



Emerging Contaminants Directorate

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DoD's Emerging Contaminants Program

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Presentation Overview

- ❖ **The Department of Defense's (DoD's) Interpretation of Emerging Contaminants**
- ❖ **Opportunities for Improving Risk Management (RM) Options at DoD**
 - ◆ Processes for Assessing and Managing Risks
 - ◆ 'Watch' and 'Action' Chemicals
- ❖ **EC Program Highlights**
 - ◆ Proactive Approach: What Program Managers (PMs) and Others Can Do
 - » Materials of Evolving Regulatory Interest Team (MERIT)
 - » Websites

National & International Interest in ECs

❖ Press

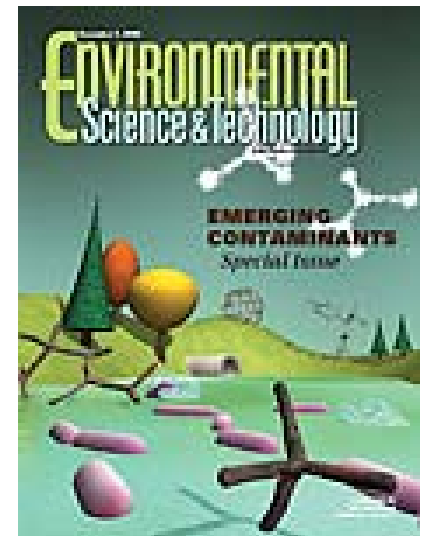
- ◆ ES&T Magazine - Dec 06
- ◆ National Geographic Magazine - Oct 06

❖ Conferences/Hearings/Reports

- ◆ AWRA Spring Conference - June 07
- ◆ USGS Survey of 139 streams in 30 states
 - » ECs found in 80% of streams
- ◆ Renewable Nat'l Resources Foundation Report

❖ Regulations/Mandates

- ◆ New Executive Order (January 24, 2007)
- ◆ European Union – REACH (June 1, 2007)

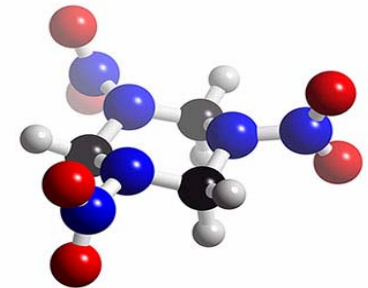


What Is an Emerging Contaminant?

At the Department:

Emerging Contaminants (ECs) are defined as

- ❖ Chemicals & materials with
 - ◆ Perceived or real threat to human health or environment
 - ◆ Either no peer reviewed health standard or an evolving standard
- ❖ May have
 - ◆ Insufficient human health data/science
 - ◆ New detection limits
 - ◆ New exposure pathways



How Can ECs Affect DoD?

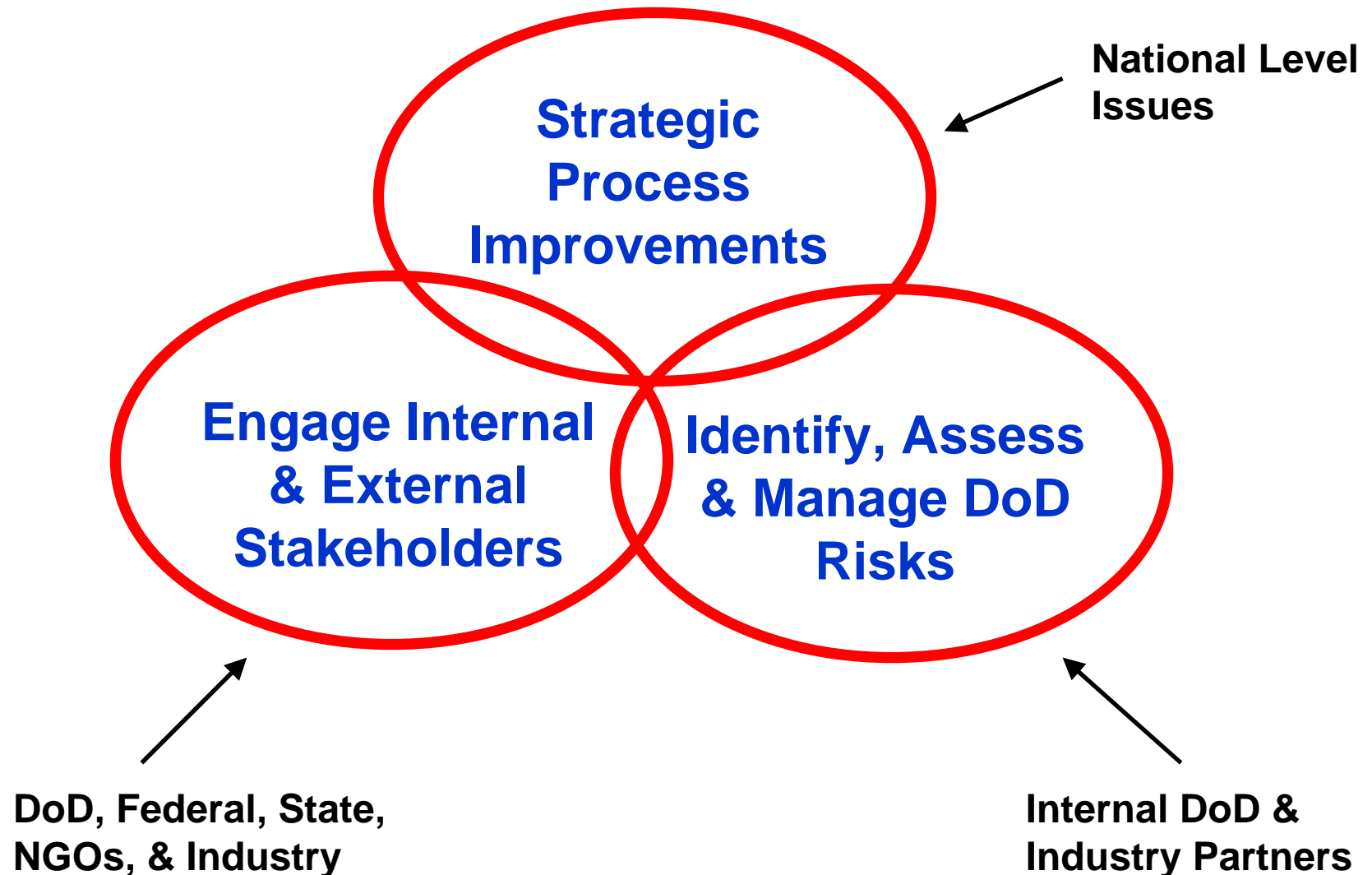
- ❖ Adverse health effects on operating forces, DoD employees, and/or public
 - ◆ Human health protection paramount
- ❖ Reduced training/readiness
 - ◆ Restrictions on use of ranges
- ❖ Restricted or non-availability of material
 - ◆ Adverse impact on mission-critical applications & industrial base
- ❖ Increased O&M and/or cleanup costs
 - ◆ Resource drain from mission needs

The Vision

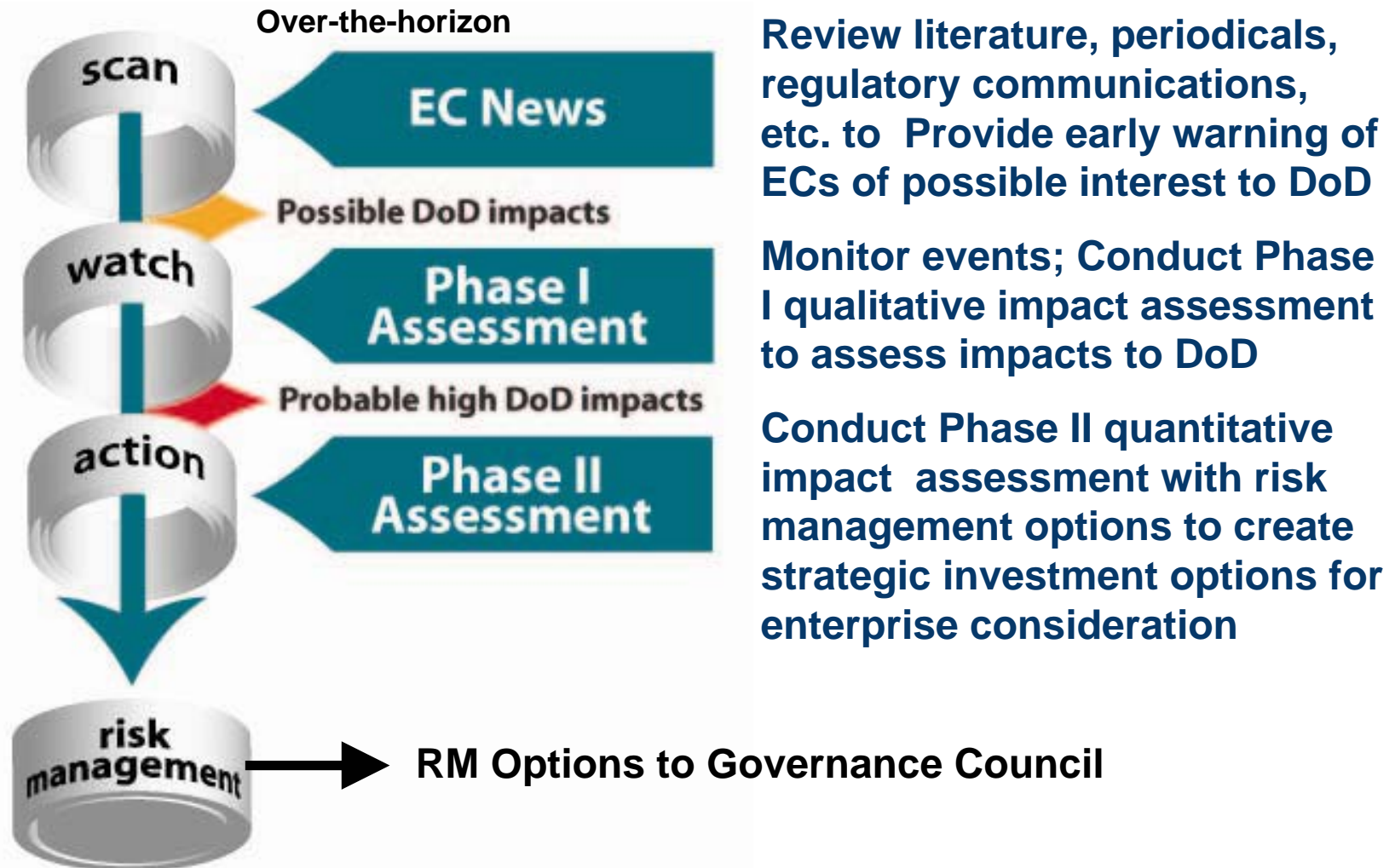
Imagine if the largest industrial complex in the nation could...

- ❖ ***Predict*** which chemicals it uses, or might use, pose human health and environmental risks and have an evolving regulatory status
- ❖ ***Develop*** a consensus evaluation of types & magnitudes of the risks in using/releasing such chemicals
- ❖ ***Develop*** risk management options and invest in high-payback actions
- ❖ ***Achieve and measure*** risk reduction

Strategic Priorities to Achieve the Vision


















EC “Scan-Watch-Action” Process



Phase I EC Impact Assessment

1. **Probability of Regulation/Re-regulation**

2. **Impact on DoD Functional Categories**

Environment Safety & Health	Readiness & Training	Acquisition	Production, O&M and Disposal	Cleanup
				
				
				

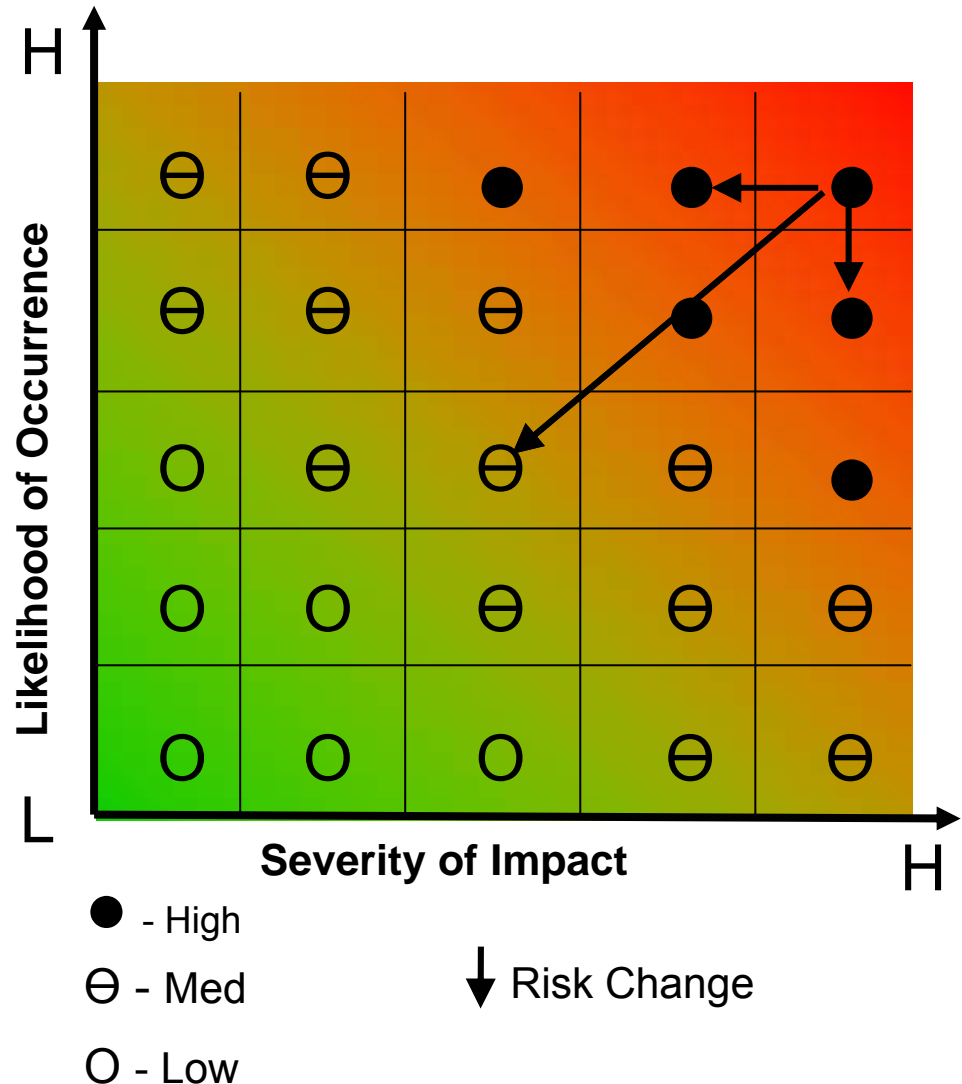
3. **Results**



- **Decision – Move to Action List?**
- **Initial Risk Management Options**

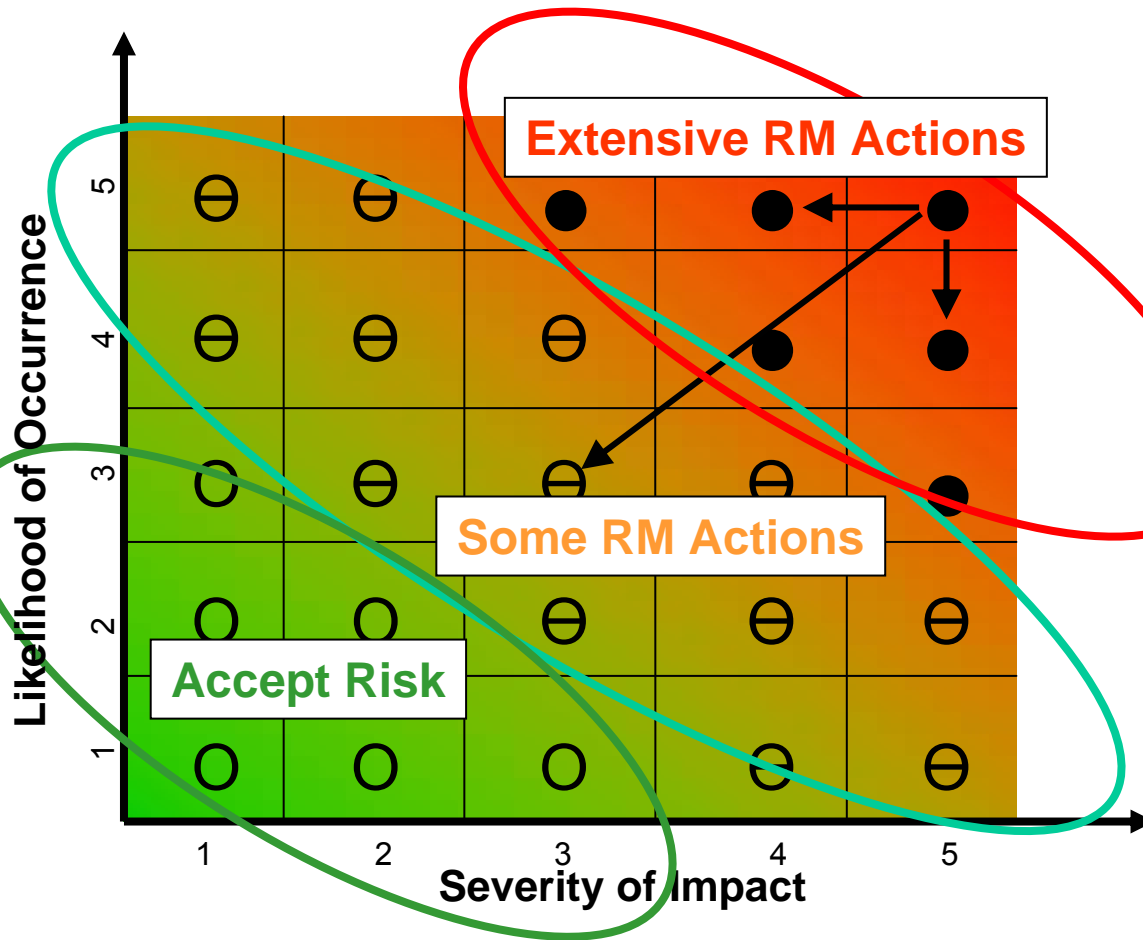
Plotting EC Risk to DoD

- High risk at top right
- Risk management actions move ECs to lower left... lower risk
- Seek to quantify risk reduction



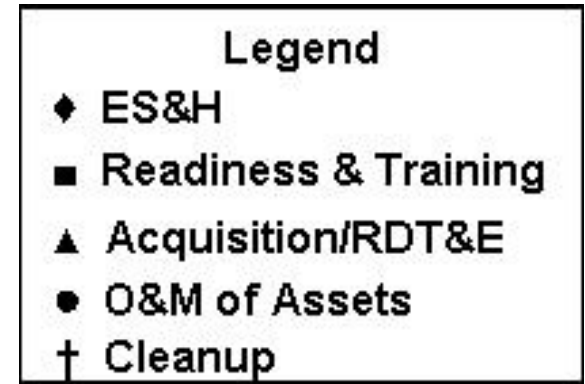
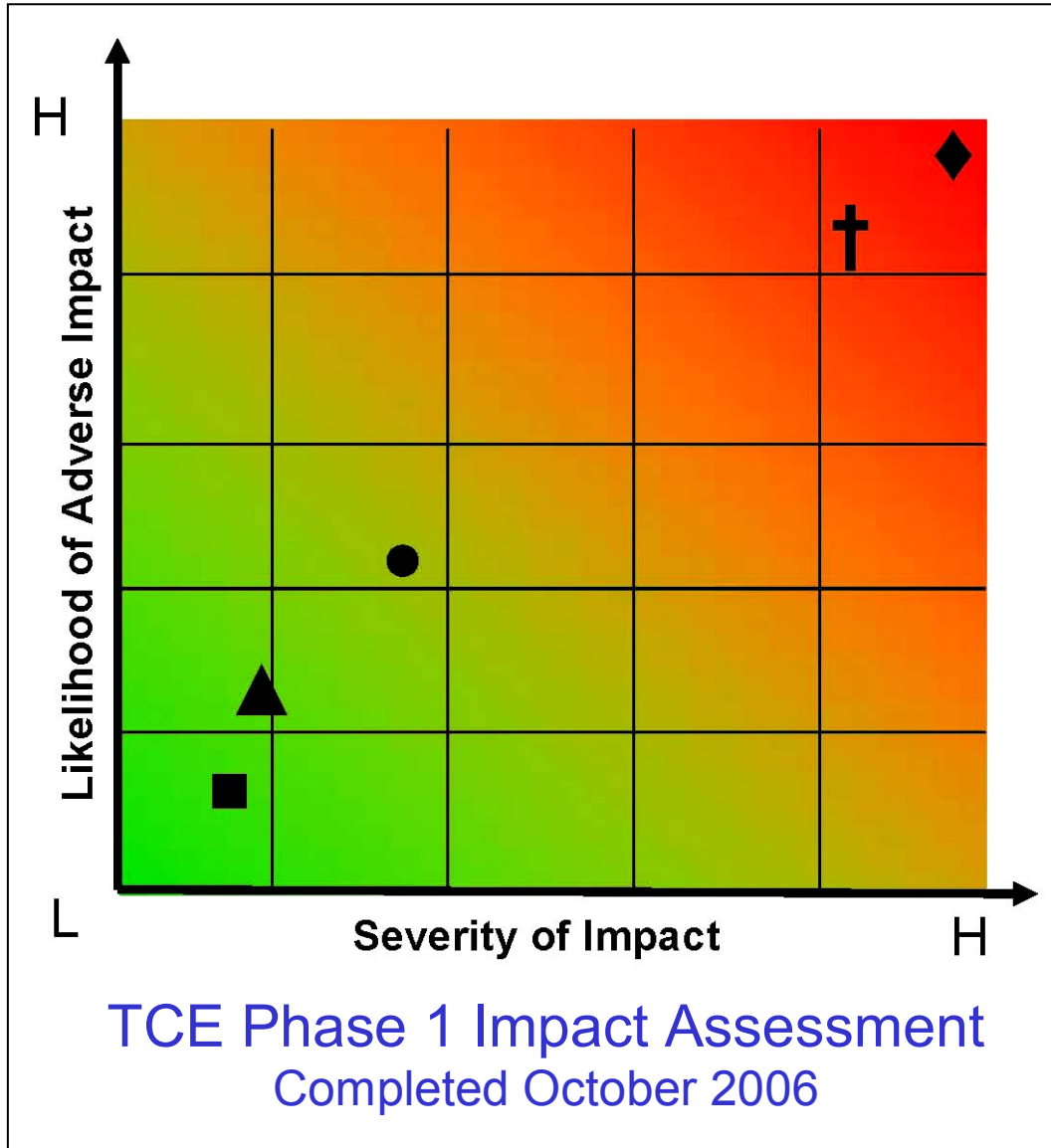
Integrated Risk Management (RM)

RM Options

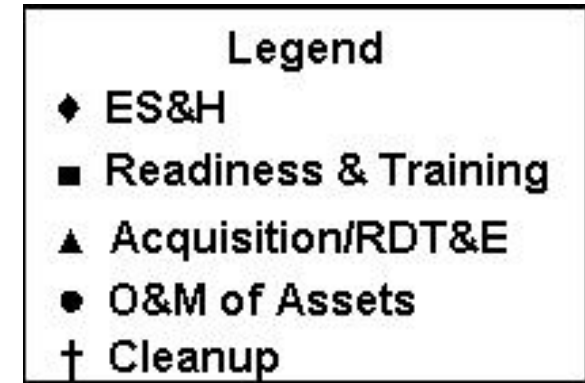
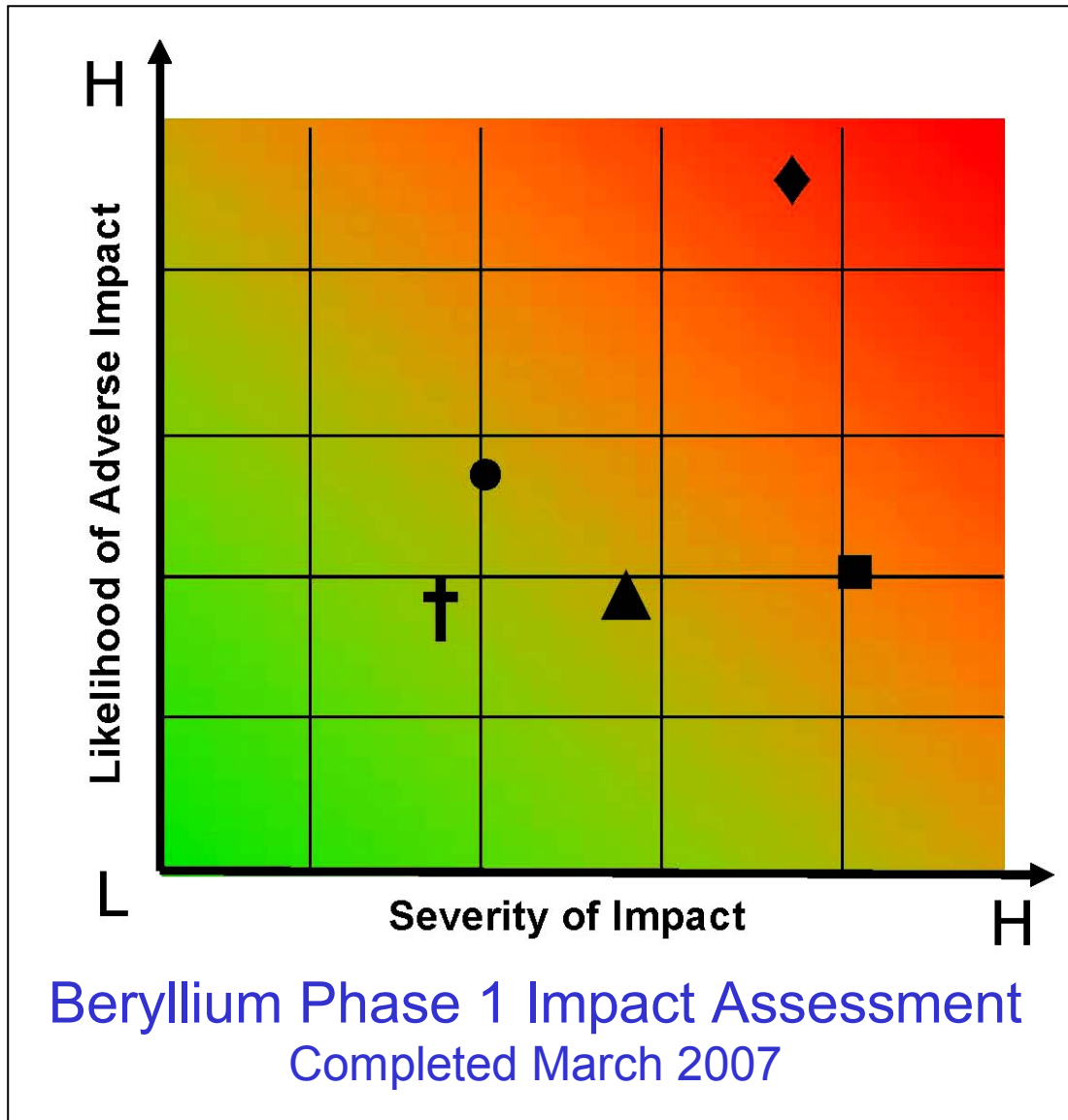


- Fill tox science gaps
- RDT&E
- Material substitution
- Process changes
- Regulatory engagement
- Stockpile material
- Exposure assessment & monitoring
- Personal Protective Equipment (PPE)
- Acquisition changes
- Benchmark with industry
- Risk communication
- Training

Example: TCE and the Relative Risks to EH&S and Cleanup



Example: Beryllium and the Relative Risks to EH&S and Readiness & Training



Chemical and Material Differences

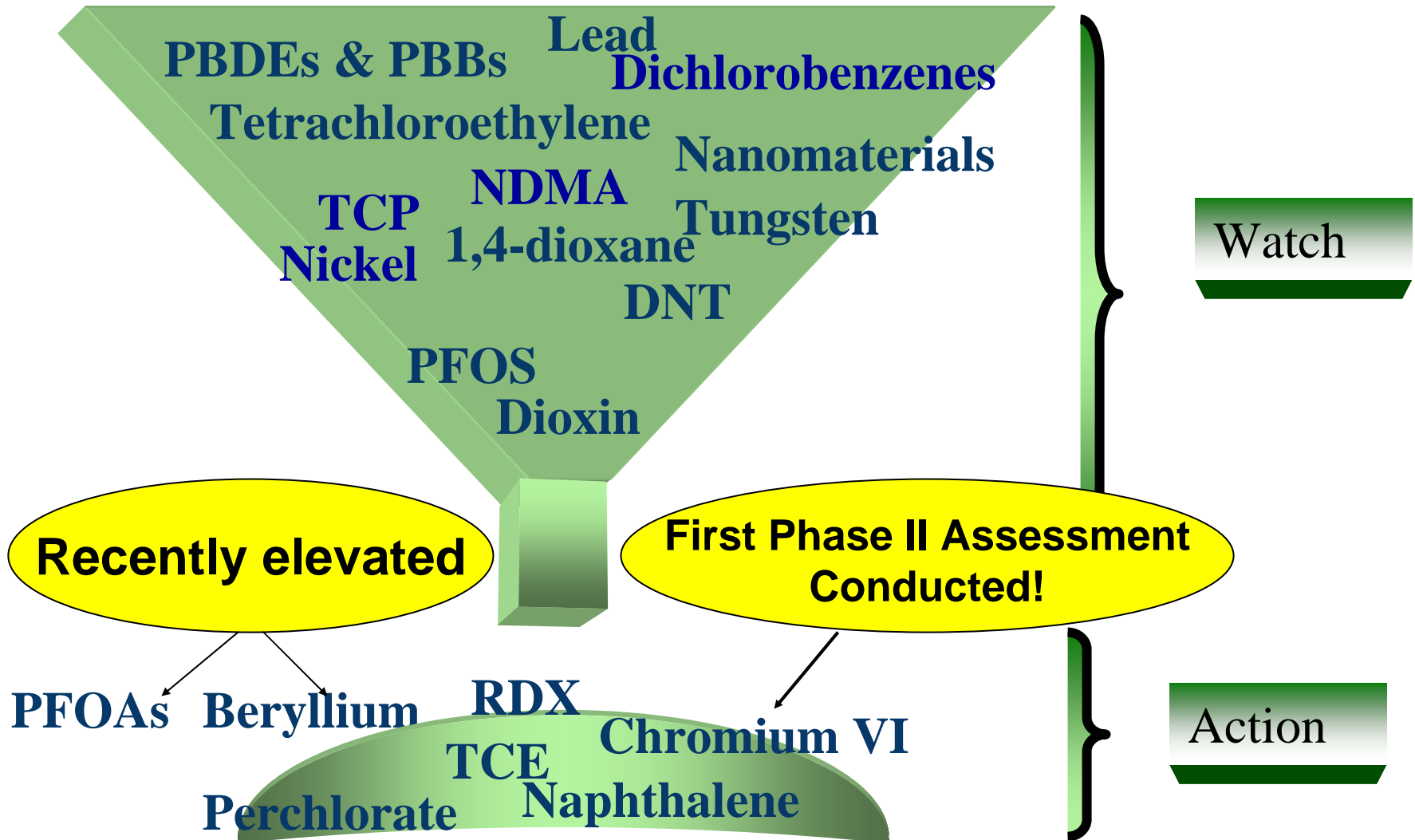
Watch List

- May impact DoD
- Limited analysis of impact – more qualitative
- Monitor external actions
- Updated regularly
- Short info sheets developed
- Minimal resources expended

Action List

- Likely to impact DoD
- Detailed analysis of impact – more quantitative
- Take RM actions
- Executive info sheets developed
- Significant resources may be expended
- “Material champion” assigned

Chemicals and Materials Identified Thus Far



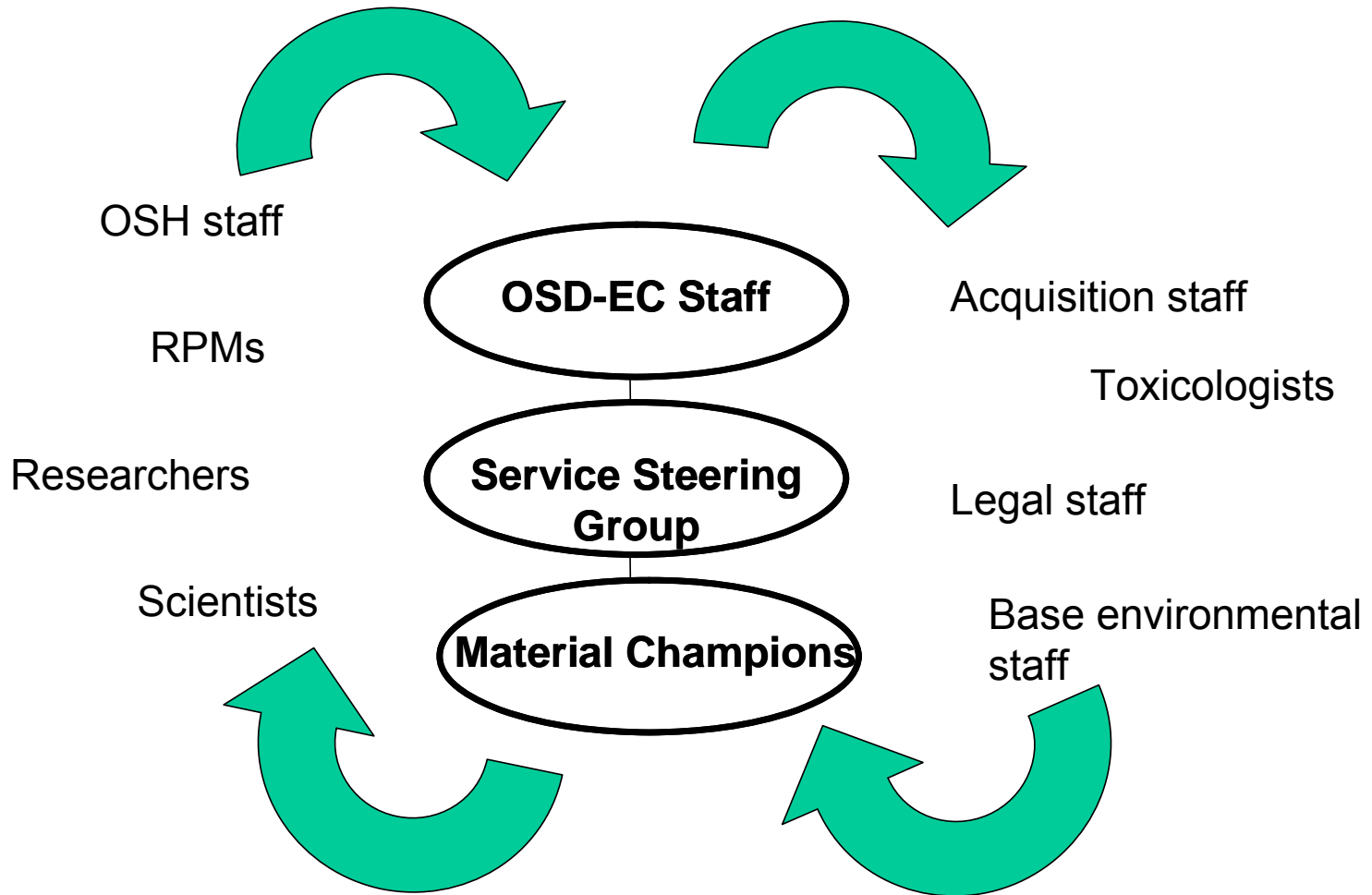
EC Program Summary

- ❖ **EC management required new thinking**
 - ◆ Make targeted investments before regulatory action
 - ◆ Base decisions on life cycle costs
 - ◆ Craft process for tracking, assessing and developing risk management options
 - » Leverage existing assets/resources
- ❖ **EC management required new organization**
 - ◆ Created Emerging Contaminants Directorate
 - ◆ Established funding line within DoD environmental budget
 - ◆ Launched executive level EC Governance Council to enhance corporate decision-making

EC Program Highlights

- ❖ **Keep Program Executive Offices (PEOs) and Program Managers (PMs) informed on**
 - ◆ New ECs
 - ◆ Risks
 - ◆ Risk management options
- ❖ **Some EC Products**
 - ◆ Newsletter
 - » Provides brief news events & links
 - ◆ Scan-Watch-Action List and Impact Assessments
 - ◆ Web Site
 - » EC database and information

Become Involved in the EC Process



Including MERIT, a virtual team

DoD EC Web Sites


MERIT - Microsoft Internet Explorer provided by Comcast


File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Print Copy Paste Refresh Stop

Address <https://www.denix.osd.mil/denix/Public/Library/MERIT/merit.html> Go

Google G Go 780 blocked AutoLink AutoFill Settings





DEPARTMENT OF DEFENSE
MERIT
Materials of Evolving
Regulatory Interest Team

The Official DoD Source
for Emerging Contaminant Information

Emerging Contaminants Directorate

Home Emerging Contaminants (EC) DoD Efforts News Room Resources Calendar

DoD Site: <http://intranet.dodmeritinfo.net>

Quick Links

- [Policy & Guidance](#)
- [Glossary](#)

Contact Us

Feedback

We value your input. Please let us know how we can serve you better...

DoD Account Login:

DoD is committed to protecting the public, our work force, the environment, and our national security.

About MERIT

The Materials of Emerging Regulatory Interest Team

What is an Emerging Contaminant?

Emerging Contaminants are chemicals or materials of interest that are characterized by:

- A perceived or real threat to human health or

What's New

Announcements

July 27, 2006

IIAS releases its report "Assessing Human Health Risks of TCE: Key Scientific Issues"

January 26, 2006

EPA Issues Guidance for Protective

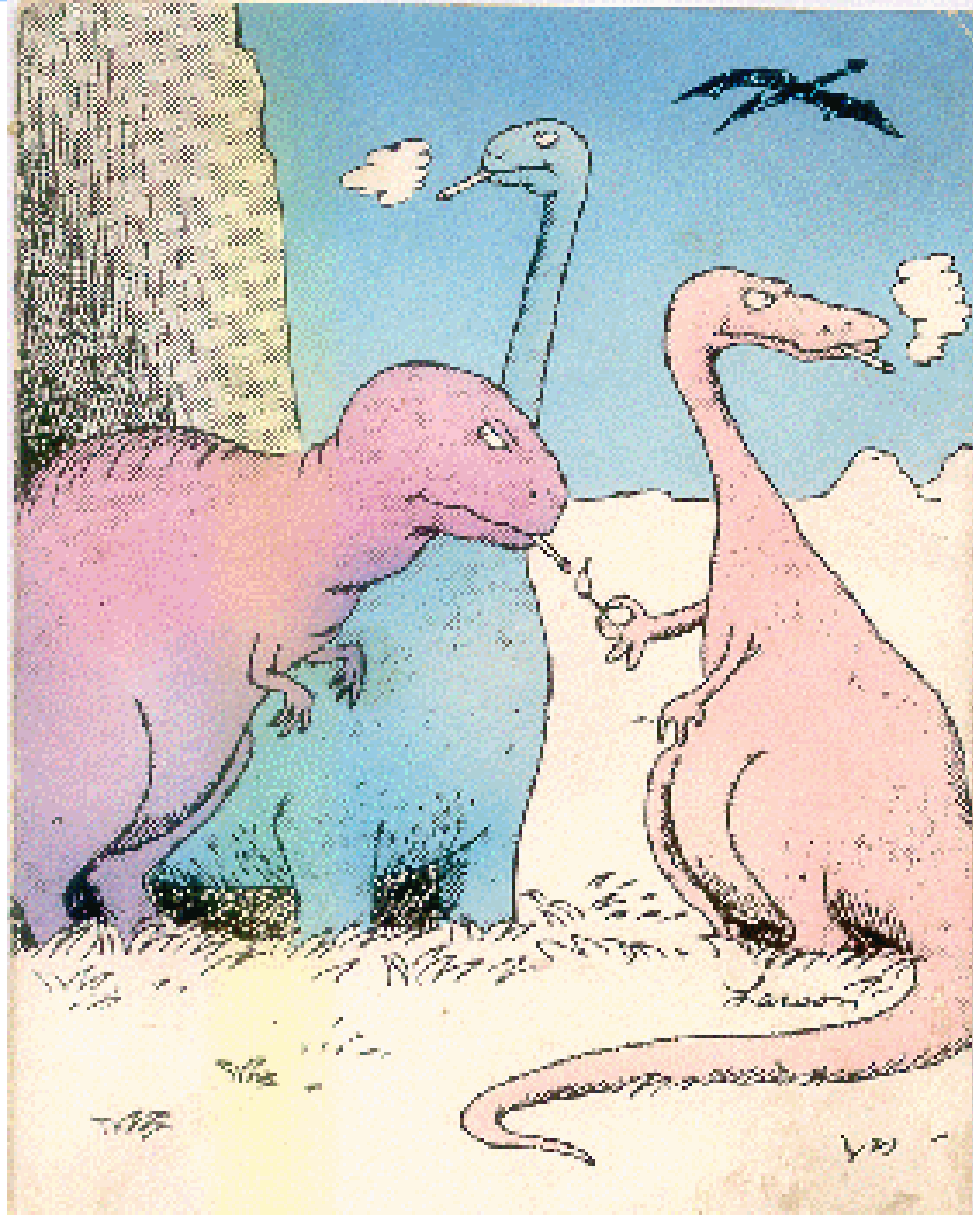
The Take Home Message

Proactive vs Reactive



Potential Large Payback
Protects Mission, People and Assets

Otherwise...



The real reason dinosaurs became extinct.