Spur Area

MONITORS

Small Air Quality Sensors

"Low-cost" air quality sensors provide a means for environmental groups and individuals to independently evaluate air quality

PROS:

- Show a general trend in air pollution and alert you to the kinds of activities that create pollution in your neighborhood
- Can help identify hot spots; identify areas for further monitoring
- Complement conventional monitoring networks
- Raise awareness in local communities

CONS:

- Data generated by the small sensors is not comparable to the National Ambient Air Quality Standards and therefore, **cannot be used for regulation development.**
- Sensors have technical limitations that can affect their reliability and accuracy