

# **Environmental Justice in West Eugene**

**Race, Poverty, Disability and  
Exposure to Hazardous Air  
Pollutants**

**Presented by Oregon Toxics Alliance**

**([www.oregontoxics.org](http://www.oregontoxics.org))**

**May 12, 2009**

# What is Environmental Justice?

*A definition:*

**Inequitable environmental burdens borne by groups such as people of color, alter-abled, and economically disadvantaged.**

# Environmental Regulations and Fairness

- Environmental Justice (EJ) is a state and national priority.
- Governor Kulongoski formed the Oregon Environmental Justice Task Force in 2008.
- The Oregon DEQ and EPA Region 10 have EJ coordinators.

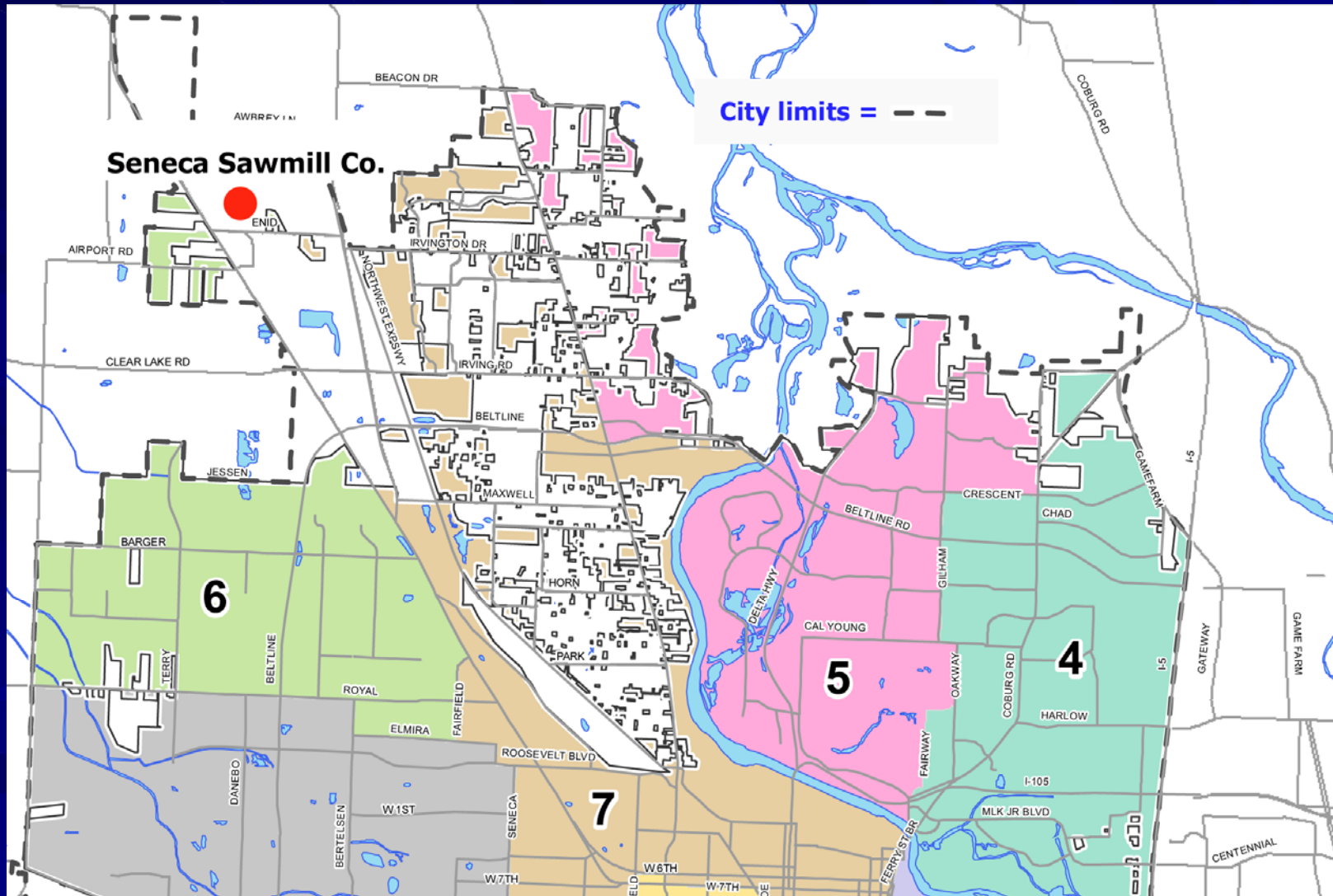
# What contributes to Environmental Injustices?

- Disproportionate pollution of land, water, and air;
- Higher rates of disease;
- Inadequate health insurance and far higher rates
- Government policies and actions that fail to identify and address the needs of people with less resources and political access.

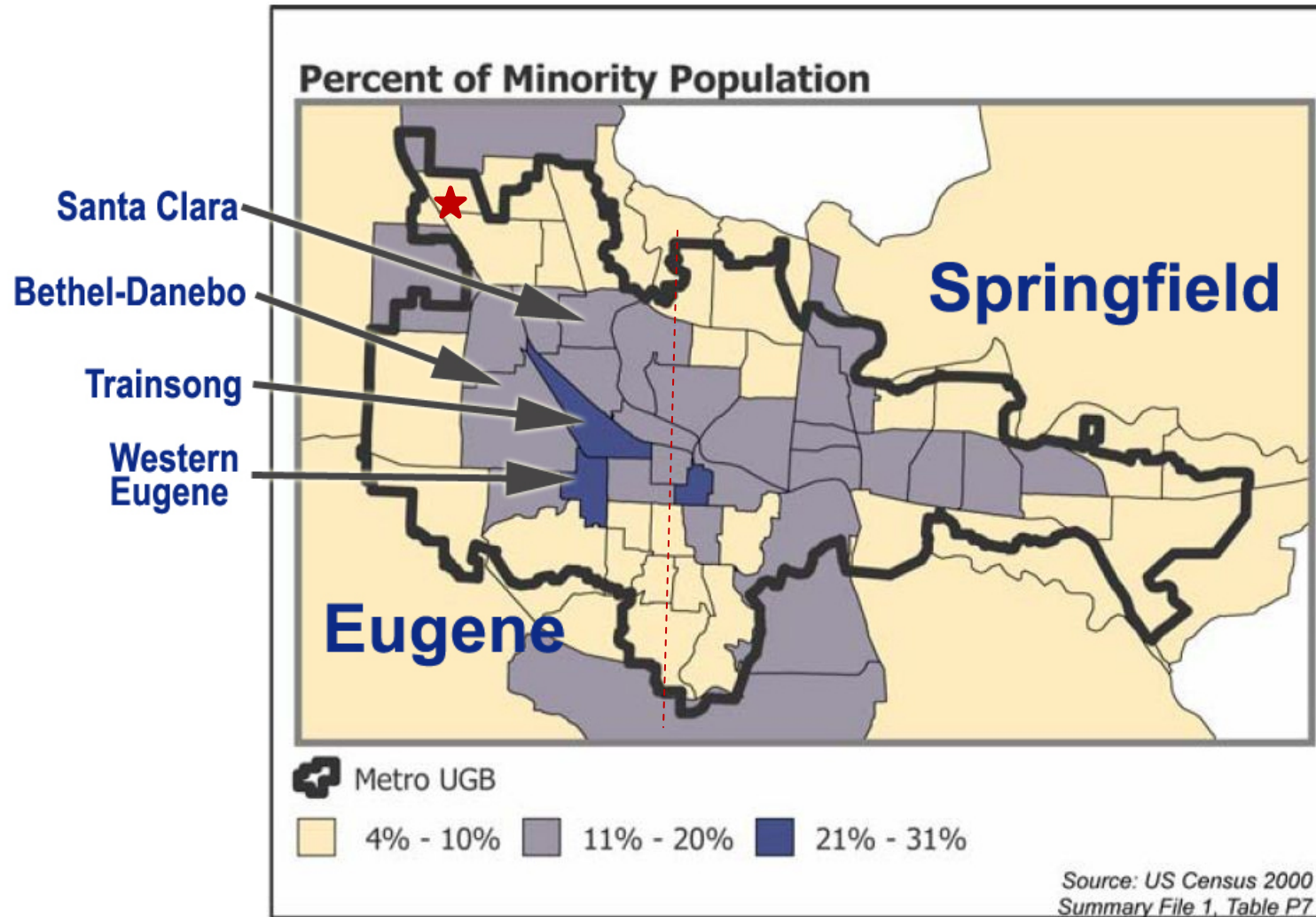
# West Eugene

- The residents of West Eugene live in close proximity to a number of heavy industrial sites and Super Fund Sites. Examples:
  - Union Pacific Rail Yard
  - JH Baxter
  - Flakeboard America
  - Veneer Technologies
  - Forrest Paints
  - Forbo Adhesives

# Location in West Eugene



# Minority Populations in Trainsong, Bethel, Santa Clara



# Latino Community Population

The Latino community in 2000 was:

- 5% of Eugene's total population
- 11% - 31% of the target area's population\*

Projections for 2009 are:

- 14% of Eugene's total population
- (est.) 20- 38% of the target area's population\*

• *target area* is within a 5 miles radius of Seneca

Source: *Eugene/Springfield Consolidated Plan 2005*

# Latino Community Poverty

- Eugene's Latino community poverty level in the targeted area\* is **26.7%**, compared with 17% of the total Eugene population.

## **HUD Census 2000 Income Limits**

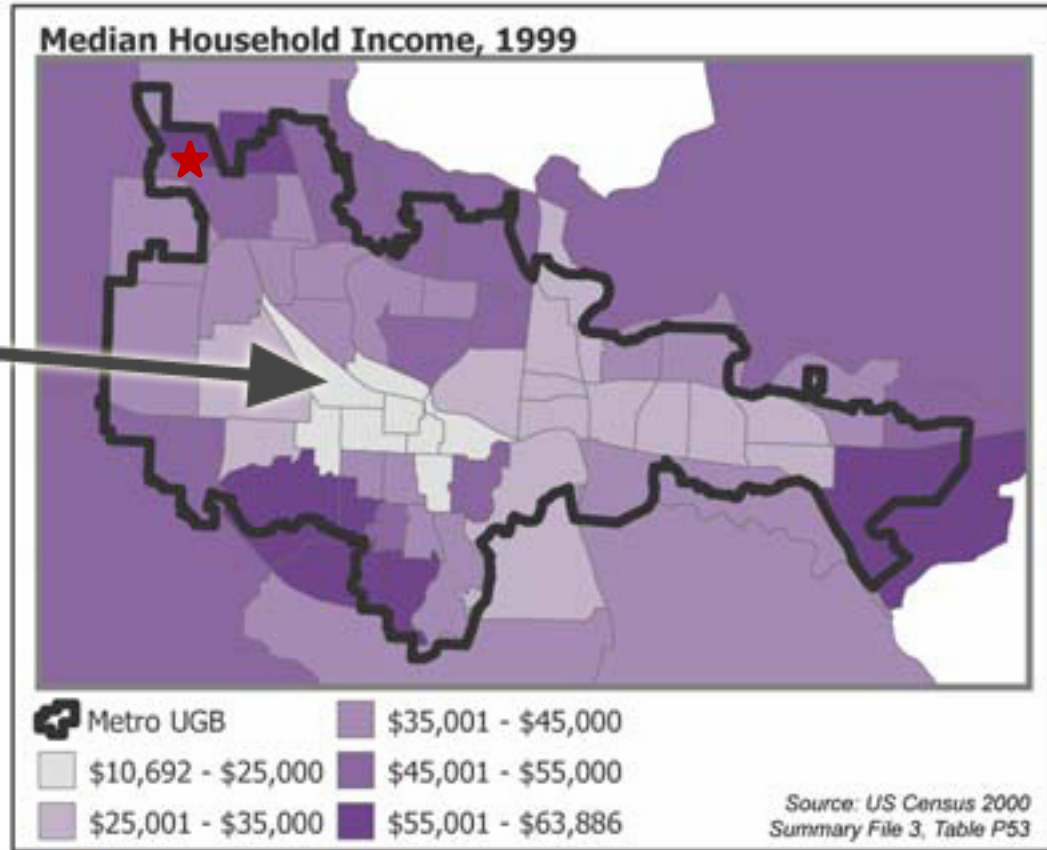
Very Low- \$13,550 Low-Moderate- \$22,550

• *target area* is within a 5 miles radius of Seneca

Source: *Eugene/Springfield Consolidated Plan 2005*

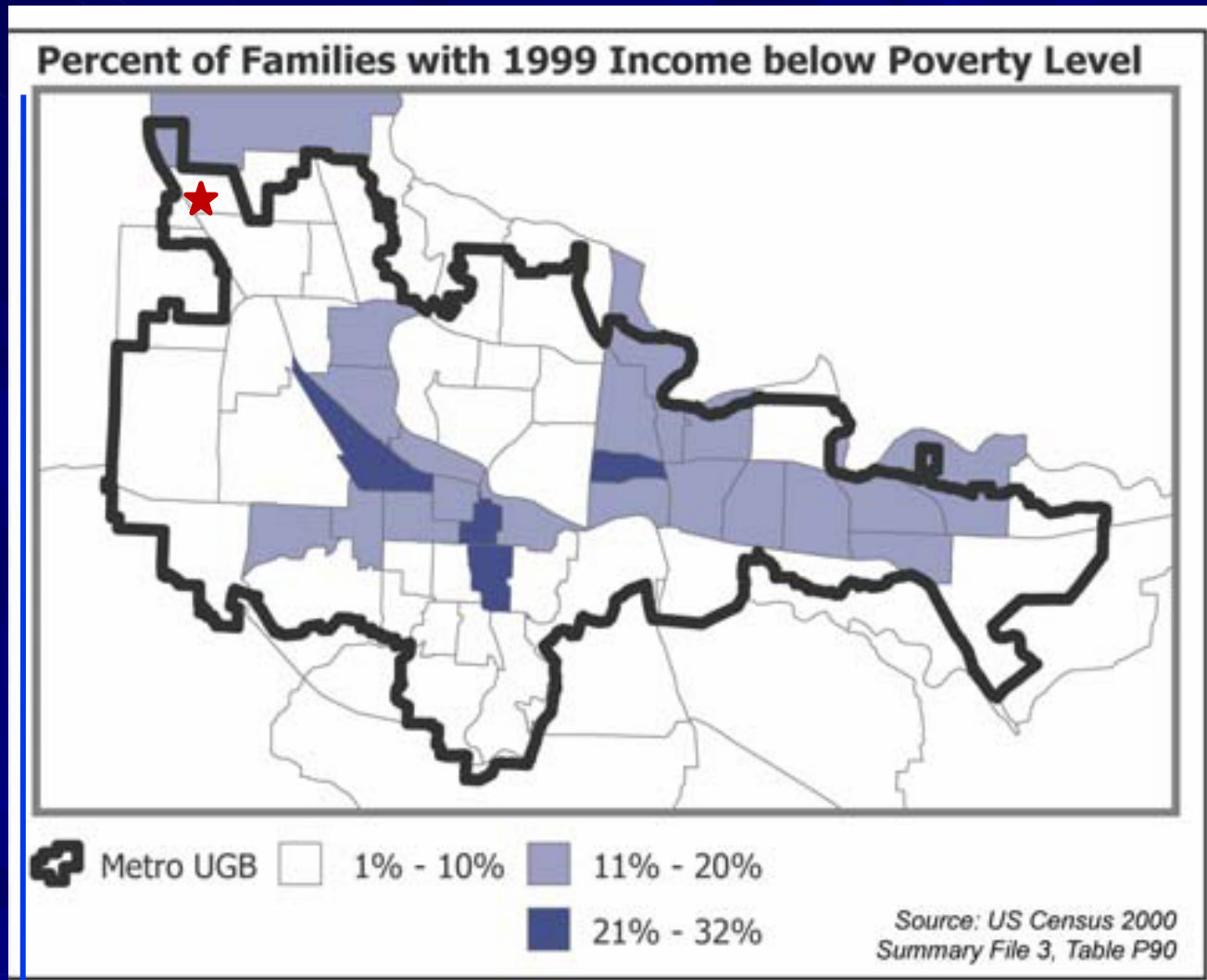
# Poverty in Eugene - Springfield

**Trainsong**



Source: *Eugene/Springfield Consolidated Plan 2005*

# Concentration of Residents Below \$13,550



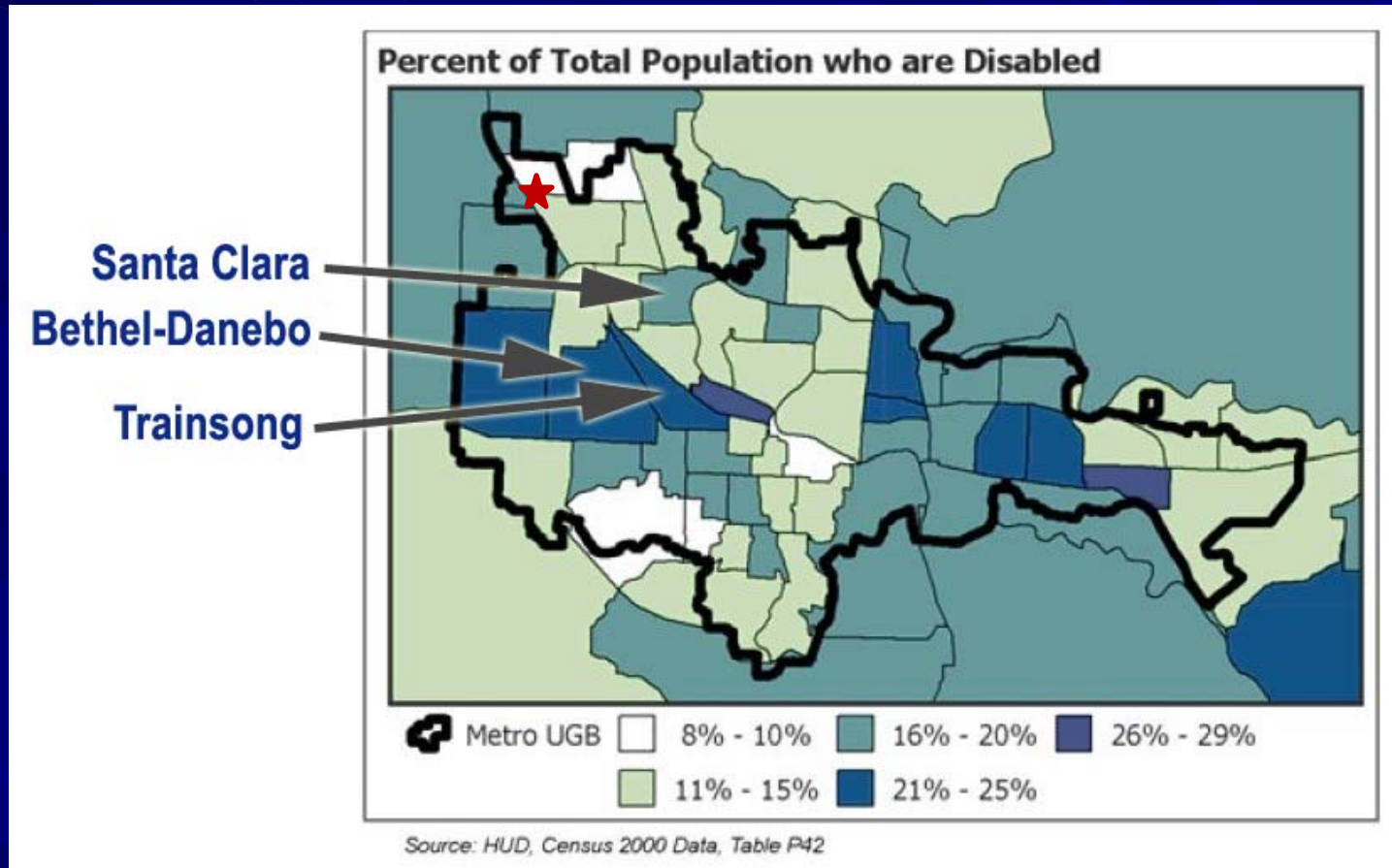
Source: *Eugene/Springfield Consolidated Plan 2005*

# Trainsong Statistics

- 36% of the population is at poverty level
- 16% of the population is Hispanic

Source: DHS SHINE Report 2007

# Eugene's Disabled Population



Bethel-Danebo, Santa Clara-River Road, Trainsong and Jefferson neighborhoods have higher percentages of disabled people and are adjacent to 17 industrial facilities listed by the EPA as polluters.

# Exposure to Air Toxins in West Eugene

There is disproportional exposure for the people living in West Eugene to:

- **Acetaldehyde**
- **Formaldehyde**
- **Toluene**
- **Styrene**
- **Nitrogen Oxide**

# Acetaldehyde/ethanol - Tons/year

Eugene 2007 Toxics Database

**Proposed Seneca 1.28 = Seneca**

- **Forbo Adhesives** 0.001 = West Eugene Source
- **States Industries** 0.417 = West Eugene Source

# Acetaldehyde

The Department of Health and Human Services has determined that...

Acetaldehyde can reasonably be considered a carcinogen.

# Formaldehyde - Tons/Year



= All West Eugene Locations

- Emerald Forest Products 8.2
- Flakeboard 32.3
- **Proposed Seneca 1.7**
- Veneer Tech 1.26
- States Industries 0.4
- Western Structures 0.05
- Lanz Cabinet 0.008
- Whittier Wood 0.0025
- Forrest Paint 0.0005

# Formaldehyde

The Department of Health and Human Services has determined that...

“...it is reasonable to assume formaldehyde causes cancer.”

# Toluene - Tons/Year



= West Eugene  
Location

- **Forrest Paint 4.034**
- **Bulk Handling Systems 2.708**
- **Proposed Seneca 1.42**
- **King Retail Solutions 1.266**
- **Lanz Cabinets 0.868**
- **Henry Manufacturing 0.2815**
- **Atlas Cylinder 0.2815**
- **Western Pneumatics 0.232**
- **Whittier Wood 0.1845**
- **Griffith Rubber Mills 0.171**
- **Willamette Valley Company #2 0.1105**

# Toluene

The Department of Health and Human Services has determined that...

**Toluene is a nerve toxin.**

# Naphthalene - Tons/Year



= West Eugene  
Location

• **Proposed Seneca 0.15**

■ Newood Display Fixtures 0.03

■ Forrest Paint 0.002

■ Lanz Cabinets 0.001

# Napthlene

The Department of Health and Human Services has determined that...

“...it is reasonable to assume  
Napthlene causes cancer.”

# Styrene - Tons/Year



= West Eugene  
Location

- **Proposed Seneca 2.94**

- **Forrest Paint 0.004**

# Styrene

The International Agency for  
Research on Cancer (IARC)  
has determined that...

“Styrene is a possible human  
carcinogen.”

# What are the criteria air pollutants?

- Nitrogen Oxide
- Carbon Monoxide
- Sulfur Dioxide
- Particulate Matter
- Volatile Organic Compounds

# Putting it in Perspective

**If Seneca BioMass is constructed in West Eugene as proposed, the power plant would be:**

- 2<sup>nd</sup> largest point source of NO<sub>x</sub> in Eugene...
- 2<sup>nd</sup> highest point source of CO in Eugene...
- 2<sup>nd</sup> highest point source of SO<sub>x</sub> in Eugene

**AND**

- 4<sup>th</sup> largest point source of NO<sub>x</sub> in Lane Co.
- 7<sup>th</sup> largest point source of CO in Lane County.

# NO<sub>x</sub> – Nitrogen Oxides

- Small particles can penetrate deeply into sensitive lung tissue and cause damage...
- Causes respiratory problems and aggravates heart disease...
- Causes premature death...
- Is a main component of ground-level ozone and contributes to global warming.

# CO – Carbon Monoxide

- Is an odorless, toxic gas...
- Causes toxicity of the nervous system and heart...
- Can also have severe effects on the fetus of pregnant women...
- OSHA limits long-term workplace exposure levels.

# SO<sub>2</sub> - Sulfur Dioxide

- Associated with increased respiratory symptoms and disease...
- Causes difficulty in breathing...
- Can contribute to premature death.

# Particulate Matter

Year-round exposure to particle pollution has also been linked to:

- increased hospitalization for asthma attacks in children;
- stunted lung function growth in children and teenagers;
- significant damage to the small airways of the lungs;
- increased risk of heart attacks and strokes in older women;
- increased risk of dying from lung cancer; and
- greater risk of death from cardiovascular disease.

Data supplied by the Oregon Chapter of  
the American Lung Association

# Is the Seneca Biomass Plant Really “Green Energy?”

Seneca consultants state that the plant will emit *each and every year*:

**212,281 metric tons/year of carbon dioxide, a potent greenhouse gas**

## Other direct and indirect greenhouse gases that contribute to global warming resulting from the Biomass plant

- Nitrous oxide (N<sub>2</sub>O)
  - **N<sub>2</sub>O is about 310 times more powerful than carbon dioxide as a greenhouse gas**
- Methane (CH<sub>4</sub>)
- Non-methane-volatile compounds (NMVOC)

**These chemicals have long atmospheric lifetimes and heat-trapping effects**

# Environmental Justice issues under the Clean Air Act

EPA and delegated entities (LRAPA) have the authority to:

- Examine EJ implications for siting...
- Include additional pollution control in new source permits...
- Require certain production methods...
- Require special allocations such as air monitoring.

# Seneca and LRAPA must address EJ issues in West Eugene

- 1. Seneca must operate under one Title V permit**
  - No “cheating” with 2 separate permits for one facility
- 2. Install “Maximum” emission control technology**
  - Accountability – “best” is not sufficient
  - Stack monitoring
- 3. Year-round Ambient Air Toxics Monitoring**
  - What is the cumulative pollution?
  - What are people really breathing?
- 4. Public Health Surveys**
  - Determine what diseases are more prevalent and why

# An Environmental Justice Perspective

- Solve issues that aren't normally addressed in the air pollution permitting process;
- Look at environmental pollution through the lens of fairness and human rights;
- Assess the cumulative effects of air pollution on neighborhoods;
- Research how disease and quality of life are linked to pollution exposure.