

Wastewater Discharge Concerns for Hospitals

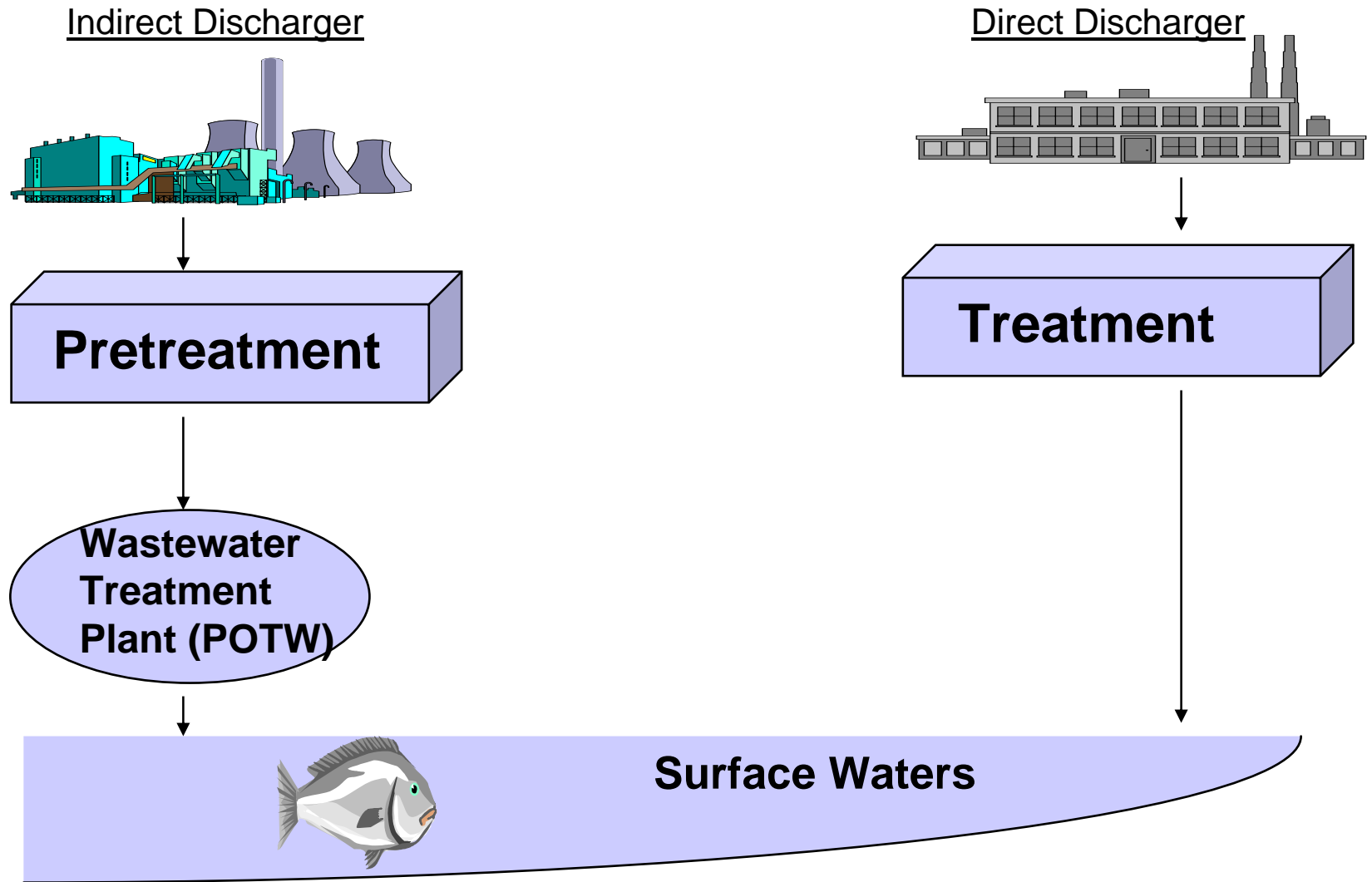


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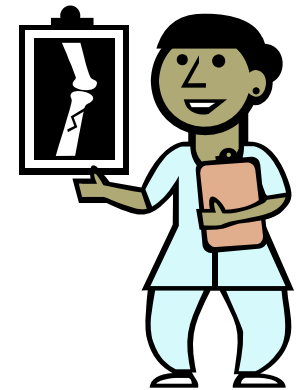
Tennessee Division of Water
Pollution Control

What is Pretreatment?



Common Pollutants from Hospitals

- Silver from X-rays and mammograms
- Oil and grease and BOD from cafeterias
- On-site laundry facility
- Flushing unused pharmaceuticals



Endocrine Disruptors

- A natural or synthetic chemical that when taken up by an organism mimics, modifies or blocks the actions of hormones and disrupts normal physiology.

“Overt endocrine disruption in fish does not appear to be a ubiquitous environmental phenomenon, but rather more likely to occur near sewage treatment plants, pulp and paper mills, and in areas of high organic chemical contamination. However, more widespread endocrine disruption can occur in rivers with smaller flows and correspondingly large or numerous wastewater inputs.”

-National Oceanic and Atmospheric Administration Technical Memorandum

June 2002



Basic Information

- Pharmaceuticals and personal care products (PPCPs) thought to contribute to or cause endocrine disruption
- Feb. 2007 White House Office of National Drug Control Policy issued guidance on disposal of prescription drugs
- EPA currently studying management of unused pharmaceuticals at health care facilities



Update on EPA's Clean Water Act Review of the Management of Unused Pharmaceuticals for the Health Services Industrial Sector



Unused Drugs at Nebraska Veterans Home, Grand Island, NE © 2007

Stakeholder Outreach

Presentation Overview

- Provide background on:
 - Clean Water Act (CWA), effluent guidelines, and effluent guidelines planning
 - Overview of scope and schedule for Health Services Detailed Study.

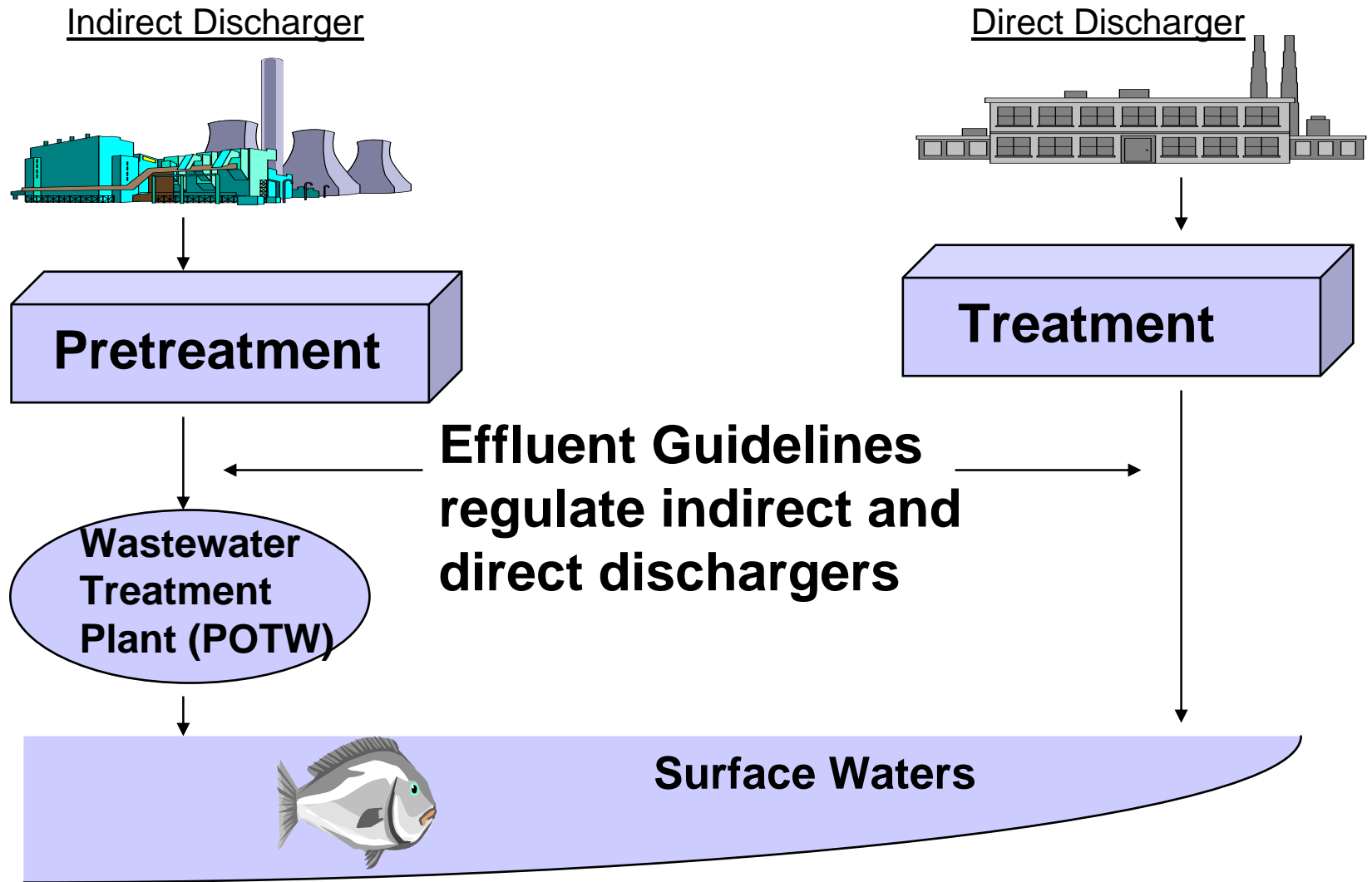
- Provide update on current data gathering activities:
 - This presentation will focus on the issue of current management of unused pharmaceuticals at long-term care facilities and hospitals.



Regulation of Discharges to POTWs & Surface Waters

- The major environmental law governing surface water discharges is the Clean Water Act (CWA).
- EPA, States, and local city pretreatment programs implement the CWA through publication of regulations and discharge permits for point sources of wastewater pollution.
- Any discharge to the surface waters or municipal wastewater treatment plants (“POTWs”) must comply with the more stringent of the technology-based standards (“effluent guidelines”) and local site specific effluent limitations (“local limits”).

What are Effluent Guidelines (ELGs)?



Effluent Guidelines Planning

- The CWA requires EPA to revise its effluent guidelines for indirect dischargers “from time to time, as control technology, processes, operating methods, or other alternatives change.”
- The CWA also requires EPA to “promulgate pretreatment standards for pollutants not susceptible to treatment by POTWs or that would interfere with the operation of POTWs.”
- EPA publishes its review of indirect dischargers and priorities in a Federal Register notice and solicits public comment.
- EPA published its latest review and identification of priorities in a notice on 21 December 2006 (“Final 2006 Plan”)
 - More information at: <http://www.epa.gov/guide/plan.html>

**ENVIRONMENTAL PROTECTION
AGENCY**

[EPA-HQ-OW-2004-0032; FRL-8259-1]
RIN 2040-AE76

**Notice of Availability of Final 2006
Effluent Guidelines Program Plan**

AGENCY: Environmental Protection
Agency (EPA).

ACTION: Notice of Final 2006 Effluent
Guidelines Program Plan.

SUMMARY: EPA establishes national
technology-based regulations known as
effluent guidelines and pretreatment
standards to reduce pollutant discharges
from categories of industry discharging
directly to waters of the United States or
discharging indirectly through Publicly
Owned Treatment Works (POTWs). The
Clean Water Act (CWA) sections 301(d),
304(b), 304(g), and 307(b) require EPA
to annually review these effluent
guidelines and pretreatment standards.

Final 2006 Plan

Health Services Industry Detailed Study

- **What is the Scope of the Study?**

- Looking to highlight good voluntary practices on an industry that may have significant discharges of consequence to the environment
- Focus is primarily on
 - Unused or leftover and expired pharmaceutical discharges to municipal wastewater treatment plants from hospitals, long-term care facilities, and veterinarians

- **What are We Studying?**

- Current industry practices, guidance and regulatory requirements, best management practices (BMPs)
- Source, and pass through or inhibition, associated with these discharges at municipal wastewater treatment plants

- **Who are our Stakeholders?**

- Industry Groups, States, Other Federal Agencies, and Other Local Governments.

Health Services Industry Detailed Study

- **Current Efforts – Unused Pharmaceuticals**
 - Outreach to better understand the issues surrounding pharmaceutical discharges from long-term care facilities, hospitals, and veterinarians
 - Within EPA, Other Federal Agencies, and Industry Groups
 - Identifying current management of unused pharmaceuticals at long term care facilities, hospitals, and veterinarians
 - Summarizing federal, local, and regional requirements, guidance, and voluntary initiatives
 - Summarizing Best Management Practices (BMPs) at facilities
- **Schedule:**
 - FY2008: Complete data collection for identifying current industry practices, existing guidance/requirements, and BMPs
 - FY2010: Estimate pollutant loadings, identify possible best practices for controlling pollutant discharges and associated costs, and final report.

Health Services Industry Detailed Study: Data Needs

- Identification of any policies, procedures or guidelines that govern the disposal of unused pharmaceuticals from hospitals, nursing, long-term care, re-habilitation, and personal care facilities, and veterinary care facilities.
- Identification of the main factors that drive current disposal practices and any barriers preventing the reduction or elimination of unused pharmaceuticals to wastewater treatment plants and/or surface waters.
 - In particular, EPA solicits comment on the extent that the Controlled Substances Act (21 U.S.C. § 801 et. seq.) complicates the design of an efficacious solution to drug disposal
- EPA solicits data on how municipal wastewater treatment plants are currently controlling disposal of unused pharmaceuticals via wastewater.

Health Services Industry Detailed Study: Data Needs

- Quantitative information or tracking sheets for the past year on the disposal of unused pharmaceuticals via the toilet, drain, or sewer, from hospitals and long-term care facilities.
- Information on any best management practices (BMPs) that are available to control or eliminate the disposal of unused pharmaceuticals to wastewater treatment plants.
- Qualitative and quantitative data on the effectiveness and annualized costs of BMPs that health service facilities use to control or eliminate the discharge of unused pharmaceuticals from their wastewater.
 - EPA is also interested in obtaining information on the current costs (including labor) associated with disposal of unused pharmaceuticals.

Health Services Industry Detailed Study: Data Collection

- EPA found little publicly available data on the amount of unused pharmaceuticals being disposed into water
- How can you help?
 - Suggest publicly available sources
 - Provide data relevant to your operation
- EPA is noticing a mandatory information request
 - Authority in Section 308 of the Clean Water Act
 - Solicit information from selected facilities, want to know amounts discharged, costs, and BMPs
- Other suggestions?

Identification of Schedule and Next Steps

- Final 2006 Plan Published 21 December 2006
 - Identified Health Services sector for Detailed Study
- Status of Health Services Detailed Study Published with the Preliminary 2008 Plan (October 2007)
- Stakeholder Teleconferences (Fall/Winter 2007)
- Site Visits (Spring/Summer 2008)
- Preliminary Final Report of Health Services Detailed Study Published with the Final 2008 Plan (August 2008)
- Information Collection Request (Spring 2009)
- Final Report Published with the 2010 Plan (October 2010)



For More Information...

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Please contact her if you would like to be included in the study.