



Using The Toxics Release Inventory (TRI) To Encourage Community Involvement



2015 EPA Community Involvement Training Conference
Track 1 – Where to Begin: Creating and Maintaining Effective Community Involvement

Where to Begin:



Creating Community Involvement

- Success in motivating a community to become active in bringing environmental change, requires **creating awareness of what needs to change.**
- The starting point for any community leader who is determined to create effective community involvement is **proving the need for change.** ¡No one will ever change what they can't measure!
- Therefore, **finding the right tool to measure change** is key in creating community involvement. The Toxics Release Inventory is one of those tools and its available free of charge.



Key questions that TRI can answer that will help encourage Community Involvement:



*Are industries in my town **increasing** or **reducing** the amount of chemicals they release to the environment?*



*What are the **top chemicals released** in my town?
How much is being released and **by whom**?*



*Does the factory near my daughter's school release **cancer-causing chemicals**?*

EPA's Toxics Release Inventory (TRI)
can help you find the answers.

Toxics Release Inventory (TRI)



What is the Toxics Release Inventory (TRI)?

- TRI is a source of information that can help you learn about toxic chemical releases from certain facilities **in your neighborhood.**
- TRI can tell you about:



Releases



Waste transfers



Recycling

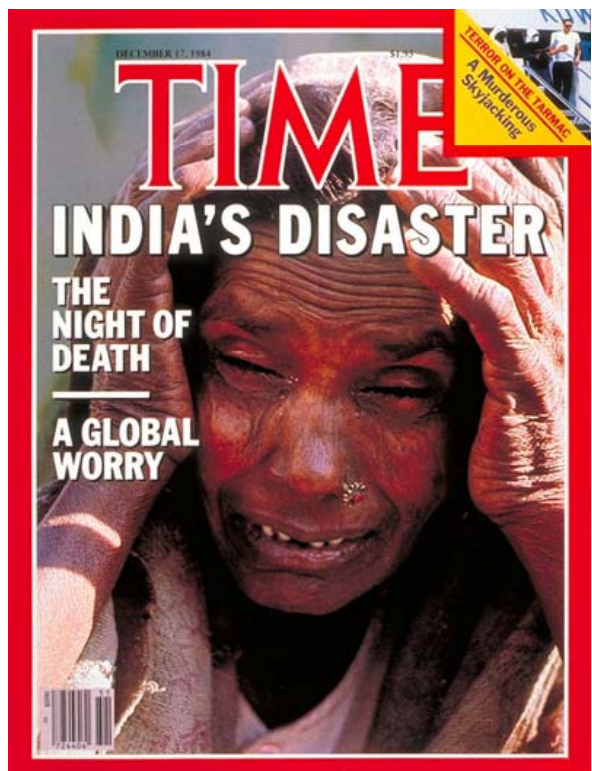


Pollution prevention

And much more!!!



Why was the Toxics Release Inventory created?



December 2-3, 1984

Bhopal, India methyl isocyanate gas disaster:

- ❖ More than 2,200 dead
- ❖ Approximately 15,000 more people have died since the accident due to long-term health effects.
- ❖ More than 150,000 people were treated at hospitals and clinics in Bhopal and surrounding communities.

Toxics Release Inventory (TRI)

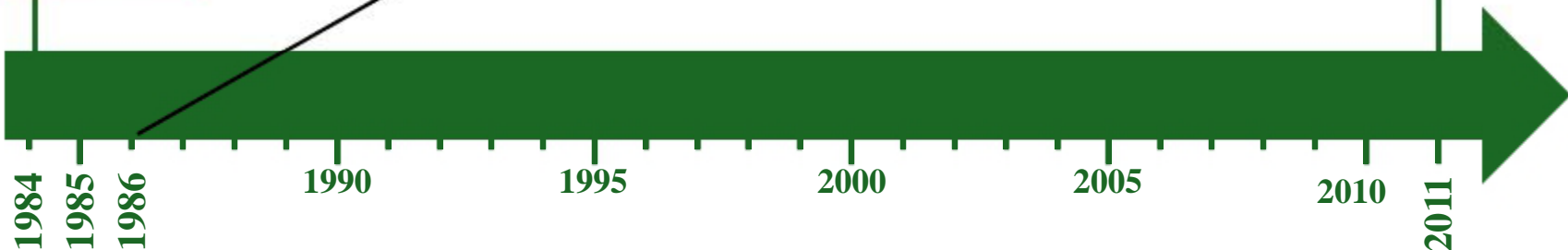


Time Line - Toxics Chemical Release Inventory

Bhopal, India release



1986 Congress passed
the EPCRA law



Institute,
West Virginia
release

"Emergency Planning and
Community Right to Know Act"

Emergency Planning and Community Right to Know Act (EPCRA)



EPCRA

❖ **Emergency planning (Section 301-303)**

- Development of Emergency Response Plans
 - Local Emergency Planning Committees (LEPC)
 - State Emergency Response Commission (SERC)

❖ **Emergency release notification (Section 304)**

- Facilities must immediately report release into the environment of an extremely hazardous substance at or over reportable quantity

❖ **Hazardous chemical storage reporting (Sections 311-312)**

- Facilities provide information on chemical quantity stored to the SERC, LEPC, and local fire department.

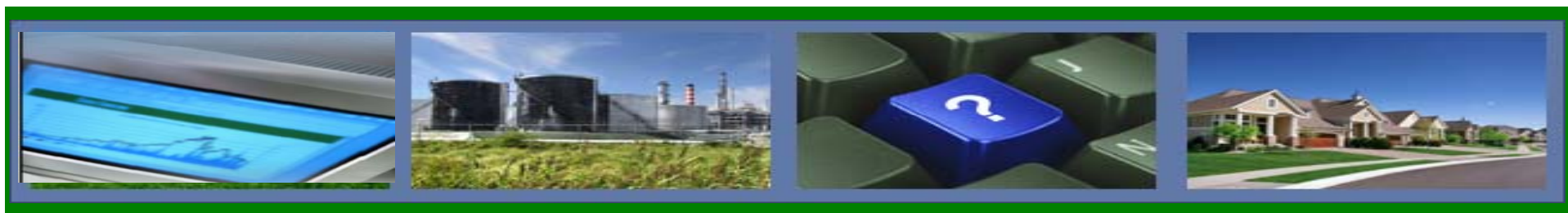
❖ **Toxic Chemical Release Inventory “TRI” (Section 313)**

- Regulated facilities provide release and waste management information for over 650 chemicals



Video: TRI National Analysis:

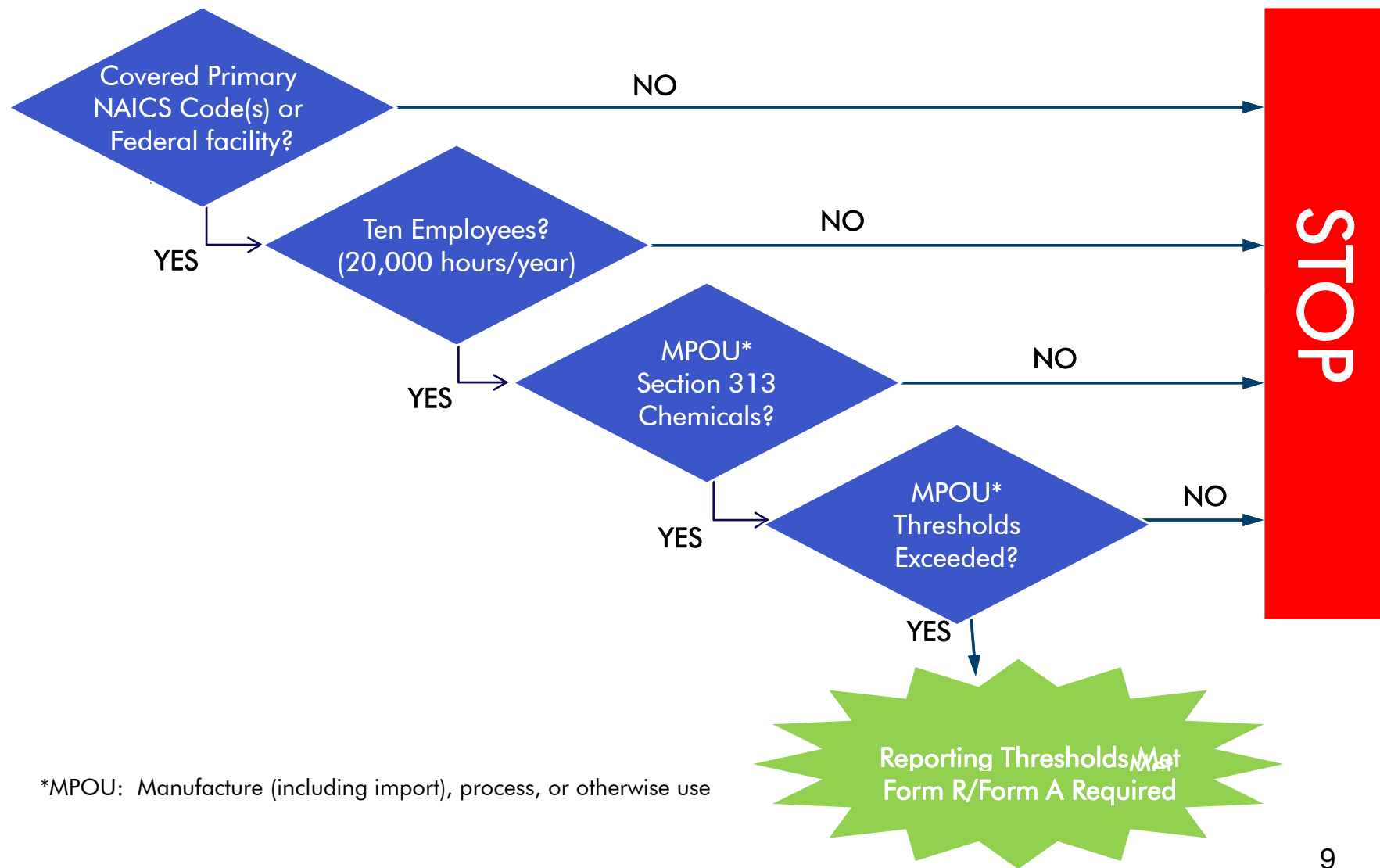
<https://www.youtube.com/watch?v=p9y18YUVL9w>



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Who Needs to Report to TRI?



Industrial Sectors Covered



Industrial Sector	Notes
Manufacturing	Facilities engaged in the mechanical or chemical transformation of materials or substances into new products
Metal mining	Not including metal mining services, and uranium, radium, and vanadium ores
Coal mining	Not including coal mining services
Electrical utilities	Limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce
Treatment, Storage, and Disposal facilities	Limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C, 42 U.S.C. Section 6921 et seq.
Solvent recovery services	Limited to facilities primarily engaged in solvent recovery services on a contract or fee basis
Chemical distributors	Facilities engaged in the wholesale distribution of chemicals and allied products
Petroleum bulk terminals	Facilities engaged in the wholesale distribution of crude petroleum and petroleum products from bulk liquid storage facilities
Federal facilities	Federal facilities (covered by Executive Order 13423)

TRI Chemical Thresholds



A facility meeting all applicability criteria must file a Form R report for a Section 313 chemical if the facility:

- Manufactured or Processed more than **25,000** pounds of the chemical in the reporting year, or
- Otherwise Used more than **10,000** pounds of the chemical in the reporting year, or
- **Persistent, Bioaccumulative and Toxic (PBT) chemicals** are subject to lower thresholds of **100** pounds, **10** pounds or **0.1 grams** (for dioxins) in the reporting year.





What is a “release”?

- A **"release"** refers to different ways that toxic chemicals from industrial facilities enter the environment:



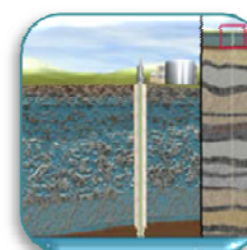
Air



Water



Land



**Underground
Injection**

- The likelihood of residents coming into contact with toxic chemicals depends on the type of release and other factors.



What information is Reported to TRI?

- ❖ **On-site (at facility) releases of TRI chemicals to:**
 - Air, Water, Land (e.g. landfills) and Underground Injection
- ❖ **Off-site transfers**
 - Transfers of toxic chemical wastes to disposal sites
- ❖ **Other waste management**
 - Recycling
 - Treatment
 - Energy Recovery
- ❖ **Pollution Prevention Activities**





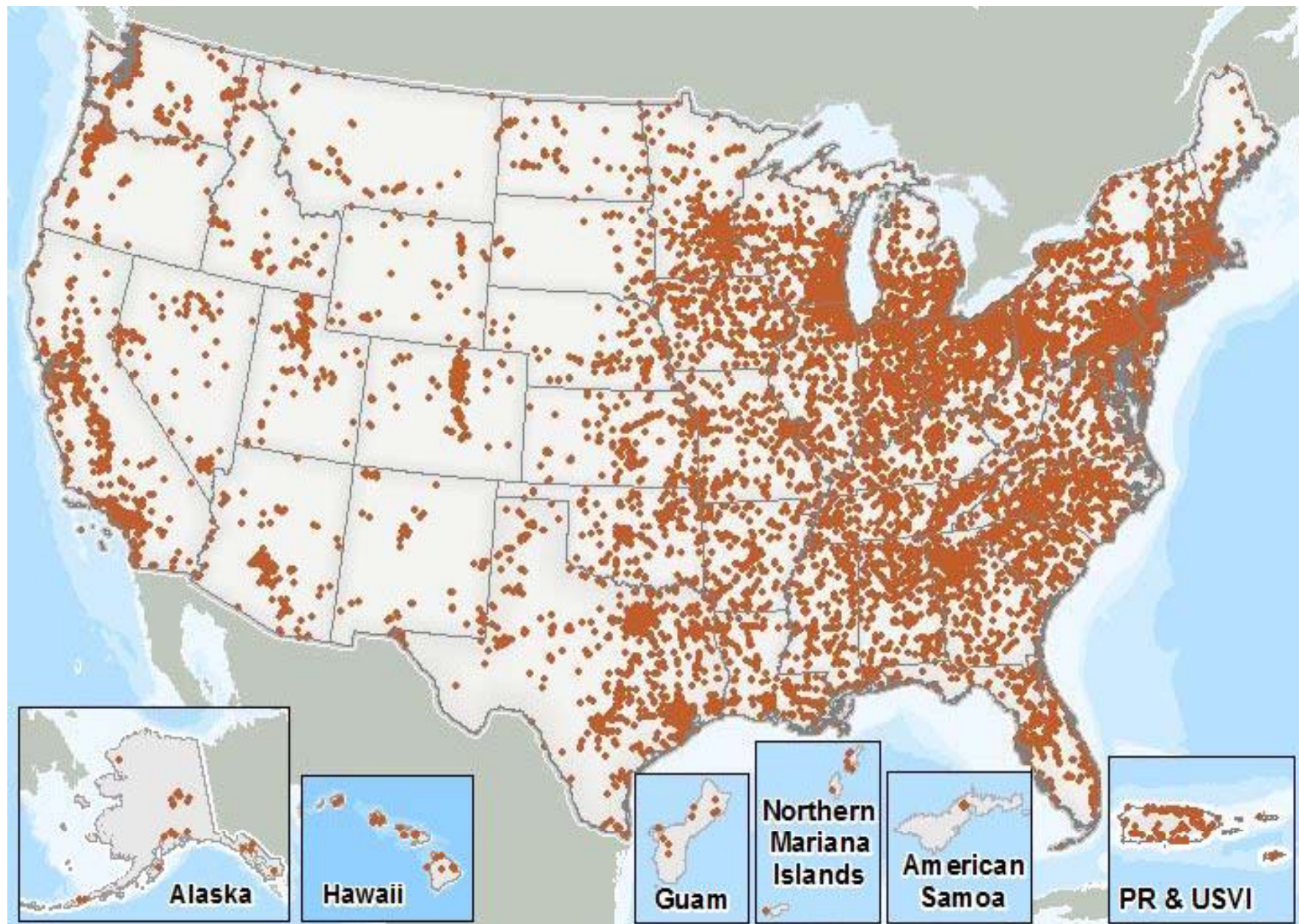
TRI information is only one piece of the puzzle

TRI provides important information about toxic chemical releases in your community, but seeing the whole picture requires additional information about other environmental releases, compliance data, air monitoring data, permits, and more. Other information to consider includes:

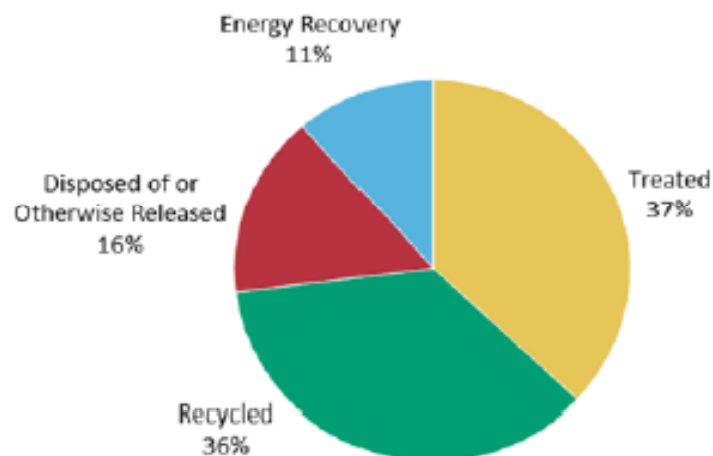
- ☐ Motor vehicle emissions
- ☐ Gasoline stations
- ☐ Dry cleaners
- ☐ Lead paint in homes
- ☐ Car painting shops
- ☐ Drum burnings/Forest fires



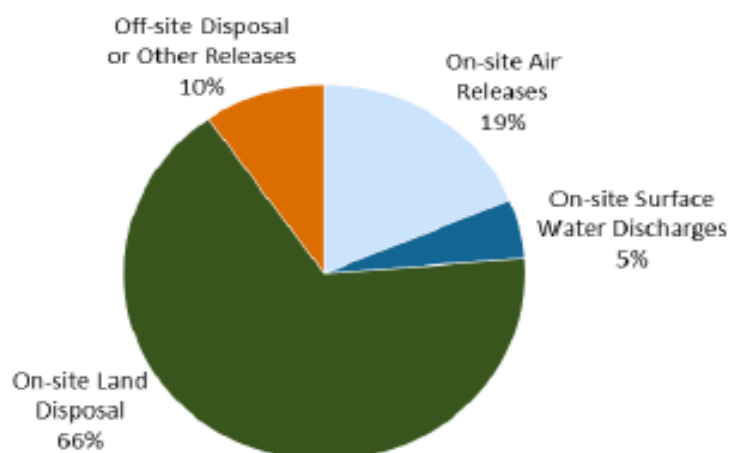
Geographic Distribution of TRI-Reporting Facilities in 2013



Production-Related Waste Managed, 2013
25.63 billion pounds



Total Disposal or Other Releases, 2013
4.14 billion pounds



Quick Facts for 2013

Number of TRI Facilities: 21,598

Production-Related Waste Managed:

25.63 billion lb

- Recycled: 9.23 billion lb
- Energy Recovery: 2.91 billion lb
- Treated: 9.49 billion lb
- Disposed of or Otherwise Released: 4.00 billion lb

Total Disposal or Other Releases:

4.14 billion lb

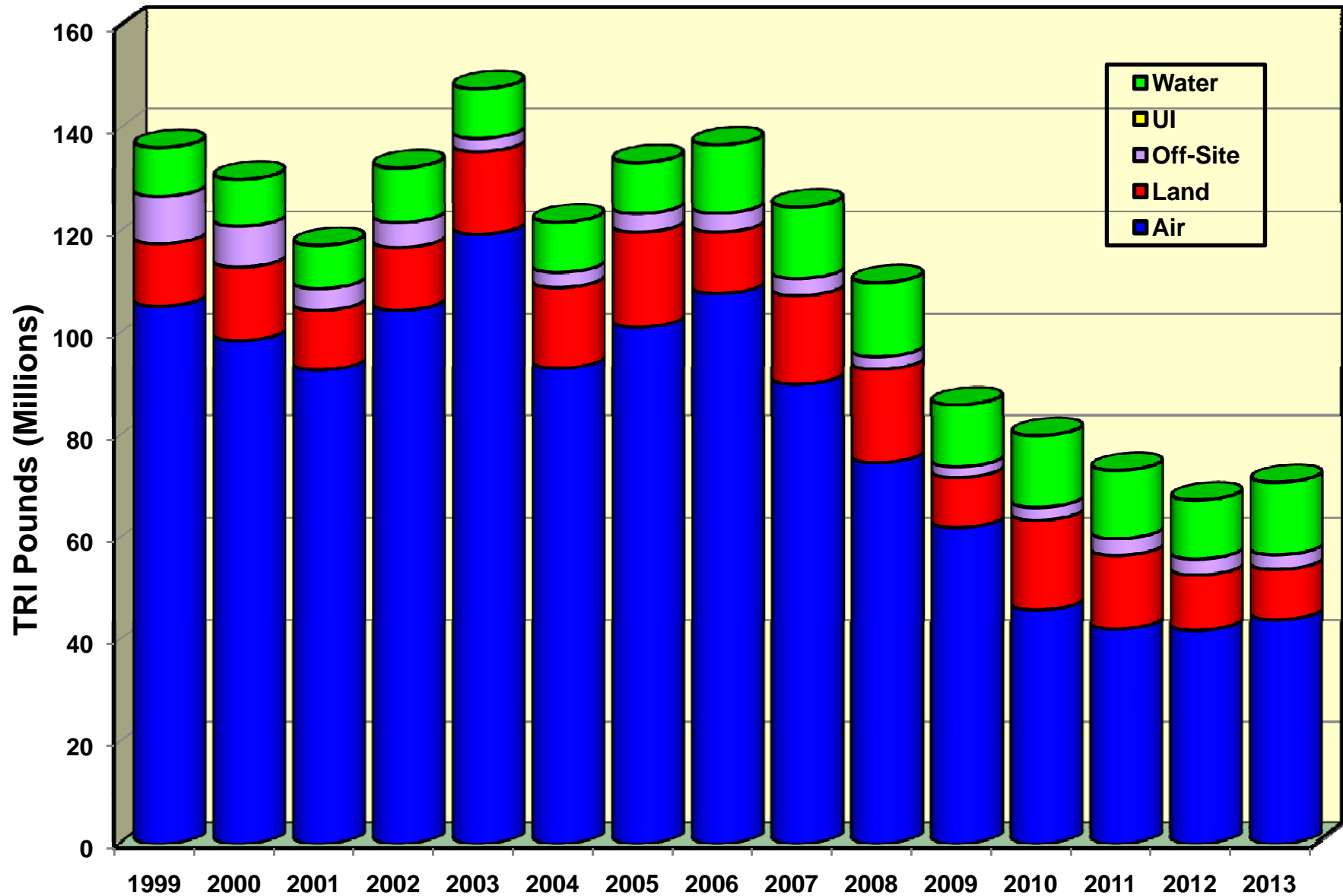
- **On-site:** **3.74 billion lb**
 - Air: 0.77 billion lb
 - Water: 0.21 billion lb
 - Land: 2.75 billion lb
- **Off-site:** **0.41 billion lb**

Distribution of 2013 Georgia Total TRI Releases by Media

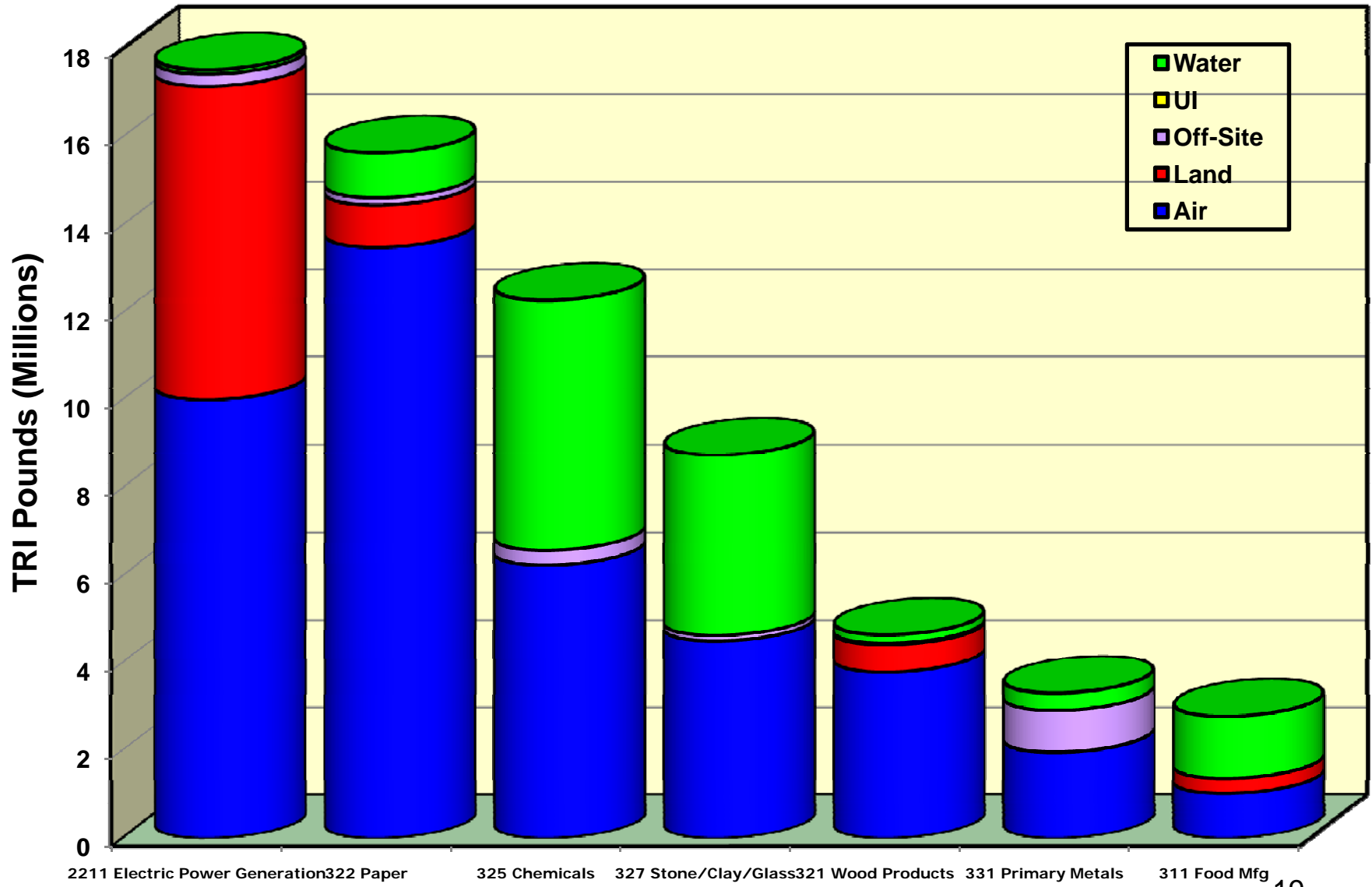


Total On- and Off-site Disposal or Other Releases (71.4 Million Pounds)

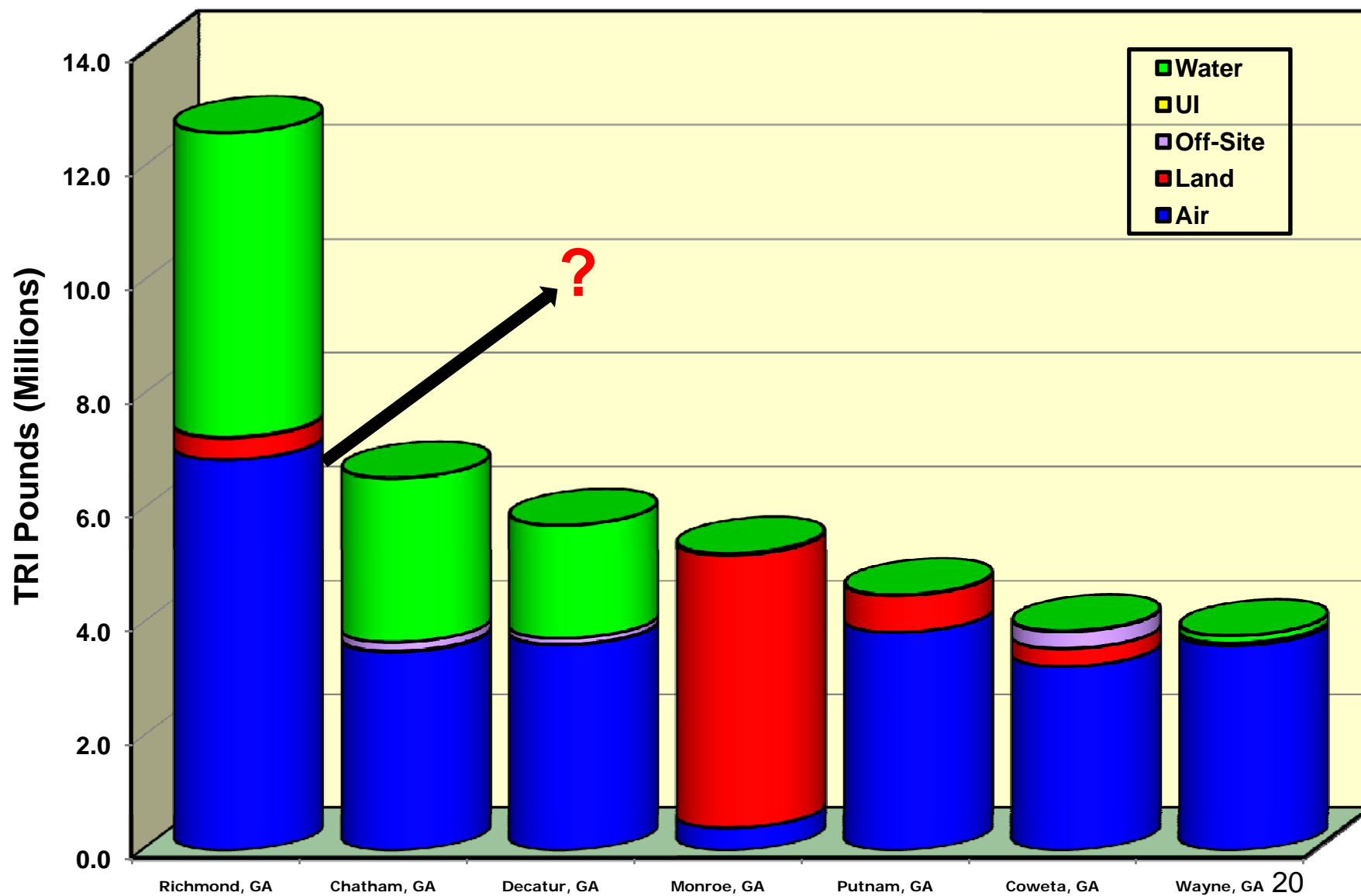
Georgia 1999 - 2013 TRI Releases by Media



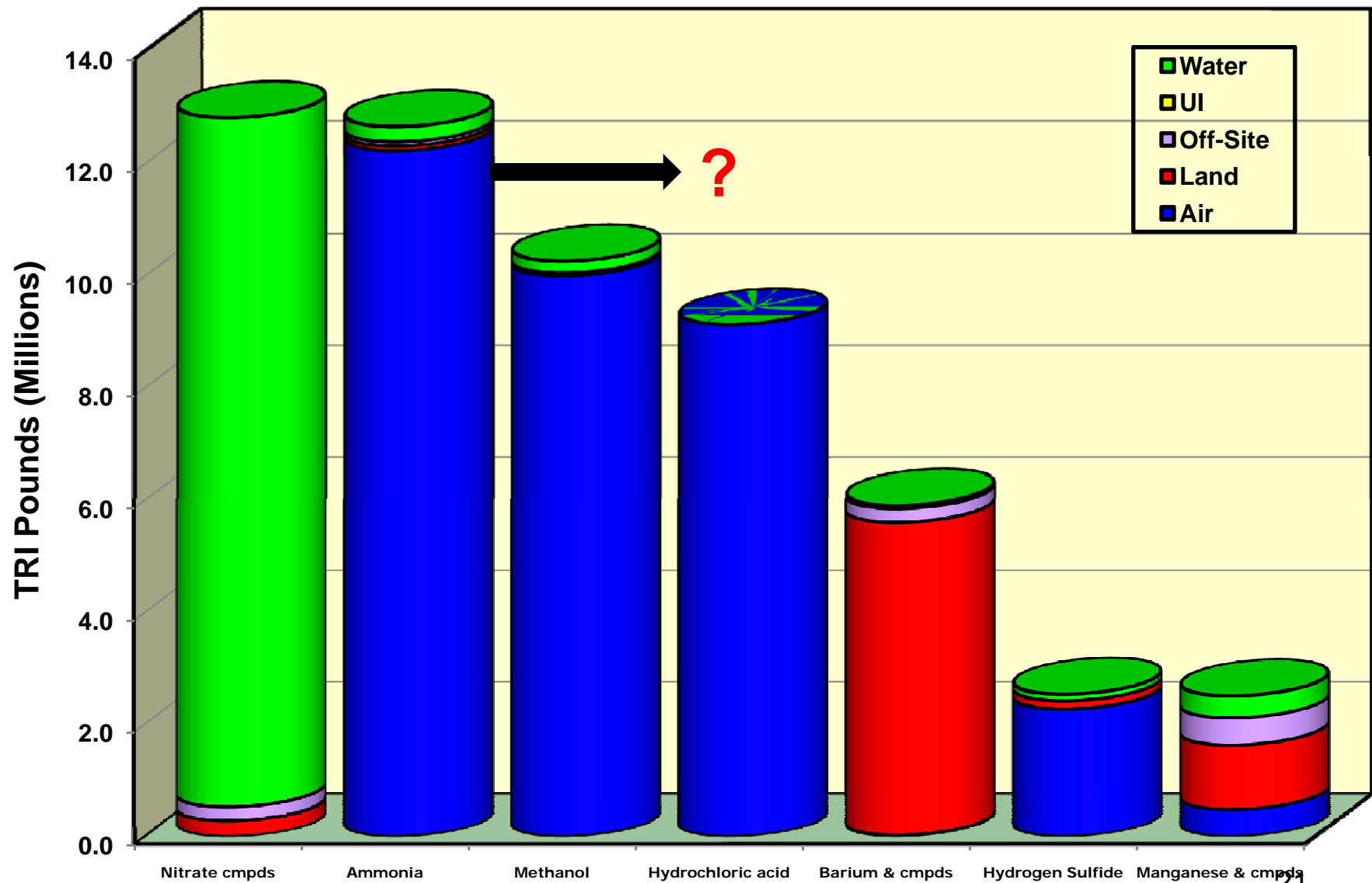
2013 Georgia TRI Releases by Media Top Seven Industries



2013 Georgia TRI Releases by Media Top Seven Counties



2013 Georgia Top Seven TRI Chemicals by Media





Case Study - Part 1



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Pollution Prevention (P2) Search Tool





Creating Community Involvement by Using the Pollution Prevention Search Tool

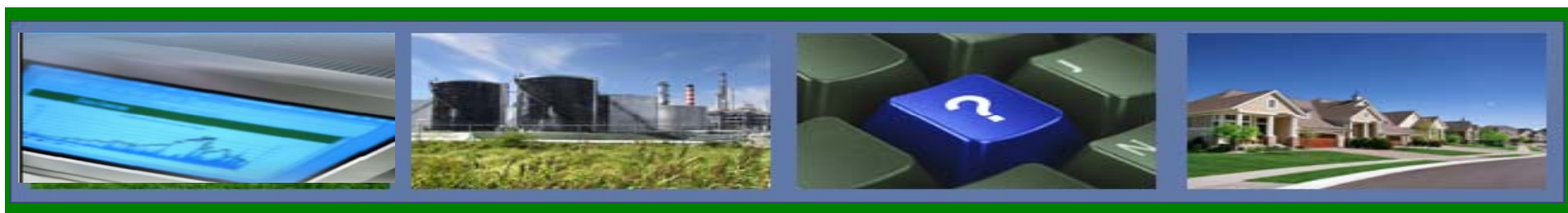
- Knowing which toxic chemicals are being released in your community is the starting point, **but doesn't guarantee change.**
- Positive environmental changes occur in our communities when effective environmental practices are **identified and implemented.**
- EPA has developed the ***Pollution Prevention Search Tool*** to help industry and community leaders identify effective environmental practices that other facilities have used to reduce the amount of toxic chemicals released into the environment.



Video:

Reporting Pollution Prevention to TRI:

<https://www.youtube.com/watch?v=wSrlff7NRfo>



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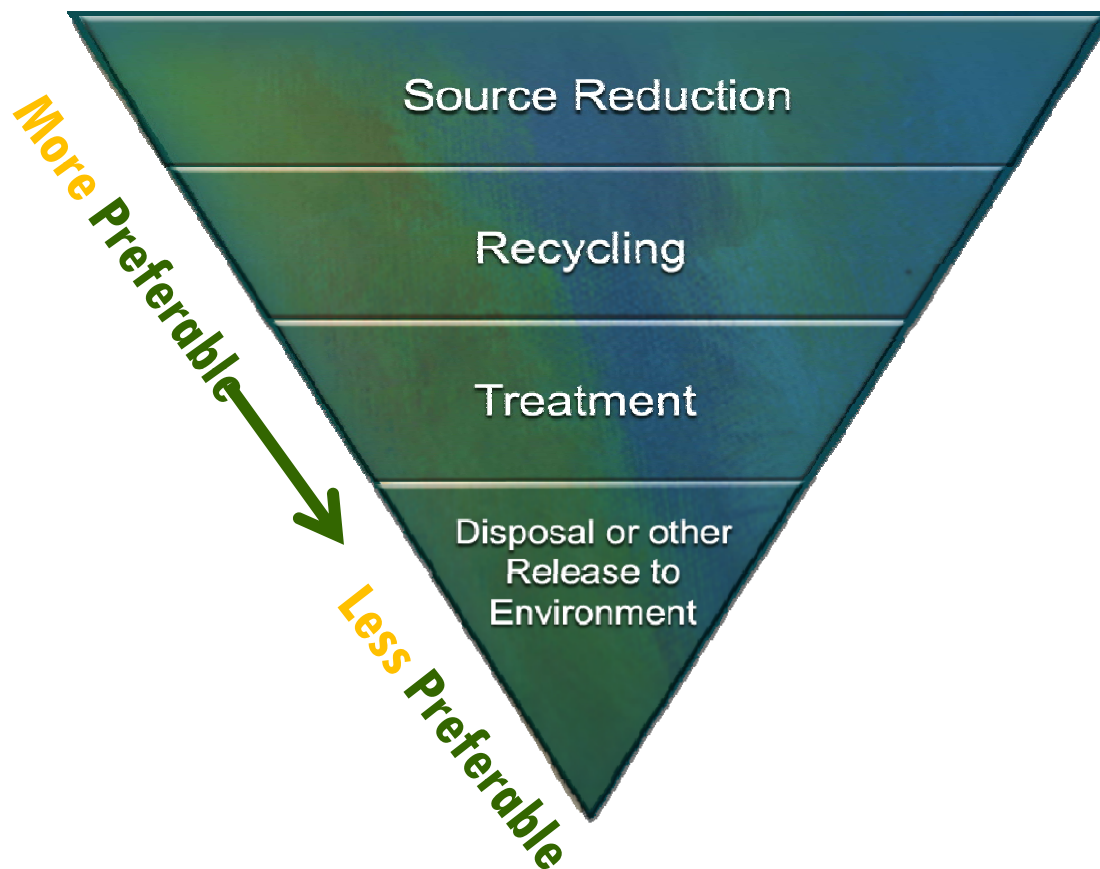
What is Pollution Prevention (P2)?

- Pollution Prevention is **reducing or eliminating waste at the source** by modifying production processes, promoting the use of nontoxic or less toxic substances, implementing conservation techniques, and reusing materials rather than putting them into the waste stream.
- **Source reduction** includes any practice which reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment; **prior to** recycling, treatment or disposal.

The Pollution Prevention Act



Pollution Prevention Hierarchy

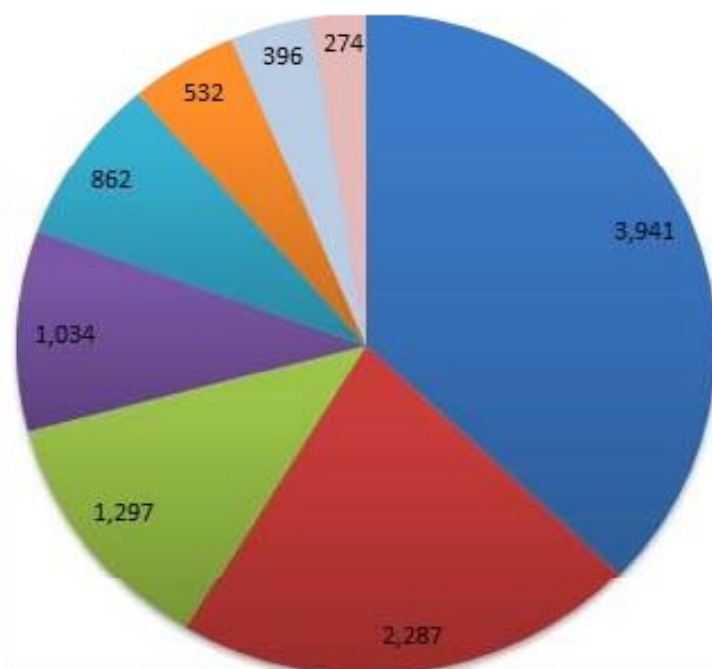


The preferred option is to prevent pollution at its source, but for waste that is generated, the preferred management methods are recycling, followed by burning for energy recovery, treatment and, as a last resort, disposing of the waste.

P2 Source Reduction Activities Reported to TRI:

For 2013, a total of 3,362 facilities (16% of all TRI facilities) reported initiating 10,623 source reduction activities. Good operating practices, process modifications, and spill and leak prevention were the activities reported most frequently.

Number of Activities Reported, 2013



To see examples of source reduction activities reported by TRI facilities, click on the color-coded legend next to the pie chart.

- >  Good Operating Practices (3,941)
- >  Process Modifications (2,287)
- >  Spill and Leak Prevention (1,297)
- >  Raw Material Modifications (1,034)
- >  Product Modifications (532)
- >  Inventory Control (862)
- >  Cleaning and Degreasing (396)
- >  Surface Preparation and Finishing (274)

program/pollution-prevention-p2-and-tri



Case Study - Part 2



<http://www.epa.gov/enviro/facts/tri/p2.html>



For More Information About TRI

- TRI Home Page <http://www.epa.gov/tri/>
- Envirofacts Website
<http://www.epa.gov/enviro/facts/tri/search.html>
- TRI Explorer Website
http://iaspub.epa.gov/triexplorer/tri_release.facility
- TRI Communities website
<http://www.epa.gov/tri/stakeholders/communities>
- myRight-To-Know website <http://myrtk.epa.gov/info/>



U.S. EPA Region 4 TRI Contacts



We Are Happy To Assist You!

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