

NC STATE UNIVERSITY

*Aquatic Plant Management*



# NPDES

Rob Richardson  
Crop Science Dept.  
North Carolina State Univ.



# Acronyms

- EPA: Environmental Protection Agency
- CWA: Clean Water Act
- NPDES: National Pollutant Discharge Elimination System
- FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act



# Court Ruling

- 6<sup>th</sup> Circuit Ruling - Jan. 7, 2009
- Vacated the standing CWA pesticides rule
  - Any chemical that leaves a residue (waste) falls under NPDES
  - Biological pesticides must also be permitted as they “undeniably alter the physical integrity of the waters” (Bt, grass carp?)
- EPA granted a two year stay to develop permitting process and implementation



# What is Impacted?

- Pesticides applied directly to water
  - Aquatic herbicides
- Pesticides applied over water
  - Forestry herbicides
- Pesticides applied near water
  - Applications to stream, ditch, water banks
  - “Wide area insect suppression” (i.e. gypsy moth)
- 365,000 applicators making 5.6 million applications per year
- 3,700 product labels containing 500 pesticide active ingredients



# New Appeal

- National Cotton Council and others have recently filed an appeal to the Supreme Court
- Appeal says the courts action created duplicate regulation and could unravel the CWA's current exemptions for agriculture
- Not likely to be heard
- Likely that only Congress can stop it now...



# Timeline

- 2009
  - Jan. 7: 6<sup>th</sup> Circuit Ruling
  - Aug. 3: Industry petition to rehear denied
  - Sept/Oct: EPA begins working w/ stakeholders
- 2010
  - April: EPA releases draft permit process
  - Dec.: Permit process finalized
- 2011
  - April 10: D-day (permitting must be implemented)



# What Is Happening Now?

- EPA developing “prototype” permits
- Essentially, this means EPA has some ideas and is beating them around, but nothing they want public input on
  - Workgroups, steering committees, presentations, etc.
  - Interacting with USDA on procedure
  - Meeting with state NPDES implementers
  - “Reality check” for all involved



# NPDES Permitting in CWA

- NPDES permit must be obtained from EPA or NPDES-authorized state for:
  - All “point” sources...
  - “Discharging pollutants”...
  - Into “waters of the U.S.”



# Types of NPDES Permits

- Individual permits
  - 1 application = 1 permit
  - “Application includes detailed information describing the specific discharges to be covered under the permit, including the nature and concentration of discharges”
  - I think this means that each specific pesticide application (discharge) would fall under a unique permit



# Types of NPDES Permits

- General permits
  - 1 permit issued = each permittee submits NOI
  - Permit must identify:
    - Area of coverage
    - Sources covered
    - Other information
  - NOI typically includes info on discharger, type of discharges, and receiving water
  - Precedent for general permits w/ other discharges



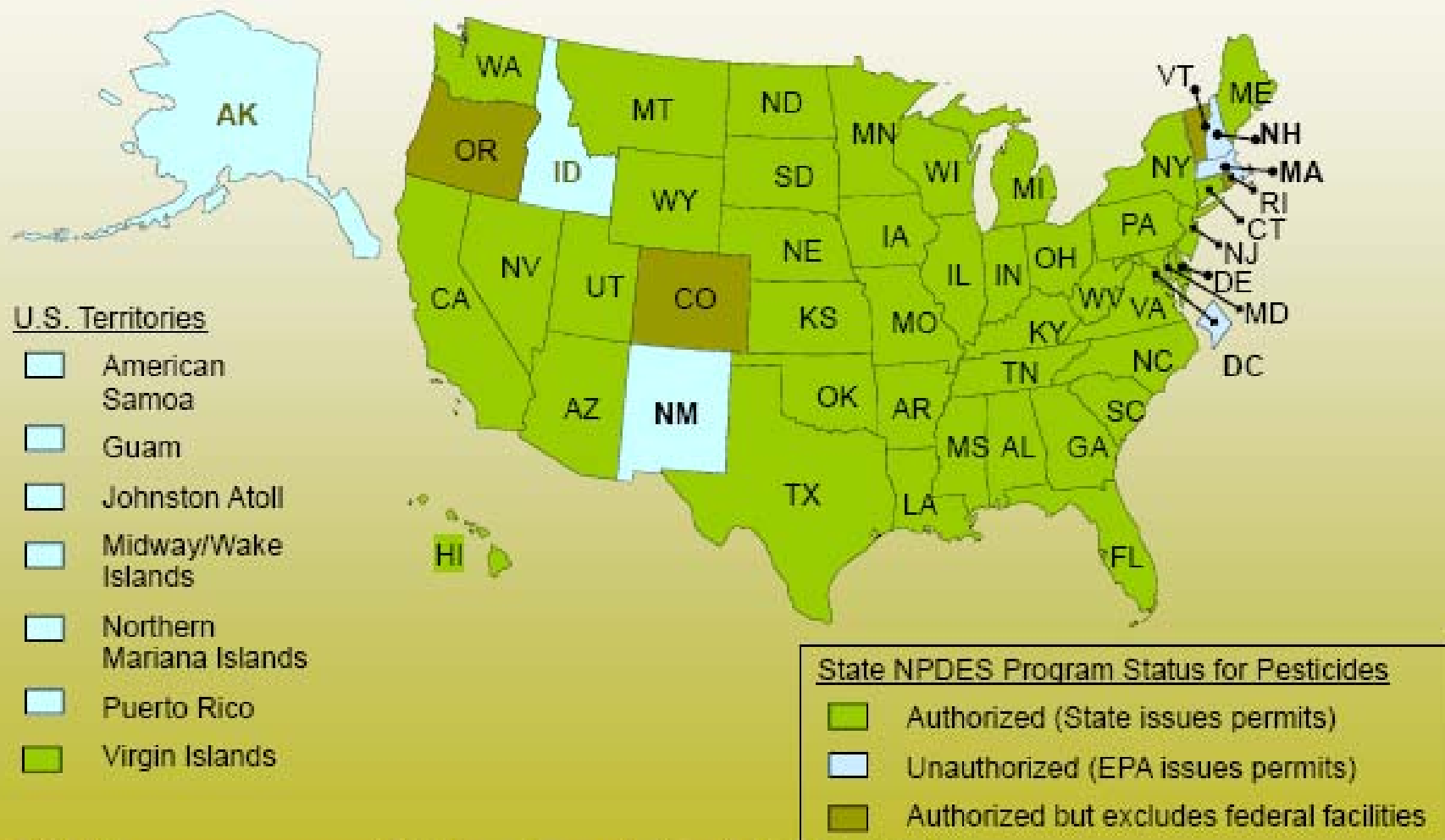
# Types of NPDES Permits

- General permits
  - EPA issued general permit will cover states where EPA remains permitting authority
  - Each NPDES authorized state will develop general permit
    - State permits must meet EPA requirements and can be more stringent
  - Permits written based on permit writers best judgment
  - Citizens can challenge permits



# NPDES Authorized States

– EPA, Oct. 7, 2009



October 7, 2009

Preliminary Agency Position Under Consideration  
(Working Draft)

# Notice of Intent

- To be covered under the general permit, a Notice of Intent (NOI) may need to be filed
- For instance, if more than x acre treatment are conducted in a given year, then a NOI is required
- X is expected to be high enough to exclude infrequent applicators
- Threshold could also be amount of product and may vary by use category



# NOI – Who Files?

- Typically, the organization responsible for decision making **not** the applicator
  - Mosquito control districts
  - Cooperative weed management districts
  - Power company
- However, applicators will need to file a NOI if they treat more than x (500?) acres not covered by other NOI's



# NOI – Timing

- Permit coverage starts 10 days after receipt of completed NOI (unless assessment needed)
- Filed NOI provides coverage for the life of the general permit (5 years)
- For cases of aggregate thresholds, NOI should be filed prior to exceeding threshold, not at first treatment
  - 3A treated, 3 A treated, file NOI, 10 A treated...
- Exceptions for emergency situations



# NOI – Contents

- Identify responsible entity
  - Contact information
  - Entity description (govt. agency, applicator, etc.)
  - Type of discharge (use pattern)
  - Receiving water body
- Updates necessary for activities outside of those identified in the NOI



# Technology Based Effluent Limits (TBEL)

- Utilization of Integrated Pest Management (IPM) to reduce pesticide discharges
- Permittee should:
  - Identify and assess the pest problem (survey)
  - Consider source reduction
  - Consider habitat modification
  - Follow appropriate procedures for pesticide use
    - Calibrate, measure area, maintain equipment, etc.
  - Educate



# TBEL cont.

- Identify the problem
  - Locate weed problem; survey pre and post-treatment
  - Assess weed biology
  - Set threshold level
- Use alternative practices
  - Mechanical control where feasible
  - Promote biological control
  - Use habitat modification procedures
  - Minimize impacts to non-target species



# Water Quality Based Effluent Limits (WQBEL)

- Different under CWA than FIFRA
- Permit will include narrative about meeting water quality standards
- If permittee becomes aware of exceeding water quality standards, permittee must take corrective actions, document actions, and notify EPA
- EPA may demand additional actions



# Self Monitoring

- Visual monitoring may be appropriate
- Spot checks for adverse effects on non-target species
- EPA may demand additional monitoring
  - Becomes enforceable permit conditions
  - Time period for review and activation
  - Permittee can accept or apply for individual permit
- EPA can use separate authority to require monitoring and/or compliance



# Annual Reporting

- Must be submitted electronically
- Report may be required to contain:
  - Pesticides used, amounts, rates, & EPA registrations
  - Descriptions and jurisdictions where applied
  - Pests targeted
  - Due Feb. 15 of following year



# Adverse Incident Reporting

- Any adverse incidents must be reported in writing to permitting authority and state
  - Also triggers corrective action
  - Also triggers additional monitoring
- Must be reported within 24 hours of discovery
- Local agencies must be notified
- Contents: date and location, pesticide info, species affected and effects, magnitude, certification that pesticide label was or was not followed
- EPA can ask for more info



# Recordkeeping

- Documentation of the plan
- Documentation of the activity
- Some records kept by permittee and EPA
  - NOI and related information
  - Permits, reports, and corrective actions
- Other records kept only by permittee
  - Application logs
  - IPM documentation
  - Reports and corrective actions
- **Public access** to records through EPA request



# Key Differences

- Citizens may challenge NPDES permits
- Applicators may not be sued under FIFRA as long as the pesticide label is followed
- Dischargers may be sued under CWA even if discharge is covered under a permit and appropriate NOI was submitted
- Fines for violations are much greater under CWA than FIFRA



# Summary

- Initially, EPA had no idea how large the scope of the situation was
- Few EPA personnel have real-world experience in these areas
- However, decision making seems to be taking a common sense approach
- Based on the western model, NPDES permitting will be doable, but more expensive



# Summary – Projected Impact

- Several western states already operating under NPDES
  - Application expenses have increased by ~30%
    - Less herbicide applied
    - Fewer acres treated
    - Increased administrative costs (paperwork)
    - Increased environmental monitoring
    - Greater business (margin) for large, do-it-all companies
    - Less business for small, application-only firms
    - Tougher for generic suppliers?



# A Compounding Concern – Oberstar Bill

- Clean Water Restoration Act
- Replaces “navigable” in CWA to cover:
  - “all waters subject to the ebb and flow of the tide, the territorial seas, and all interstate and intrastate waters and their tributaries, including lakes, rivers, streams (including intermittent streams) ... mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, natural ponds....”
  - Essentially covers anything with water



# Oberstar Bill

- Federal over-reach?
- Under the proposed bill, a 6 year old boy that pees in (or near) a mud puddle on private property could be fined \$25,000 (per day of water residue) unless he had the foresight to get a NPDES permit



# Other EPA Changes- New Registrations

- 30 day public comment period for:
  - New pesticide active ingredient or new
  - The first residential, outdoor or food use of currently registered active
  - Policy implemented Oct. 1 without prior warning
  - No statement from EPA on how comments will be used



# Other EPA Changes – Inert Ingredients

- Advanced Notice of Proposed Rulemaking:
  - To require that identities of hazardous inert ingredients, and possibly all inert ingredients, be made publicly available



# Questions?



**NC STATE UNIVERSITY**

*Aquatic Weed Management*

