

# **Minnesota Environmental Initiative**

## **Environmental Contaminants: Assessing the Risk & Shaping Public Health Policy**

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Minnesota Pollution Control Agency

## Risk Analysis

## Historical Focus

## New Focus

New/Expanding Facility

- EAWs
- Facility
- "Research" feel
- Hard to quantify benefits

### **AERA**

- EAWs
- Facility
- Standardize
- Include non-quantifiable

"System Risk"

Little or none

### **State-wide cumulative risk analysis:**

- Important chemicals
- Individual facilities
- Sector
- Geographic Area
- Benefit

## Air Emissions Risk Analysis (AERA) Process

- One facility at a time
- Doesn't provide context – what are emissions being added to?
- Typically looks at *new* projects in permitting process
- *Point sources only* (not mobile or area sources)
- Doesn't include all exposure pathways (fish consumption not included)

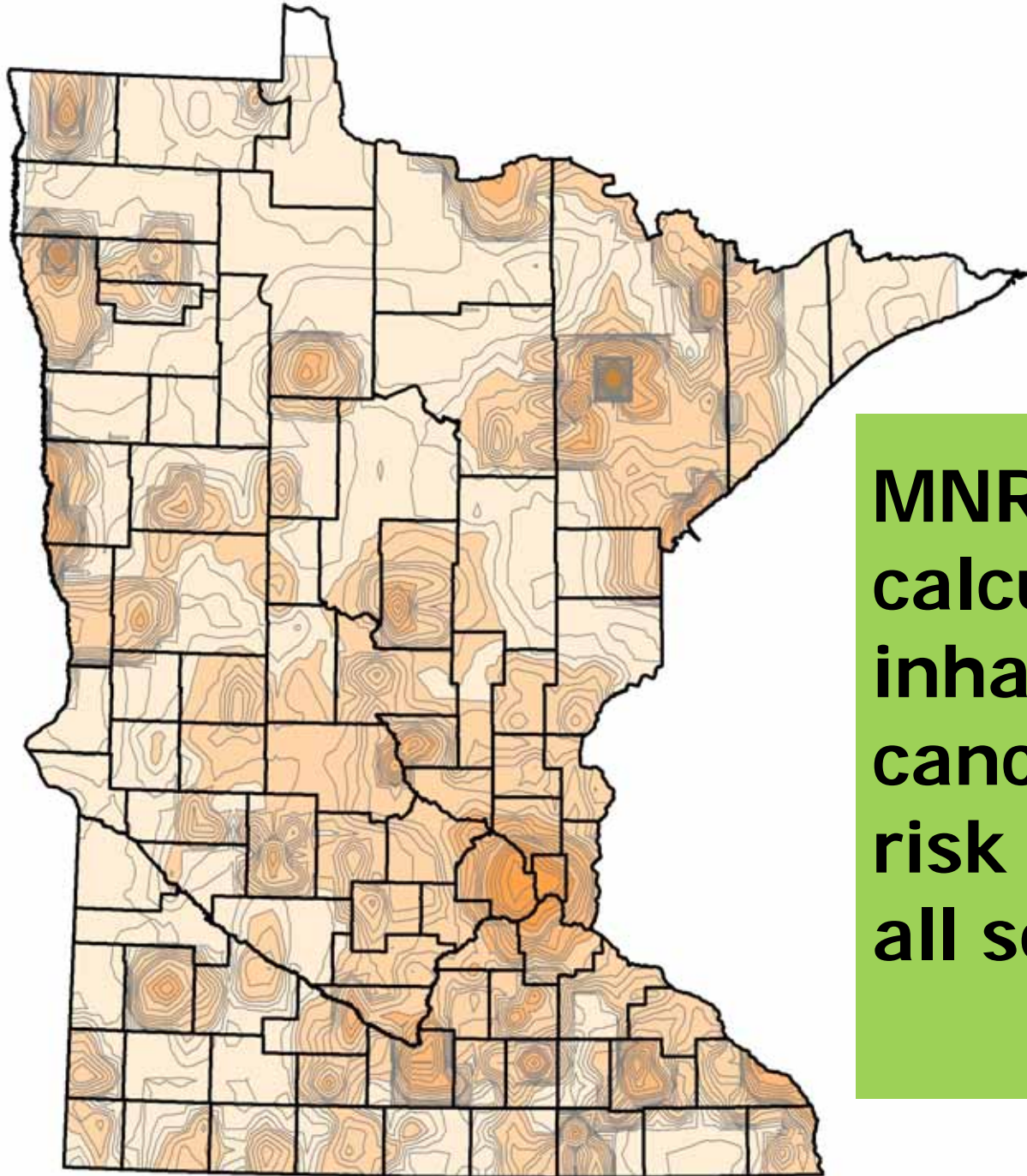
# MNRiskS: Minnesota Risk Screening

- ***State-wide & Cumulative:***
  - Models ***mobile, point and area sources***
  - Includes ***all chemicals and sources*** in MN Emissions Inventory
  - Multimedia/multipathway

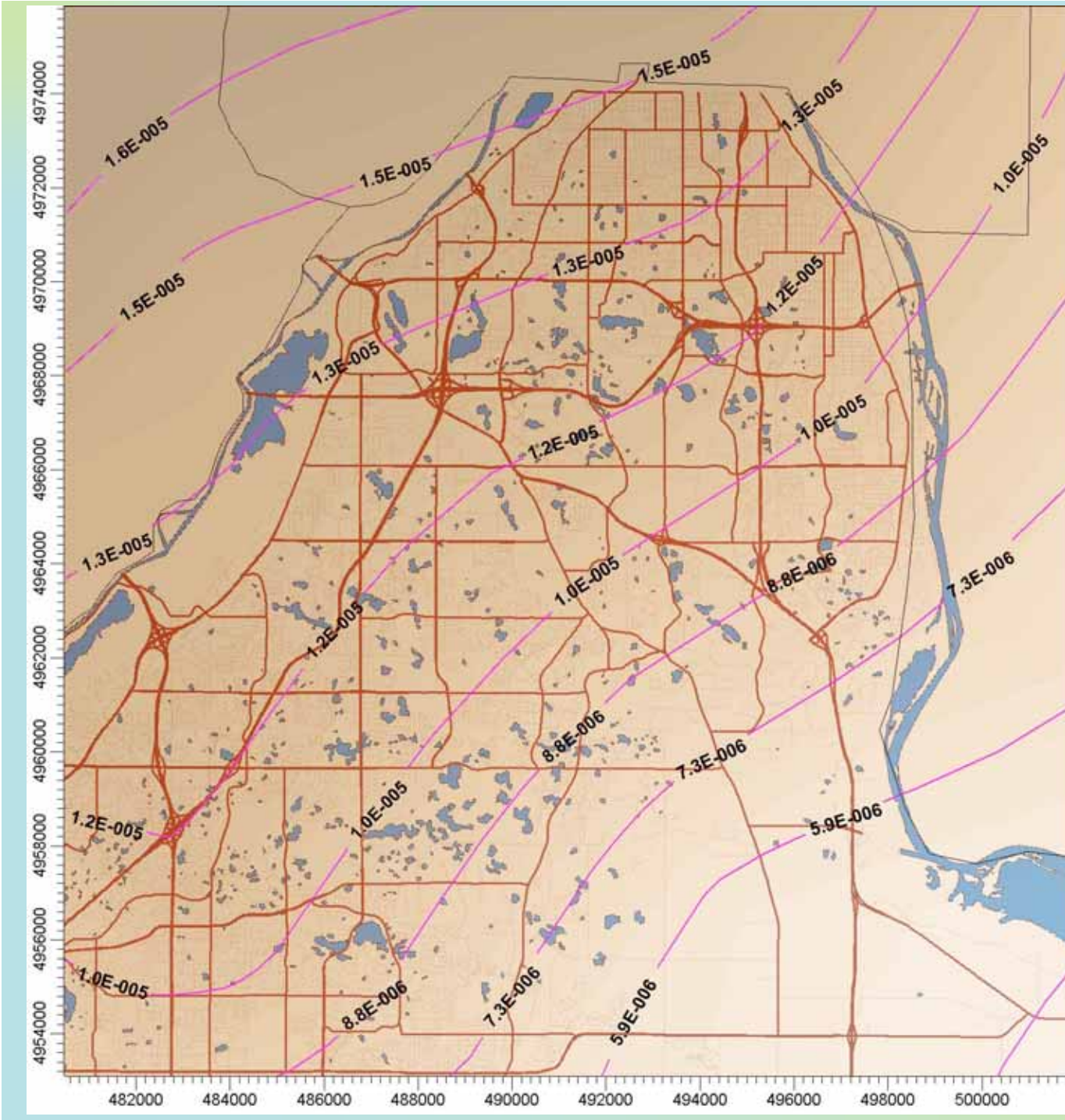
# Why do MNRiskS?

## National efforts show:

- *Non point sources important (traffic & area sources)*
- National Air Toxics Assessment doesn't focus well to local level
- Consistent with EPA Air Toxics Program's need for community risk assessment methods



**MNRisks  
calculated  
inhalation  
cancer  
risk from  
all sources**



**MNRisks  
calculated  
inhalation  
cancer risk  
from all  
sources  
-  
Dakota  
County**

# Why do MNRiskS?

- Public concerned about background sources and pollutants
- Supreme Court mandate to evaluate “cumulative effects”
- Conduct risk-based prioritizations

# Why do MNRiskS?

- Test results of actions or policy options
- Help inform cities/counties in zoning decisions
- Complement monitoring programs
- Elucidate where better data is needed (e.g., emissions, monitoring data)

# **Risk Communication Challenge**

- Context
- Involuntary vs. Voluntary (Lifestyle)