

# Disposal of Waste Pharmaceuticals:

## *Issues and Actions for New York State's Waters*

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# Topics to Cover

- Contaminants of Emerging Concern
- Pharmaceuticals – the issues
- Pharmaceuticals – the answers (?)
- Heads Up – Part 659



# “Emerging Contaminants” or “Contaminants of Emerging Concern”

- Newly present or *newly found*, not commonly monitored, unregulated in water, poorly studied/poorly understood, concerns re human health or aquatic life
- Prefer *Contaminants of Emerging Concern*
- Includes PBDEs, PFOA, and Pharmaceuticals and Personal Care Products (PPCPs)



# Pharmaceuticals in Water: Why DEC is Concerned

- **Designed to have biological effects**
- **225 Million prescriptions per year in NYS**
- **Effects of intended uses are well known; concern is exposure at lower levels**
  - Aquatic Life
  - Human Health
  - Drug Resistant Bacteria



# Sources of Pharmaceuticals

## Diverse and Widespread

- **Flushing of leftover medicines**
  - residential
  - institutional
- **Manufacturing plants**
- **All of us: pass-through of unused medicines**



# Reducing Pharmaceuticals in Water: A Complex Problem

- Widespread and diverse sources
- Few if any water quality standards
- Waste water treatment only partly effective;  
- not designed to remove pharmaceuticals
- No single/simple solution



# Reducing Pharmaceuticals in Water: A Complex Solution

- Source Control: unused medications
- Source Control: drug manufacturers
- Improved wastewater treatment (\$\$)
- Greener drugs (faster breakdown)



# Reducing Pharmaceuticals in Water: A Need for Collaboration

- Complex problem that requires a collaborative solution
- DEC working with US EPA, other states, other NYS Agencies
- Opportunities to work with manufacturers, dischargers, institutions, pharmacies...



# Reducing Pharmaceuticals in Waters: Initial DEC Actions

- **Pharmaceuticals Work Group**
- **Roundtable on Managing Unused Pharmaceuticals in NYS**
- **Inter-Agency Work Group on Managing Pharmaceuticals in Hospitals and Institutions**
- **Commissioner's Press Release: Do Not Flush Campaign**
- **Website: [www.dontflushyourdrugs.net](http://www.dontflushyourdrugs.net)**



# **Initial DEC Actions:**

## **Pharmaceuticals Work Group**

- **Winter 2008**
- **Led by Division of Water**
- **Chair: Scott Stoner; Co-Chair: Ken Kosinski**
- **Multi-program: Water, Solid and Hazardous Materials, Public Affairs and Education, Communications, Pollution Prevention, Policy Office, and NYS Dept. of Health**
- **Initially focusing on source control – reduce flushing of unused medications**



# **Initial DEC Actions:**

## **Roundtable Discussion on Managing Unused Pharmaceuticals in NYS**

- **May 15, 2008**
- **Sponsored by NYSDEC and NYSDOH**
- **Lead off by Judith Enck**
- **Panel discussions on pharmaceuticals generated by:**
  - **Households**
  - **Hospitals and other institutions**
- **Synopsis to be posted online soon**



# **Initial DEC Actions:**

## **Roundtable Discussion on Managing Unused Pharmaceuticals in NYS**

### **Key Messages: Households**

- **Pilot programs proving the feasibility of different models of collection of residential pharmaceuticals**
- **Management of controlled substances creates a significant barrier to efficient, cost-effective programs**



# **Initial DEC Actions:**

## **Roundtable Discussion on Managing Unused Pharmaceuticals in NYS**

### **Key Messages: Hospitals and Institutions**

- **Flushing common and widespread**
- **Pharmaceutical waste volume differs by type of institution**
- **BMPs developed and tested but some are complicated and costly; RCRA Hazardous and Controlled Substances Issues**



# **Initial DEC Actions:**

## **Inter-Agency Work Group on Pharmaceutical Disposal in Institutions**

- **NYSDEC, NYSDOH, and NYS Dept of Education**
- **Objective: Develop new guidance on pharmaceuticals disposal in institutions**
- **Eliminate regulatory barriers**
- **Work with regulated community – ensure guidance is workable**
- **Educate regulated community on new protocols**



# Initial DEC Actions: Commissioner's Press Release and Website

- Press Release August 8, 2008
- Don't Flush Your Drugs Campaign
- Website: [www.dontflushyourdrugs.net](http://www.dontflushyourdrugs.net)
- Technical background on the issue
- Guidance for proper household disposal



# Recent Legislation - Pharmaceuticals

- **S7560A**
- **Effective March 24, 2009**
- **Amends ECL**
- **Directs DEC in consultation with DOH to develop and implement a public information program on the proper disposal of drugs**
- **Codifies what we are already doing...**



# Reducing Pharmaceuticals in Water: *Status Check*

- Complex and challenging issue
- Initial DEC actions focused on source control: reduce the flushing of unused medications
- Next steps
  - education campaign
  - institutions
  - continued research – occurrence, toxicity, wastewater treatment
  - collaboration
  - push for “greener” drugs



# Reducing Pharmaceuticals in Water: An Opportunity for Collaboration

- **Invite the business community to help by voluntarily reducing discharges of pharmaceuticals**



# Heads Up – Article 35 and Part 659

## Household Cleansing Products

- **Set very low (trace) limits on NTA and Phosphorus in Household Cleansing Products sold in NYS**
- **“Household” broadly defined to include commercial**
- **659.6 addresses reporting of product content and health studies information to DEC**
- **Earthjustice sent letters to manufacturers/retailers notifying them of 659.6; threatening legal action**
- **Please make sure you are in compliance with Article 35 and Part 659!**



# Contact Information

- Pharmaceuticals
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