

# Air, Water and Land Use Permitting Considerations for Biomass Energy Facilities in OR and CA

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# Benefits of Biomass Power

- Renewable Energy
- Domestic Source of Energy
- Healthy Forests/Reduce Wildfire Danger
- Air Quality Benefits
- Greenhouse Gas Reduction
- Promoted by Federal, State, and even Local Policy



# Do these benefits improve the permitting situation?

Yes,



and No



# Potential Environmental Issues

- Air Quality
- Water Use & Discharge
- Land Use
- Transportation
- Biological Resources
- Noise
- Cultural Resources
- Visual/Aesthetics

*Focus  
today  
is on  
the  
first 3*



# Biomass Power and Air Quality Issues



# Air Quality Permitting for Biomass Power

- Principal air pollutants of concern:
  - NO<sub>x</sub> (ozone precursor)
  - PM
  - VOC (ozone precursor)
  - CO
  - HAPs (particularly HCl)
- Size of plant and associated emissions critical



# Which one are you building?

This one?



or this one?



- Minor Source
- or
- Minor Source



# Biomass Power and Water Quality Issues





# Water Quality Permitting for Biomass Power

- Water Use
- Water and Wastewater Discharge
  - Non-contact cooling water
  - Waste water
- Storm Water
  - Construction
  - Operation
  - Storm Water Pollution Prevention Plan

# Biomass Power and Land Use Issues





# Land Use Permitting for Biomass Power

- Siting and Land Use
- Zoning
- Conditional or Special Use Permits
- Community Acceptance

# The 4 P's in Permitting

- ✓ Planning
- ✓ Perception
- ✓ Perseverance
- ✓ Patience



# Regulatory Rapport

- ✓ Framing the biomass project and its positive attributes
- ✓ Pre-application discussions
- ✓ Understanding the system and the regulatory necessities
- ✓ Developing permitting & compliance strategies



# California

~~The Good~~, the Bad, and the Ugly



# California as a National Leader in Renewable Energy



but also



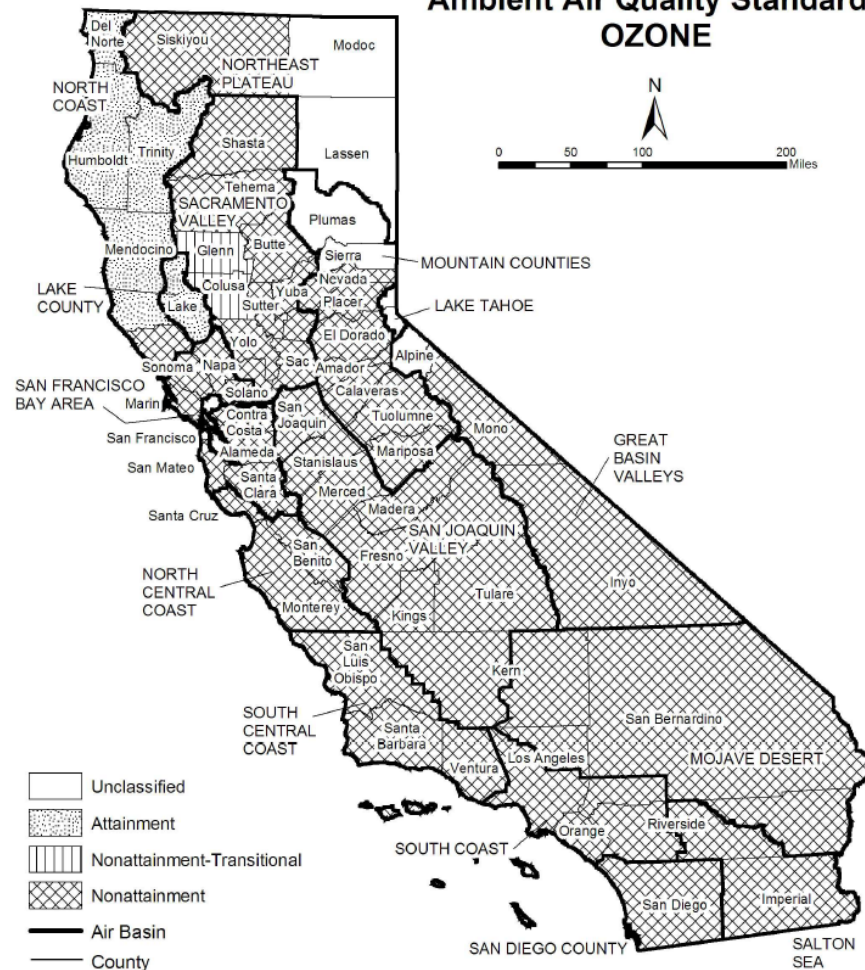
## Regulatory Complexity, Uncertainty, and Confusion

# CA Air Quality Permitting

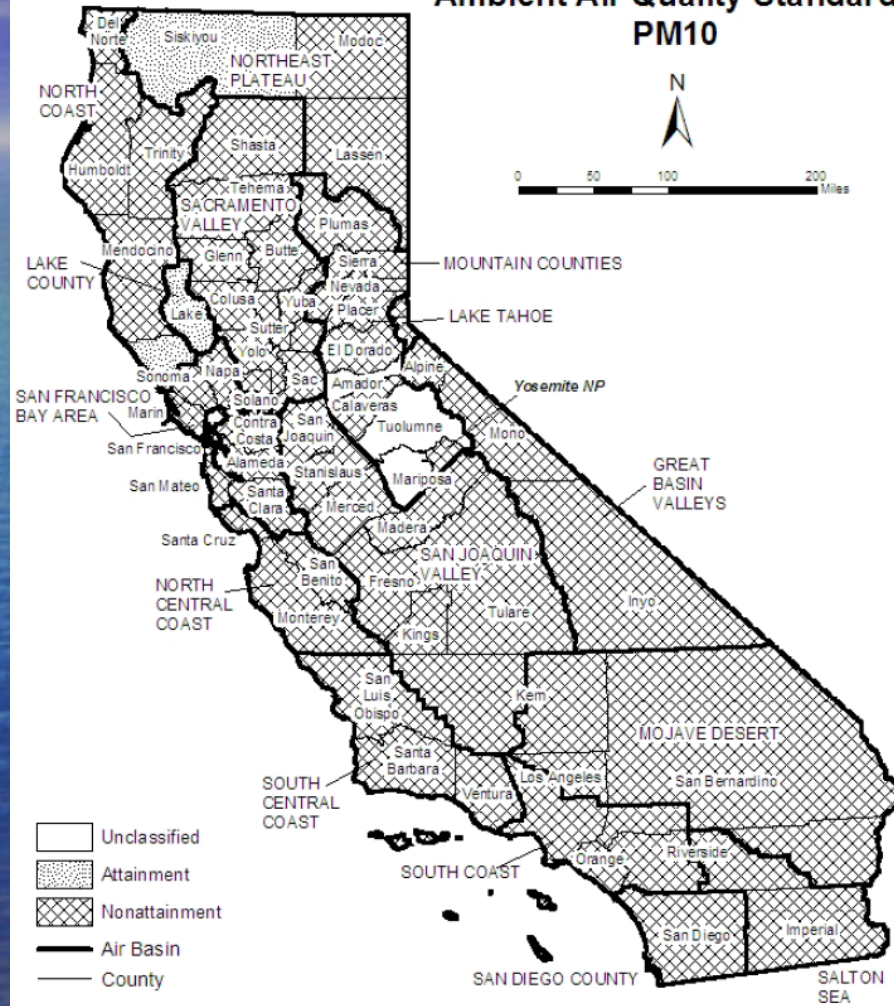
- High order of complexity due to:
  - Air quality constraints
  - 35 separate air districts
  - Voluminous regulations at state and district levels



# 2006 Area Designations for State Ambient Air Quality Standards OZONE

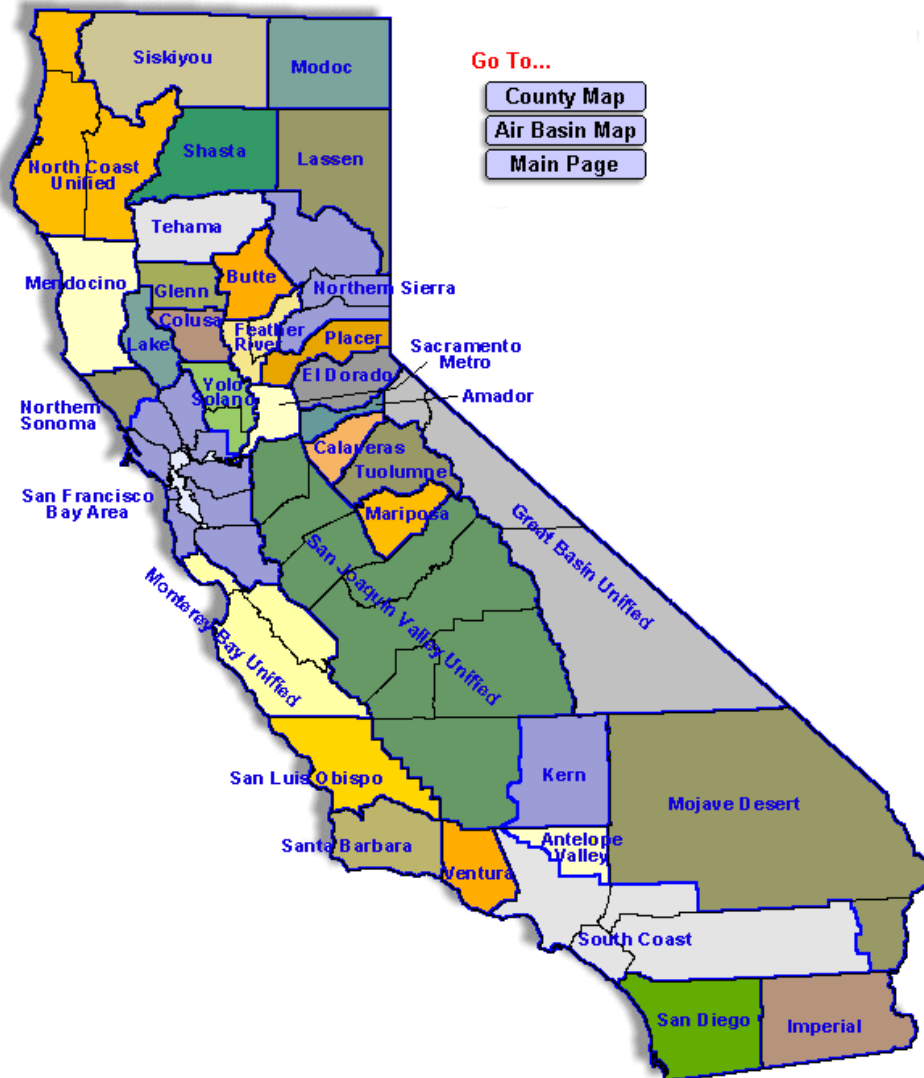


2006  
Area Designations for State  
Ambient Air Quality Standards  
PM10





# California Air Districts



# Air Quality Constraints

- Many of the CA Air Districts are in non-attainment for NOx and PM
- Attainment v. Non-attainment
- Emissions controls particularly important in CA
- Need for offset emissions – are they available and at what cost?



# The California Process

- District-specific rules and emission rules
- Authority to Construct
- Permit to Operate
- Title V Permit

# CA Water Quality Permitting

- Water use
  - Generally local agencies
- Wastewater Discharge
  - Regional Board
- Storm Water
  - State Board





# CA Regional Water Quality Control Boards



- 1 – North Coast
- 2 – San Francisco Bay
- 3 – Central Coast
- 4 – Los Angeles
- 5 – Central Valley
- 6 – Lahontan
- 7 – Colorado River Basin
- 8 – Santa Ana
- 9 – San Diego

# CA Land Use

- Siting
- Zoning Conformance
- Condition Use Permits
- Community Acceptance
- California Environmental Quality Act



# CEQA!

- CEQA – The California Environmental Quality Act
- Purpose – to inform the public of environmental decisions by CA agencies
- Public process driven
- For biomass power plants usually led by land use or air quality agencies

# Basic CEQA Components

- Environmental Information Form
- Environmental Checklist & Initial Study
- CEQA Determination
  - Exempted
  - Negative Declaration
  - Mitigated Declaration
  - Focused EIR
  - Full EIR



# Land Use Permits & Zoning

- County or City Planning/Community Development Department
- Zoning must be Industrial (or need for zoning change)
- Conditional Use Permits usually needed



# Oregon

Simpler? Let's Hope So!



# Oregon Air Quality Permitting

- Administered principally by the Department of Environmental Quality, Air Division
- Better, more centralized guidance
- Regional offices for Northwestern OR, Eastern OR, and Western OR
- Some local/regional air quality agencies – urban oriented

# The Oregon Process

- Air Contaminant Discharge Permit
- Several ACDP Permit types
  - Basic, General, Simple, and Standard
  - Applicants need to decide which type
- Title V



# Oregon Water Quality

- Water Use
  - Water Resources Department
- Wastewater Discharge
  - DEQ, Water Division
  - General Permit for 40 gpm of surface discharge
  - General Permit for non-contact cooling water
- Storm Water
  - DEQ, Water Division
  - Con/Ops General Permits



# Oregon Land Use

- Similar to CA in regards to local control
- No CEQA though
- Land Use Compatibility Statement
- OR Dept. of Energy Siting







U.S. Dept.  
of  
Redundancy  
Department

# Federal & Tribal

# Federal Agencies/Tribal Entities vs. State and Local Control

- Federal Land Management Agencies
- Environmental Protection Agency
- May use local/state standards
- Tribal Environmental Department
- FARR



# Remember

## The 4 P's in Permitting

- ✓ Planning
- ✓ Perception
- ✓ Perseverance
- ✓ Patience

# Questions?

# Comments?

# Ridicule?

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