

Draft Long Island Pesticide Pollution Prevention Strategy

New York State
Department of Environmental Conservation



2/26/13

***Draft LI Strategy
Stakeholder Meeting***

WELCOME

February 25 & 26, 2013



TODAY'S MEETINGS

- **Full Group Session (2 hours)**
 - NYSDEC Opening Remarks and Introductions
 - NYSDEC Overview of Draft Strategy
 - Questions and Answers
 - Next steps

- **Stakeholder Breakout Sessions (1 hour)**
 - Discussion of Stakeholder Roles
 - Questions and Answers



THE CHALLENGE AND THE STRATEGY

- Vital to Long Island:
 - **Water quality** – Sole source aquifer relied upon by millions of people
 - **Pest management** – Integral role in public health, agriculture, structural integrity, stored goods quality

- Pesticides can potentially affect environmental quality if:
 - Improperly used
 - Certain environmental conditions and pesticide characteristics exist

- Draft Strategy designed to further protect LI water resources from pesticide impacts and encourage pest management that is both effective and also avoids contaminating groundwater



DEVELOPMENT OF LI STRATEGY

- Through the TAC, DEC engaged County agencies, regulated communities, and public to discuss further protection of LI groundwater from potential pesticide-related impacts
- Proposed draft plans in 2010 and 2011



GOAL OF THE STRATEGY

A two-part goal:

- Prevent adverse effects on human health and the environment by protecting Long Island's groundwater and surface water resources from pesticide-related contamination, and
- Continue to meet pest management needs of agricultural, residential, commercial, industrial, and institutional sectors.



HIGHLIGHTS OF THE STRATEGY

- **Pollution Prevention (P2)** principles to enhance DEC's regulatory program
- **Blueprint for Action** – stepwise actions to implement P2 measures
- **Coordinated Collaboration** with Stakeholders
 - Technical Review and Advisory Committee (**TRAC**)
 - Stakeholder Workgroups
- **Monitoring** focused on Strategy issues



WHY A P2 APPROACH?

- Water quality monitoring results
 - Widespread detections, generally low levels
 - Half of the 117 pesticide chemicals detected since 1996 are legacy compounds
 - Need to focus monitoring on potential sources
- Registration legal and regulatory framework
 - DEC can restrict, condition, deny, or cancel registration
 - Restrictions and conditions negotiated with registrants
 - Weigh potential risks against benefits of pesticide use



WHY A P2 APPROACH?

- Pollution prevention (P2)
 - Faster coordination and implementation of P2 than registration change
 - Best chance of success to change methods of pesticide use
 - Best use of staffing and fiscal resources



SCOPE OF THE STRATEGY

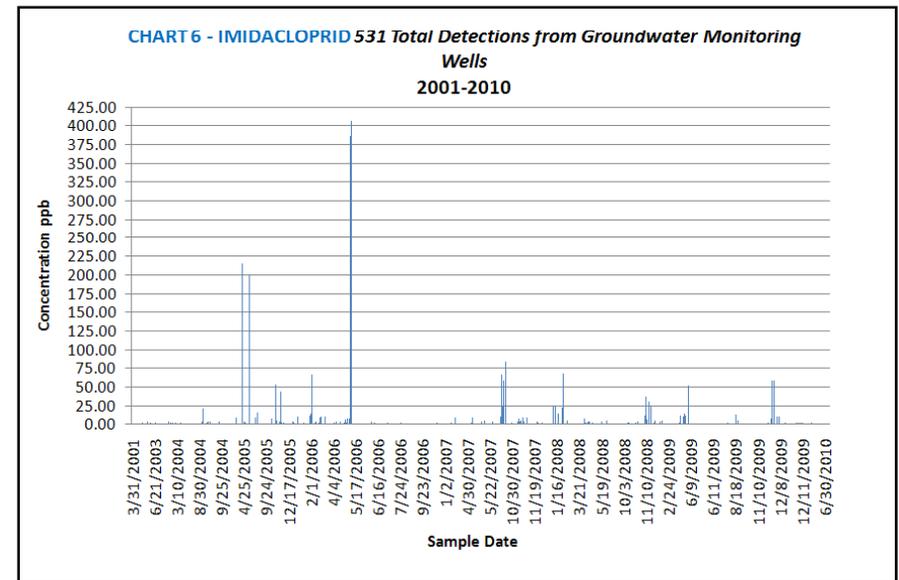
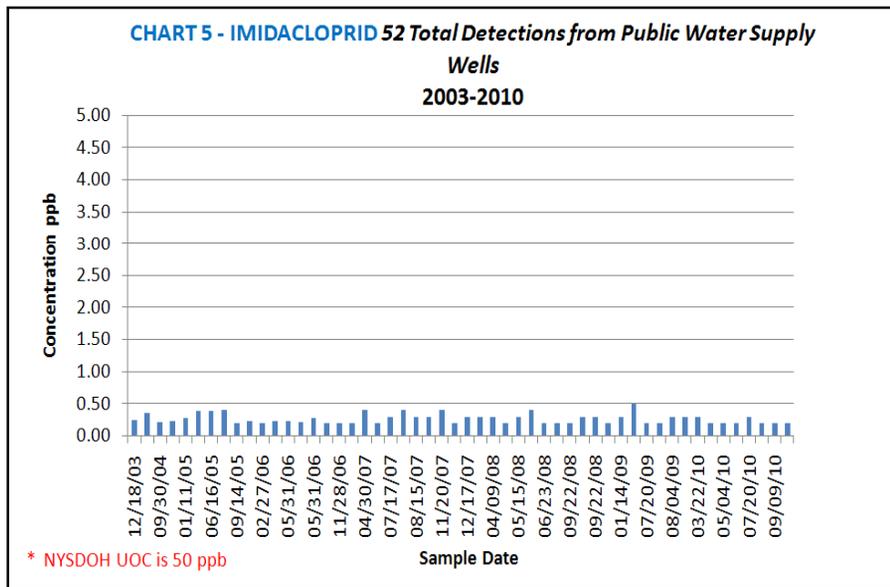
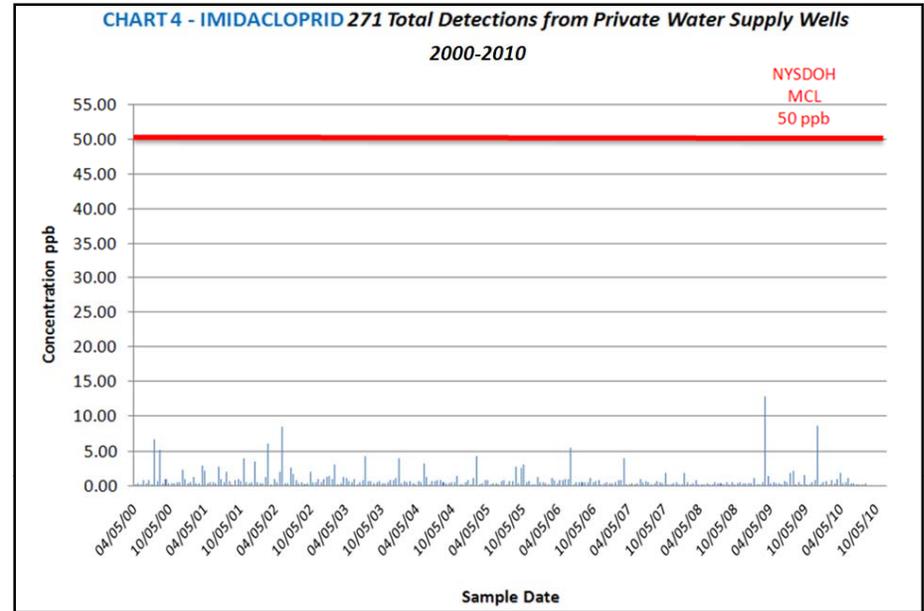
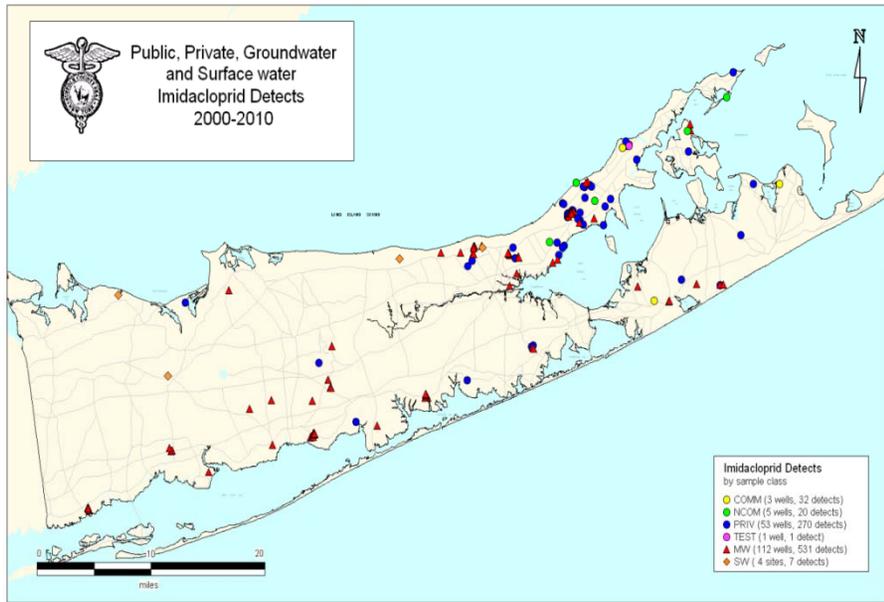
- 117 pesticide-related chemicals detected since 1996
- 61 of the 117 are associated with 47 AIs currently registered for use on LI
- Initial scope of Strategy will be those 47 AIs
- In 2009-2010 detected about 15 AIs from currently registered products

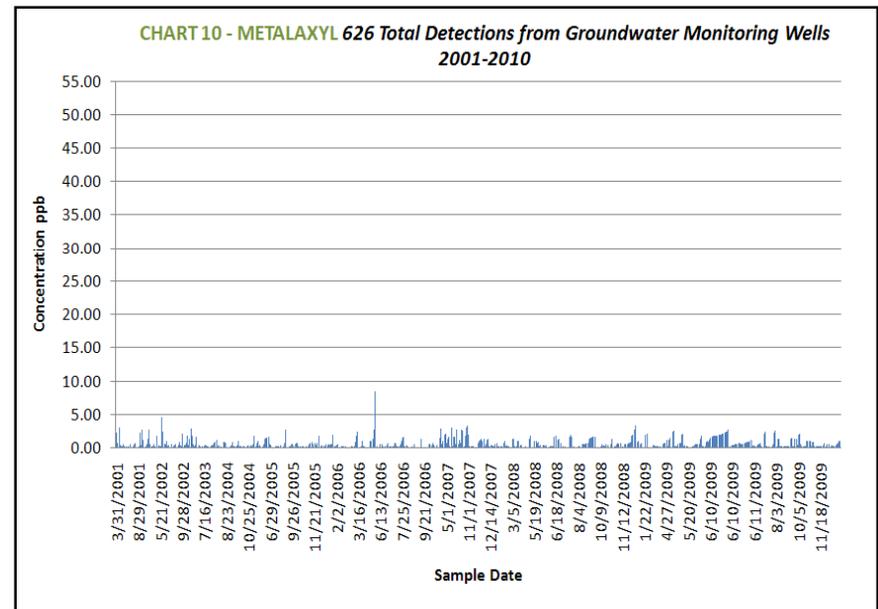
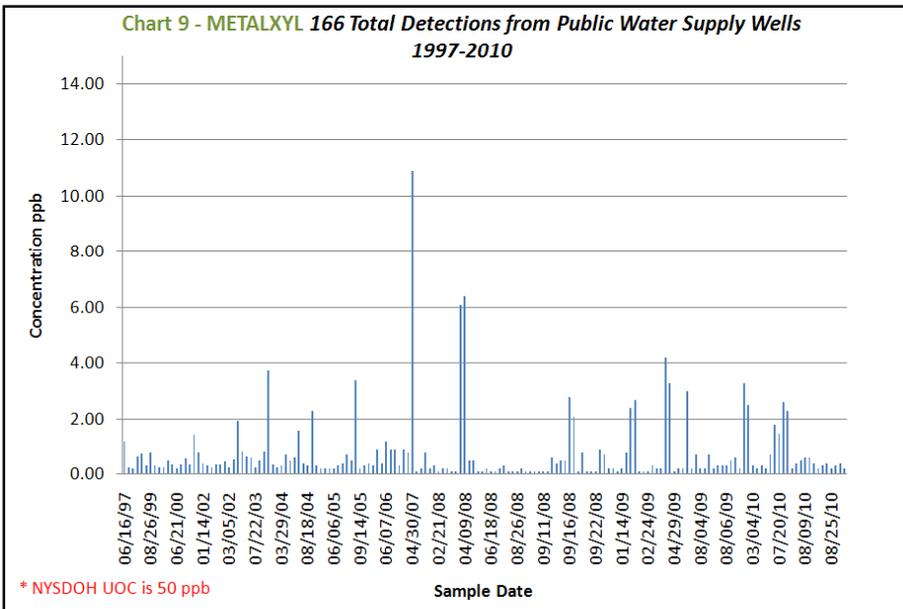
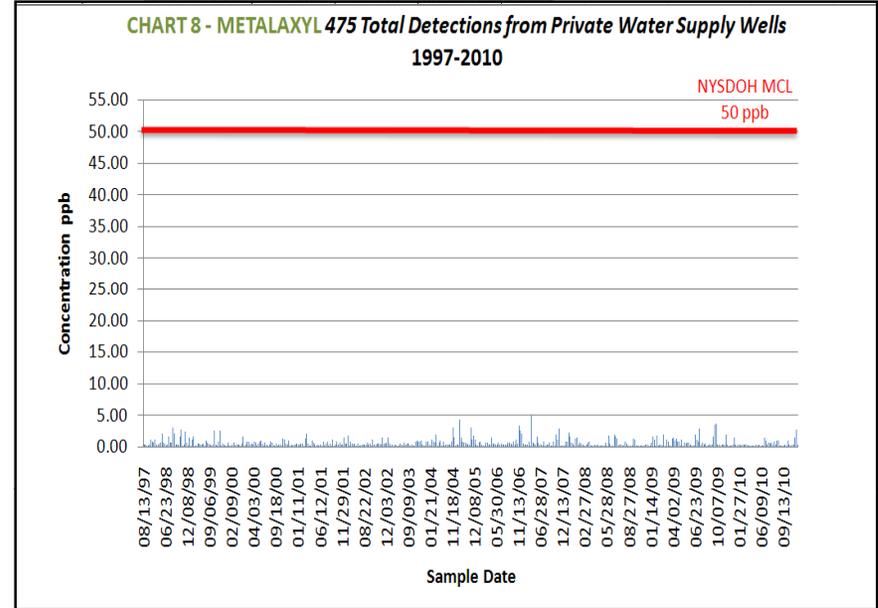
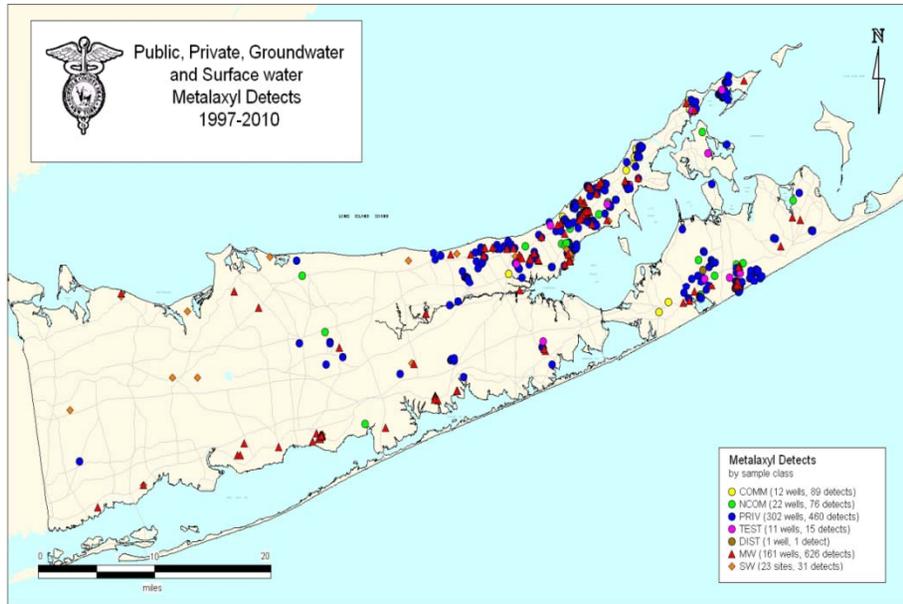


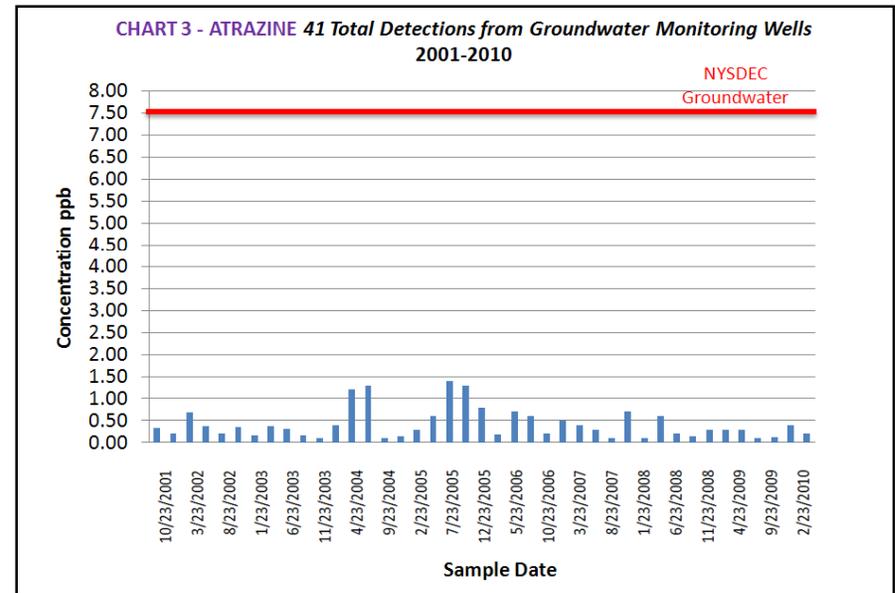
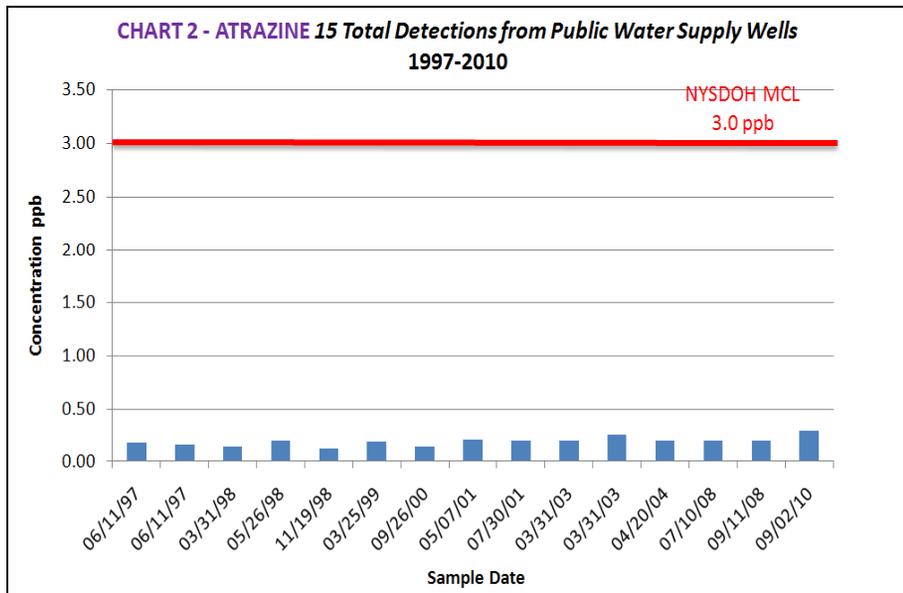
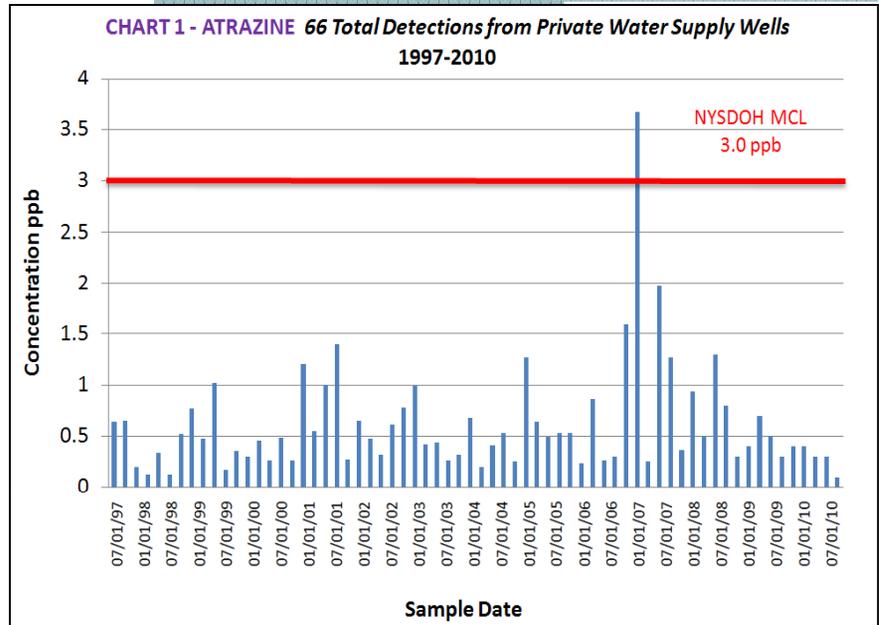
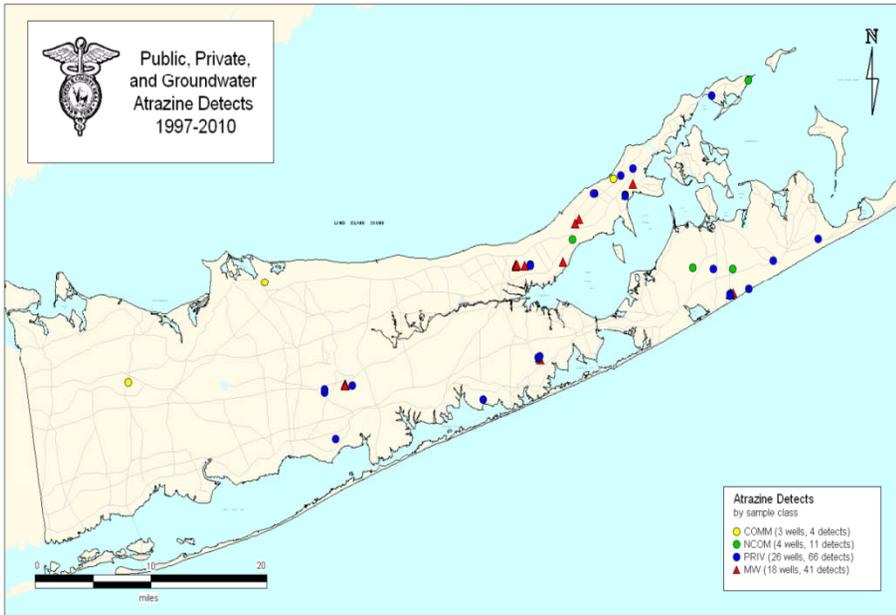
FIRST ACTIVE INGREDIENTS TO CONSIDER

- Anticipate the first AIs to be considered using pollution prevention blueprint
 - imidacloprid (insecticide)
 - metalaxyl (fungicide)
 - atrazine (herbicide)









PESTICIDE PRODUCT REGISTRATION

- Pesticide products are registered by the EPA and must comply with FIFRA and 40 CFR
- Pesticide products must be registered in each state where they are sold or distributed
- States have varying degrees of laws and regulations regarding registration in their state
 - For example some states must register a product if it is registered by the EPA
- New York State has a strong registration program



PRODUCT REGISTRATION PROCESS

- Several types of pesticide product registration applications
- All pesticide application types have legislatively mandated time frames
- Products are reviewed when an application is submitted
 - Similar to the EPA



REGISTRATION APPLICATION TYPES

- New Active Ingredients (NAI) - active ingredient not contained in any currently registered product
- Major Changes in Labeling (MCL) - change that is likely to increase the potential for significant impact to humans, property, or the environment
 - Example: add indoor homeowner use for AI that is currently only an outdoor agricultural use product
 - (ECL 33-0704: 60 Day Completeness; 150 Day Decision)



PRODUCT REGISTRATION PROCESS

NAI and MCL undergo extensive scientific reviews

- Human Health Assessment (NYSDOH)
- Environmental Effects Assessment (FW&MR)
- Environmental Fate Assessment
- Analytical Methods Assessment



MITIGATION OF CONCERNS

- Reduce Application Rates
- Reduce Number of Applications
- Limit Application Methods
- Add Personal Protective Equipment
- Add Buffer Zones
- Limit Sites of Application
- Require New Studies
- Designate Product as “NYS Restricted Use”
- Addition of “Not for sale, distribution or use in Nassau and Suffolk Counties”



MITIGATION OF CONCERNS

- New Active Ingredients (1992 to present, 20 years)
 - About 365 product applications received
 - About 85 denied or withdrawn – almost a quarter of applications
 - About 280 products registered - three quarters of products with NAIs were registered
 - About 170 of those had mitigations – about 60% of registered products with NAIs

- Major Changes in Labeling (1992 to 2007, 15 years)
 - About 300 applications received
 - About 125 denied or withdrawn – about 42% of applications
 - About 175 products registered - 58 % of products with MCLs
 - About 95 of those had mitigations – about 55% of registered products with MCLs



LASTING IMPACT ON FUTURE REGISTRATIONS

- 381 products are currently registered with language which prohibits sale and use on LI
- 152 products bear special LI language
 - For example: not for use on golf courses and sod farms
- 747 products are currently classified as restricted use based on concerns
 - According to 6NYCRR 326.23(e) the commissioner may classify a product as restricted use



PRODUCT REGISTRATION LEGAL AND REGULATORY AUTHORITY

- According to FIFRA Section 24 a State shall not impose or continue in effect any requirement for labeling or packaging in addition to or different from those required under FIFRA
 - Registrant must voluntarily agree to change the label
- Authority to deny a pesticide application if the pesticide does not warrant the proposed claims or if the label does not comply with the provisions of Article 33 (ECL §33-0711)
- Authority to cancel the registration of a pesticide product if it appears that the pesticide, its labeling or other material required to be submitted does not comply with the provisions of Article 33 (ECL §33-0713)



PRODUCT REGISTRATION LEGAL AND REGULATORY AUTHORITY

- The Department has the authority to suspend the registration of a pesticide product if it is deemed necessary to take immediate action in order to prevent imminent hazard to the public or any other non-target organism (ECL §33-0719)
- The Department also has the authority to pursue Emergency Rulemaking and immediately adopt a rule when necessary to preserve public health, safety or general welfare (SAPA §202(6))
 - This would be an extreme measure and be done in conjunction with the full support of the NYS Health Department



BLUEPRINT + REGULATORY PROGRAM

DEC's existing pesticide program includes groundwater protection measures

P2 Blueprint enhances regulatory program

Adds structured partner-based P2 approach

Provides opportunities to deliver increased P2 during pest management

Melds regulatory and enhanced P2 actions to reinforce environmental protection

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PESTICIDE POLLUTION PREVENTION BLUEPRINT

The Blueprint sets the steps
for collaborative action
to reach the Strategy's goal
using pollution prevention principles



PESTICIDE POLLUTION PREVENTION

- Generally, pollution prevention means reducing or eliminating the creation of pollutants at the source
- In the context of pesticides on Long Island, pollution prevention may mean modifying pest management processes, promoting the use of alternative pest management practices, and utilizing effective, less-toxic products when available



P2 BLUEPRINT SUMMARY

DEC Conducts Initial Assessments of Specific Active Ingredients (AIs) and Related Pesticide P2 Needs



DEC Forms, Convenes and Chairs Pesticide P2 Workgroups; Workgroups Consider Various Matters Regarding Specified AIs and Related P2 and Advise DEC



DEC Identifies and Prioritizes Pesticide P2 Measures and Partners Collaborate to Implement P2 Measures



DEC Tracks Pesticide P2 Results and Assesses Need for P2 Modifications



DEC Maximizes Department Use of Water Quality Monitoring for Pesticides (Monitoring underlies implementation of the entire blueprint)

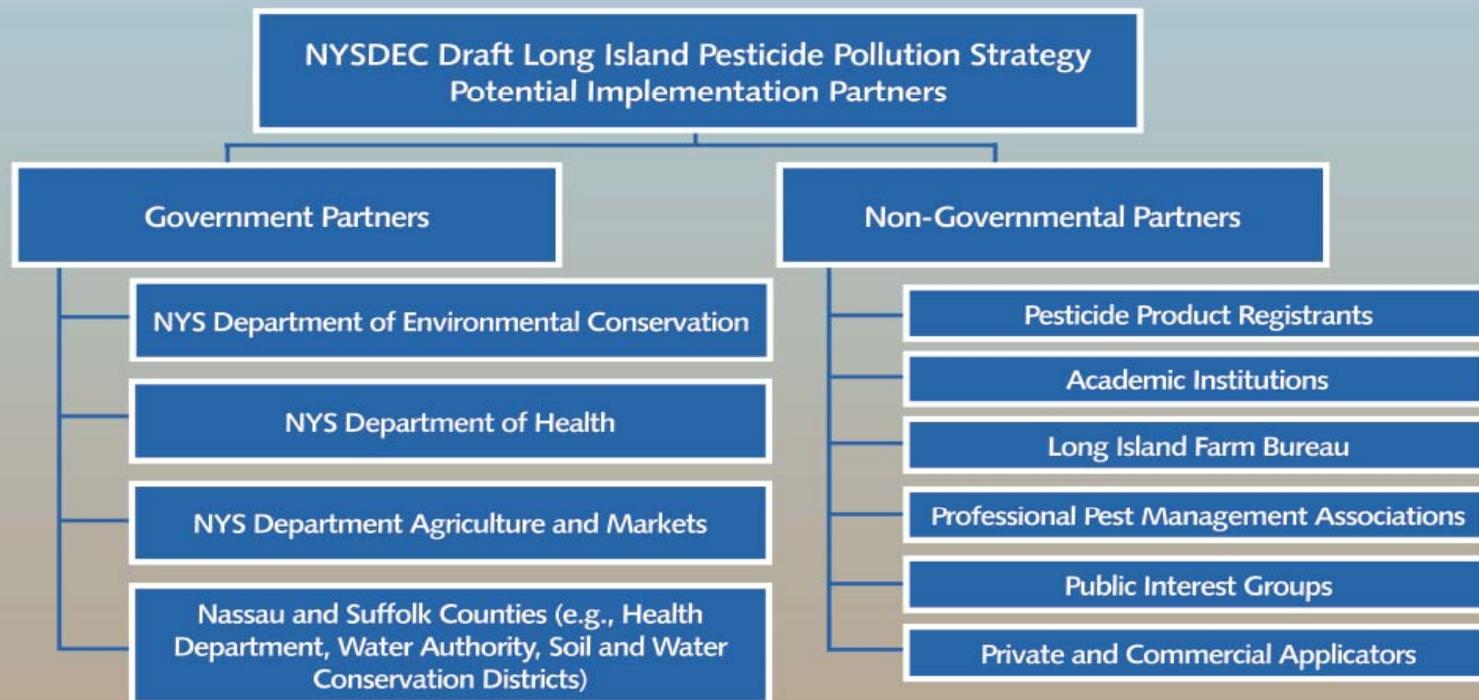


POSITIVE OUTCOMES OF BLUEPRINT

- **Manage pesticide-related chemicals:**
 - ✓ Reduce further groundwater contamination from existing chemicals
 - ✓ Minimize introduction of new contaminants to groundwater
 - ✓ Reduce risks to human health and the environment associated with contaminants
- **Expand and coordinate partnerships to develop and integrate P2 additional measures into LI pest management to protect groundwater**



PARTNERSHIPS ARE KEY



TECHNICAL REVIEW AND ADVISORY COMMITTEE OVERVIEW

- **How and When:** DEC convenes TRAC approximately 6 months after final Strategy
- **Composition:** Entities with expertise and close involvement with pesticide regulation and water quality monitoring for Long Island:
 - New York State Departments of
 - Environmental Conservation (Chair)
 - Health
 - Agriculture and Markets
 - Local Entities
 - Suffolk County Department of Health Services
 - Suffolk County Water Authority
 - Soil and Water Conservation Districts
 - Nassau County Health Department
 - Cornell Cooperative Extension of Suffolk County



TECHNICAL REVIEW AND ADVISORY COMMITTEE OVERVIEW

- **TRAC Primary purposes:**
 - Assess active ingredients (AIs) identified by DEC
 - Consider and advise DEC on significance of factors, such as groundwater monitoring data, potential human exposure and health risks, existing pest management needs
 - Evaluate and advise DEC on potential feasible P2 measures

After 5 years, Department and TRAC members assess need for continuing the TRAC



P2 WORKGROUPS - OVERVIEW

- **In addition to TRAC, P2 Workgroups will develop and implement P2 measures**

- **Composition – can vary, depending upon pesticides considered**
 - Water Quality Monitoring Entities
 - Academia
 - Outreach Entities
 - Pesticide Users
 - Pesticide Registrants
 - Public Interest Groups



P2 WORKGROUPS - OVERVIEW

Primary purposes:

- Consider uses of specified AIs on Long Island and feasible alternative pest management methods and products
 - Existing alternatives
 - Develop potential new or modified alternatives
 - Weigh potential impacts of alternatives on those using AI and on the environment and groundwater
- Advise DEC on feasible alternatives and metrics to measure success
- Partner with DEC to implement alternatives - outreach and education
- Track progress of P2 and modify if needed



BLUEPRINT STEP 1

ASSESS & IDENTIFY AIs

- DEC conducts initial assessments of specific active ingredients (AIs) and related pesticide P2 needs
- **Criteria for Identifying AIs**
 - Detection (concentrations, number of detections, locations, frequency, co-occurrence)
 - AI never reviewed by New York State
 - Major data gaps regarding AI (outstanding studies, data call-ins, etc.)
 - Exposure potential
 - Number and type of products containing the AI
 - Availability of effective and lower-risk alternatives
 - Critical need for the AI



EXAMPLE

IDENTIFYING A PRIORITY AI

Select Active Ingredient X based on:

- Concerns regarding number and frequency of groundwater detections
- Under review by EPA
- Lack of prior extensive New York State review
- Many products containing the AI registered for outdoor use in New York State



BLUEPRINT STEP 2

EVALUATE & ADVISE ON AIs & P2

- DEC Forms Pesticide P2 Workgroups
- Workgroups Consider Specified AIs and Related P2 and Advise DEC
 - TRAC
 - Stakeholder Workgroups



EXAMPLE - TRAC REVIEW OF ACTIVE INGREDIENT X

- Groundwater monitoring data review
 - Identify data gaps or needs
 - Trends over time?
 - Link locations and concentrations
 - Elevated concentrations in certain locations?
 - Focus on recent data – concentrations generally lower in recent years?
 - Does the data point to any obvious sources?
 - Adjustments to SCDHS monitoring under DEC scope of services?



EXAMPLE - TRAC REVIEW OF ACTIVE INGREDIENT X

- Human health risks
 - Site-specific risk assessments
- Existing pest management needs/uses
 - What types of pests does the AI control?
 - What are its specific crops, sites, use patterns?
 - What are the primary and secondary uses/users?
 - Is there a pest or disease for which there are few or no alternatives?
 - How much is used?



EXAMPLE - TRAC REVIEW OF ACTIVE INGREDIENT X

- **Effective & lower risk alternatives**
 - Alternative product lists such as in CCESC Profiles
 - What alternatives exist for different uses – vegetables, floral, turf, etc.?
 - Are other products available?
 - Are they effective at all? Just on certain pests?
 - Are the costs comparable?
 - Do the alternatives require more frequent application?
 - How critical is product rotation among the alternatives?
 - Role of Integrated Pest Management (IPM) in reducing use?



EXAMPLE - TRAC REVIEW OF ACTIVE INGREDIENT X

- Potential P2 measures
 - Limit # of applications per season
 - How many?
 - Limit on certain crops?
 - Limit type of applications - drench
 - Rotate use with alternative products
 - Crop management - Crop rotation, raised beds
 - Biological controls in Greenhouses



WORKGROUP REVIEW OF ACTIVE INGREDIENT X

- Specific Workgroups formed to provide information and advice on some of the same issues as TRAC
 - Additional potential P2 measures – BMPs, etc.
 - Other alternatives
 - Site-specific groundwater concerns
 - Outreach



STEP 3

COLLABORATE & IMPLEMENT P2

- DEC Identifies and Prioritizes Pesticide P2 Measures and Partners Collaborate to Implement P2 Measures
 - Identify and prioritize P2 measures
 - Identify partners to collaborate and implement
 - Implement P2 within available resources
 - Strengthen existing outreach partnerships, forge new partnerships and maximize Internet resources
 - Identify stakeholders and build P2 implementation support



EXAMPLE OF P2 PRIORITIES FOR ACTIVE INGREDIENT X

1. Product rotation
2. BMPs
3. Limited # of applications
4. Biological controls in Greenhouses



WORKGROUP IMPLEMENTATION

- Product Registrants
 - Existing data or ongoing studies of environmental and human health impacts of products?
 - Voluntary changes in labels or use patterns
 - Help develop and disseminate best management practices
 - Train Applicators on use of products



WORKGROUP IMPLEMENTATION

- Applicators/Users
 - Promote sustainable practices and appropriate use of Active Ingredient X products to prevent groundwater impacts
 - Sponsor training courses that promote these practices and principles with specific focus on this Active Ingredient
 - Gain feedback and gather information on its use on Long Island



WORKGROUP IMPLEMENTATION

- Academia – Cornell, others
 - Research on alternative products, practices
 - NYS Integrated Pest Management Program
 - Support and promote IPM for pests and diseases on which Active Ingredient X is used
 - Pesticide Management Education Program
 - Provide consumer/citizen support and education
 - Provide pesticide use recommendations (“Cornell Guidelines”)



WORKGROUP IMPLEMENTATION

- Public Interest Groups
 - Continue dialogue about concerns over use and groundwater detections
 - Offer input on alternatives to Active Ingredient X and P2 measures recommended or implemented
 - Assist with disseminating information on alternatives, best management practices, progress.



STEP 4

TRACK & MODIFY P2

- DEC Maximizes Department Use of Water Quality Monitoring for Pesticides
 - DEC monitors results of P2 implementation and determines if additional monitoring and measures are needed
 - Monitor results through environmental monitoring, inspections, user surveys and reporting, etc.
 - Collaborate with stakeholders on review of monitoring results and their application to other active ingredients



NEXT STEPS

- 90-day comment period ending 4/30/13
- Comments
- Public Meetings 4/3 and 4
- DEC reviews and responds to comments on Draft Strategy
- DEC modifies strategy as needed
- Annual TAC meeting
- Full implementation begins and continues after final Strategy is issued



NEXT STEPS

Send Comments on the Draft Strategy, by April 30, 2013, via e-mail, mail or fax to:

Scott Menrath, P.E., Director, Pest Management
625 Broadway
Albany, New York 12233-7254

E-mail: LongIslandStrategy@gw.dec.state.ny.us

Fax: 518-402-9024



NEXT STEPS

Public Meetings

Date: April 4, 2013
Time: 6-9 PM
NYS DEC Availability
Session: 6-7 PM
Public Meeting: 7-9 PM
Location: Morrelly
Homeland Security Center
510 Grumman Road West
Main Conference Room
Bethpage, NY 11714

Date: April 3, 2013
Time: 6-9 PM
NYS DEC Availability Session:
6-7 PM
Public Meeting: 7-9 PM
Location: Suffolk County
Community College
Eastern Campus
121 Speonk-Riverhead Road
Building: Shinnecock 101
Riverhead, NY 11901



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