

A strategic Approach To Risk Based Regulation



Dara Lynott
Deputy Director General
Environmental Protection Agency
European Risk Summit - June 12th, 2013
Dublin

What does the EPA do?

Regulation

Risk based and outcome focussed

- Licensing
- Enforcement
- Guidance



Knowledge

Evidence base for decision making

- Monitoring and Assessment
- Research
- Reporting



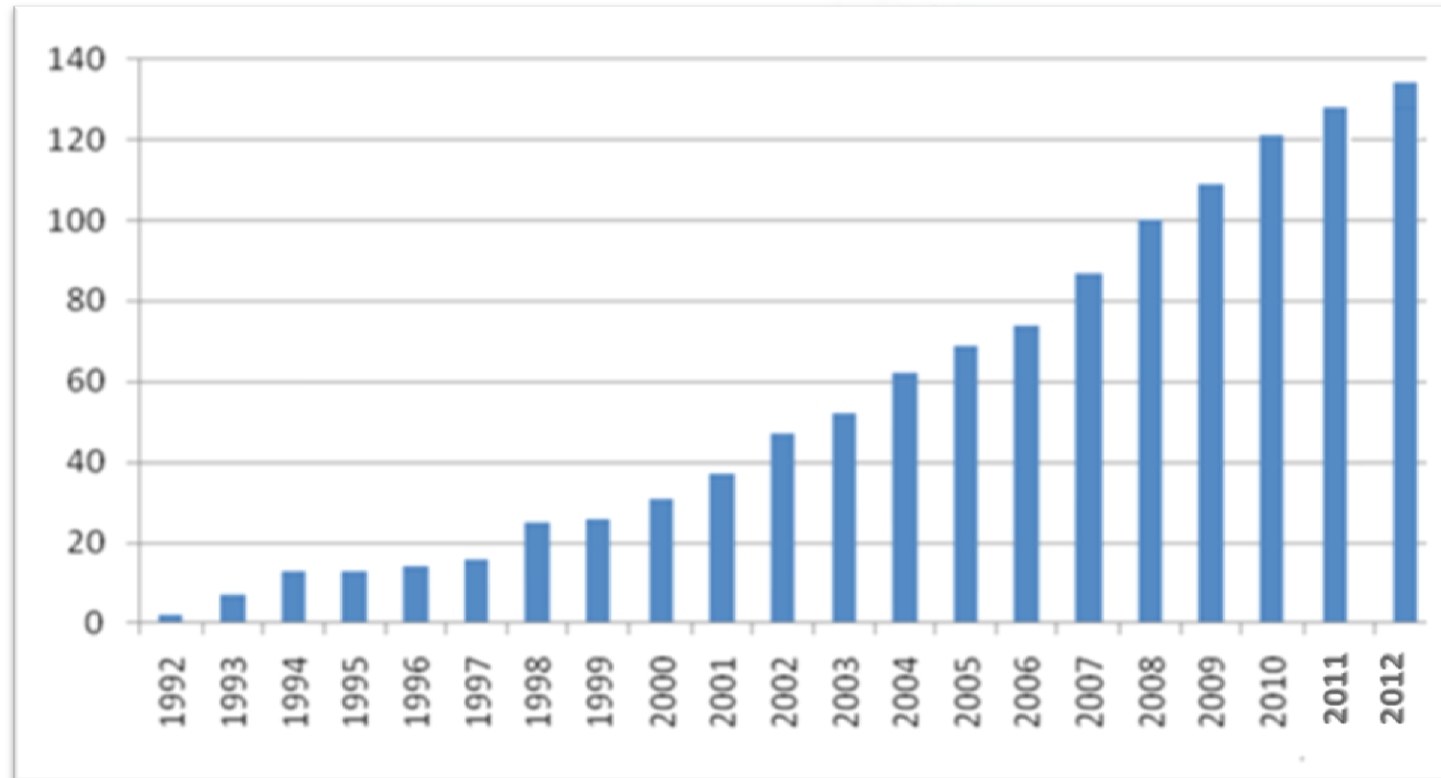
Advocacy

Mobilise society to become low-carbon and resource efficient

- Education
- Awareness Raising
- Behavioural Change



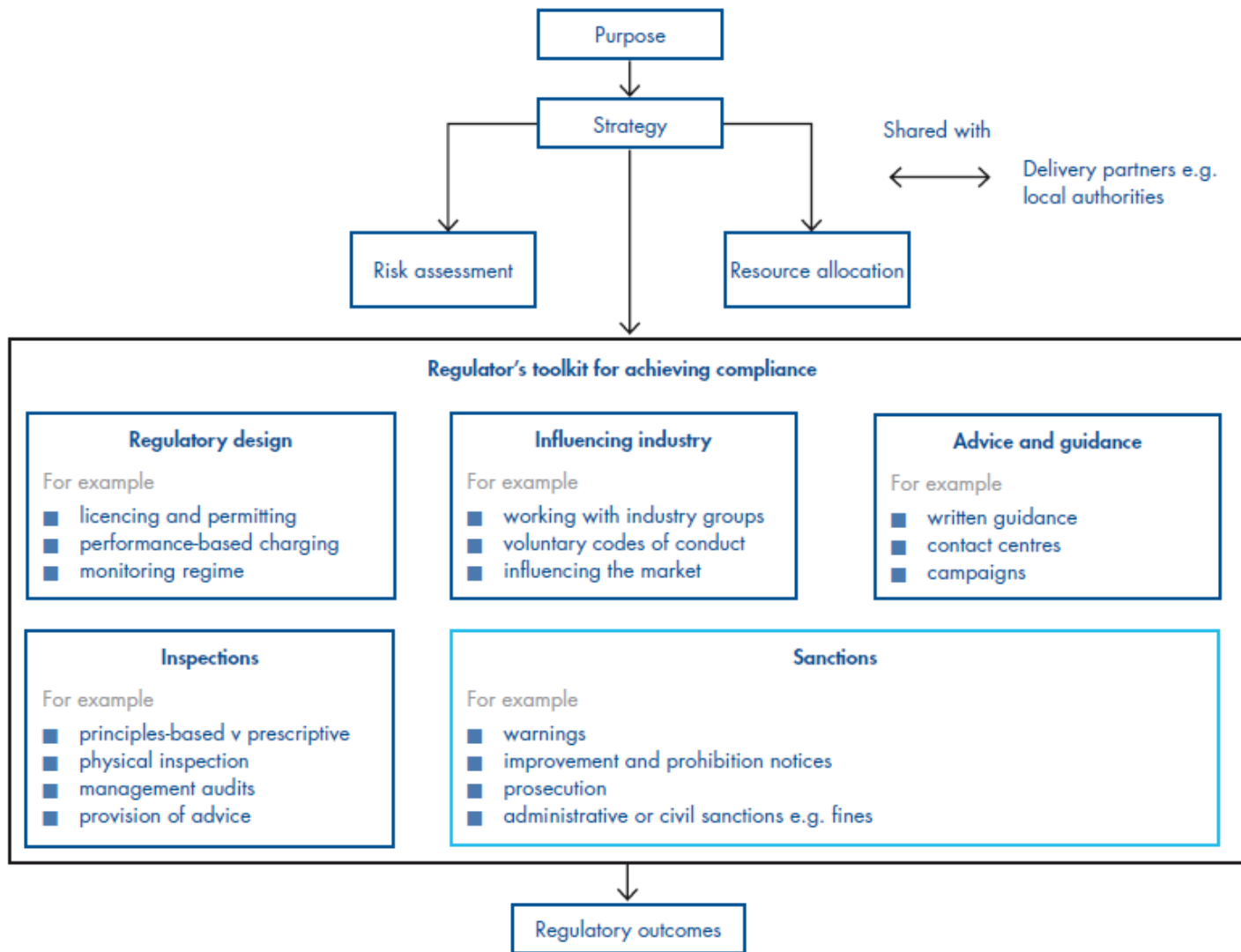
Statutory Functions assigned to the EPA since 1992



The Challenge for Regulators ¹

- To deliver the objectives and **outcomes** set down in statute.
- To develop a comprehensive **risk assessment** system which can deal with a **wider range of risks** both high level and facility specific so as to inform judgements about **the application of resources** to different areas of risk.
- To understand the **effectiveness** of their activities – to strike the right balance between enforcement activity and other means of achieving compliance.

Risk based outcome focused enforcement ¹



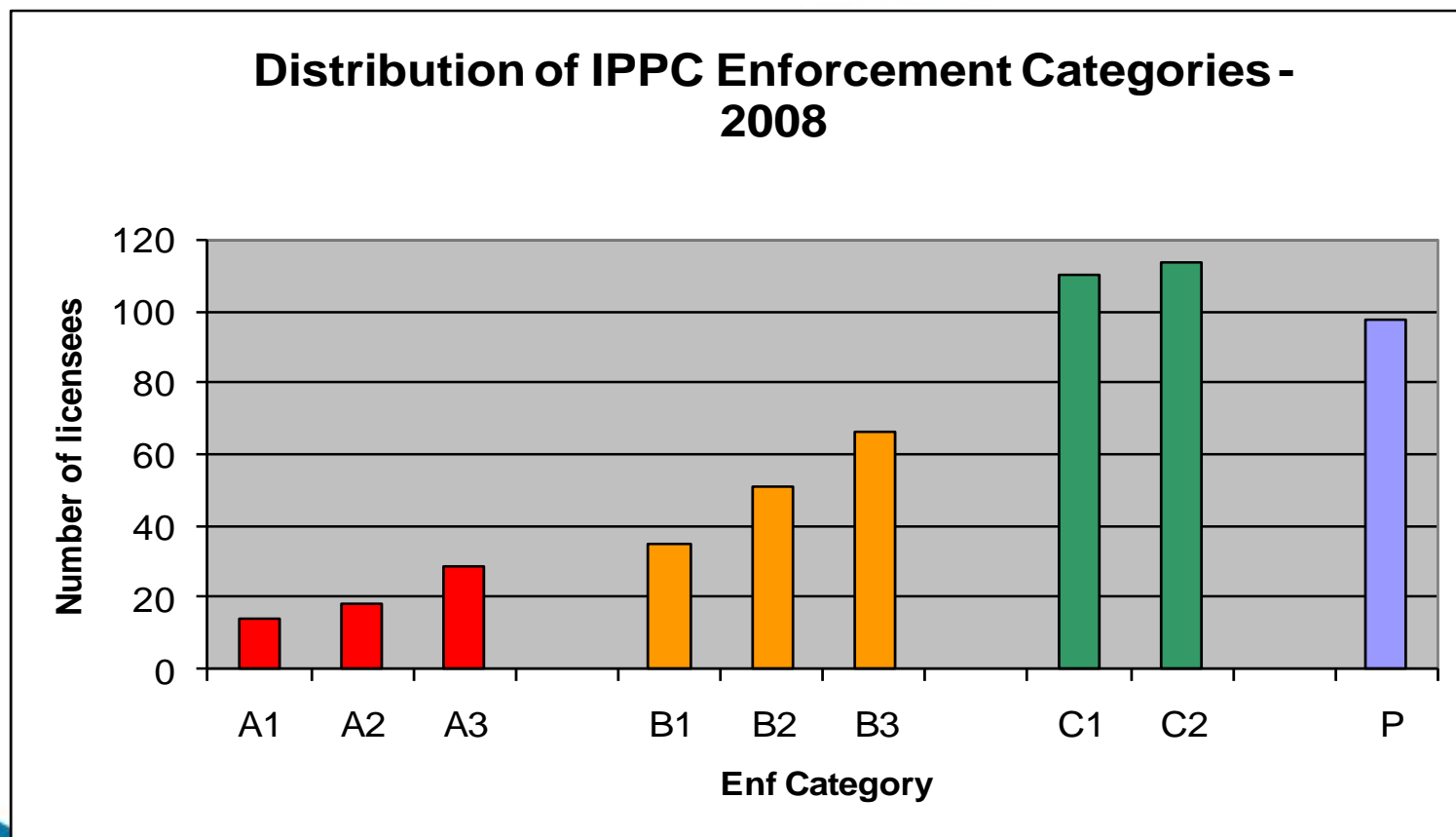
Industry

- Wide range of sectors and industries –
 - A need for effective environmental regulation
 - Focus resources where the risks are highest
- Risk based approach to licence enforcement required to:
 - provide **consistent, transparent and tangible rationale** for level of enforcement
 - Improve use of resources

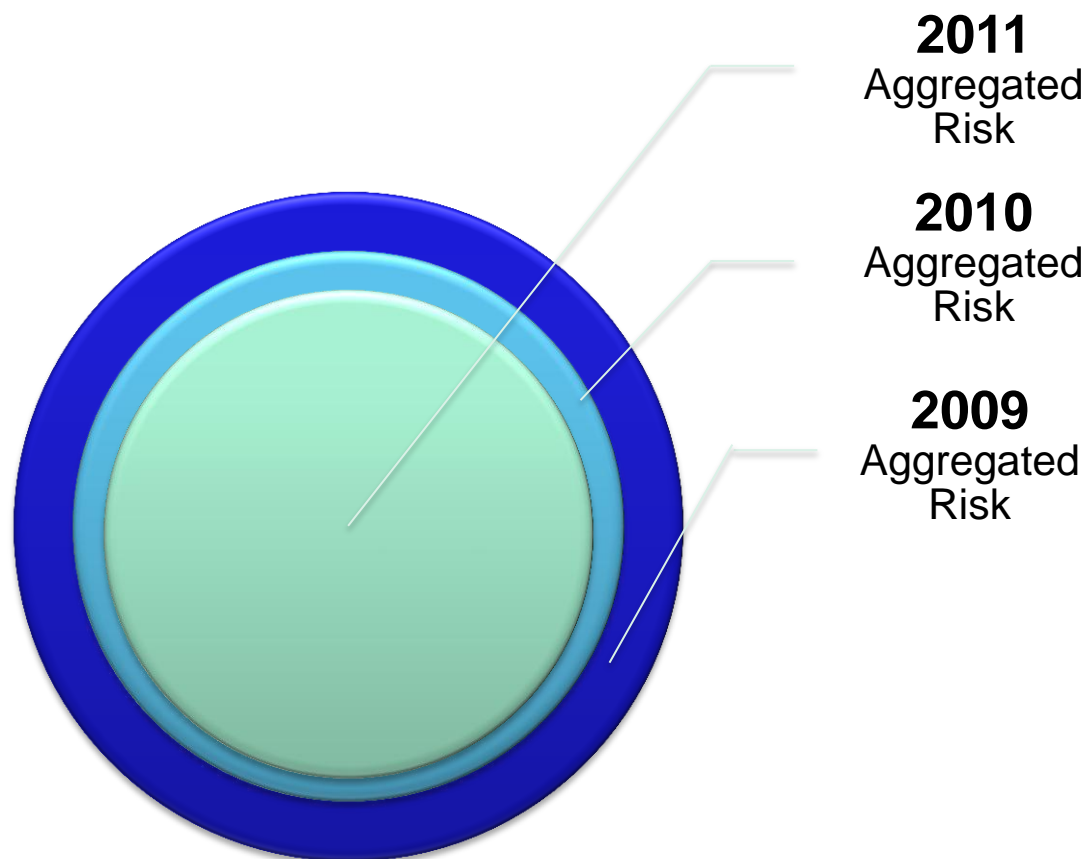
Risk Assessment Methodology

- Complexity
 - complexity grade assigned to each activity
 - some automatic high risk activities
- Emissions
 - The quantity of PRTR substances that are emitted to all media Location - fixed attribute and risk is based on
- Location
 - Proximity to sensitive receptors, ecological sites;
- Operator Management
 - Environmental Management System
 - No. of Notifiable incidents
- Enforcement Record
 - No. of enforcement notices issued or legal actions
 - Soil/groundwater contamination issues on site

IPPC Risk Distribution



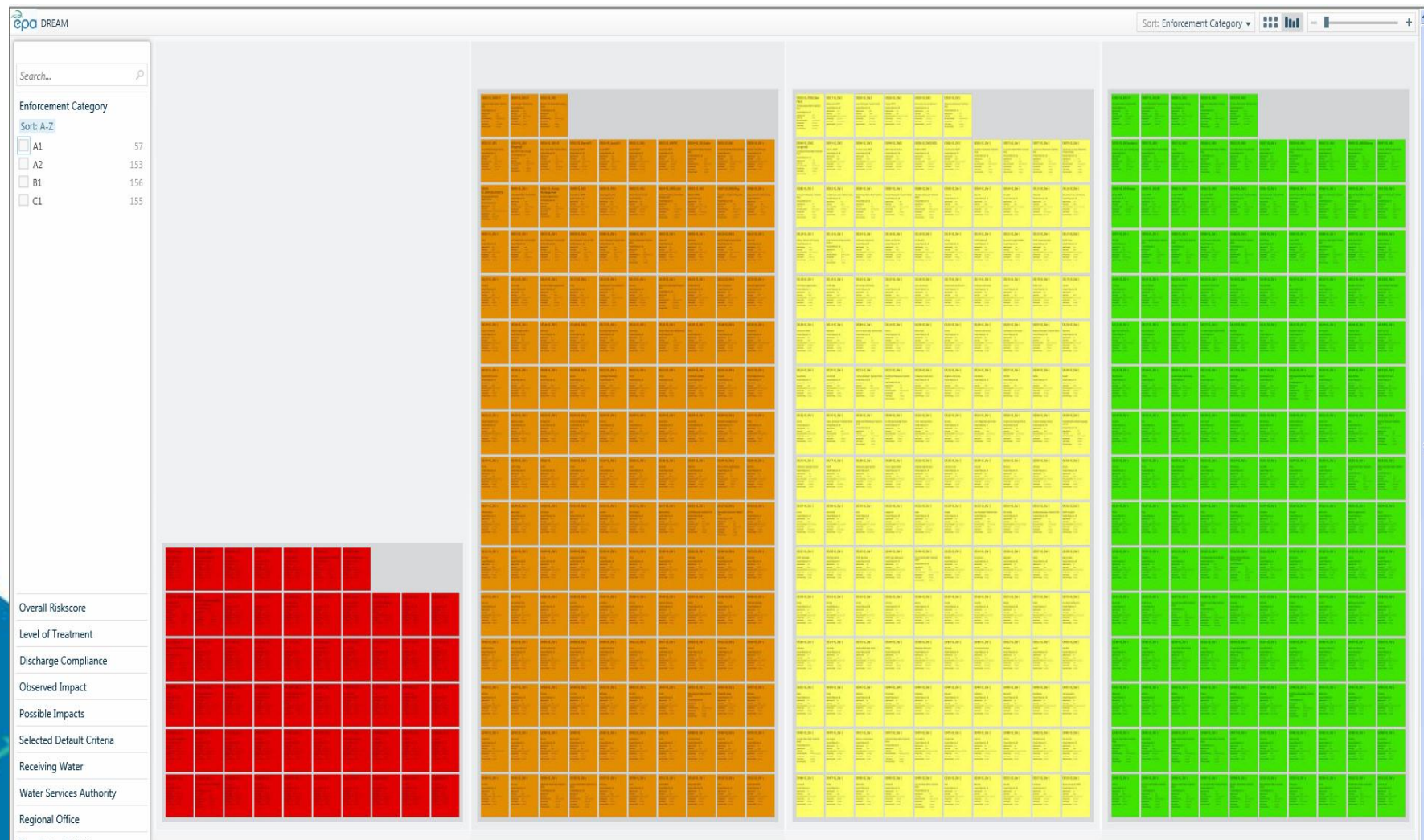
Reduction in Risk profile of IPPC sites over time



URBAN WASTEWATER TREATMENT

- Allocates an enforcement category to waste water discharges on the basis of five attributes:
 1. Level of Treatment (Complexity)
 2. **Observed Impacts by EPA**
 3. Possible Impact (Location)
 4. Discharge Compliance (Emissions)
 5. Enforcement Record

DREAM: Screen shot of enforcement categories



DREAM: Screen shot of a single WWTP

The screenshot displays the DREAM web application interface. The main area shows a grid of WWTP cards. The card for D0198-01_SW-1 (Clifden) is highlighted with a blue border. A sidebar on the right provides detailed information for this specific WWTP.

Left Sidebar (Filters):

- Search...
- Enforcement Category
- Overall Riskscore
- Level of Treatment
- Discharge Compliance
- Observed Impact
- Possible Impacts
- Sort: Quantity
- None determined
- SAC
- NHA
- Bathing Water
- Nutrient Sensitive
- SPA
- Salmonid Rivers
- Shellfish
- Drinking Water
- Produce Site
- Mollusca

Main Grid Cards:

- D0170-01_SW-1: Dunmore East, Overall Riskscore: 150, Agglomeration Size: 5740, Licence Status: Applied, Water Services Authority: Waterford County Council, River Basin District: South Eastern, Licence Inspector: Unassigned, Enforcement Inspector: Unassigned.
- D0198-01_SW-1: Clifden, Overall Riskscore: 240, Agglomeration Size: 4975, Licence Status: Applied, Water Services Authority: Galway County Council, River Basin District: Western, Licence Inspector: Unassigned, Enforcement Inspector: Unassigned.**
- D0210-01_SW-1: Glenties, Overall Riskscore: 120, Agglomeration Size: 1620, Licence Status: Applied, Water Services Authority: Donegal County Council, River Basin District: North Western, Licence Inspector: Unassigned, Enforcement Inspector: Unassigned.
- D0275-01_SW-1: A1
- D0276-01_SW-1
- D0294-01_SW-1

Right Sidebar (Details for D0198-01_SW-1):

- D0198-01_SW-1
- Works Name: Clifden
- Enforcement Category: A1
- Overall Riskscore: 240
- Level of Treatment: Primary Treatment
- Discharge Compliance: Non-Compliant
- Observed Impact: Bathing Water Failure
- Possible Impacts: Shellfish, Bathing Water
- Selected Default Criteria: Shellfish, EPA UWWTP List, Inadequate Treatment
- Receiving Water: Transitional
- Agglomeration Size: 4,975
- County: Galway
- Water Services Authority: Galway County Council
- Regional Office: Castlebar: Water Team North
- River Basin District: Western
- Licence Status: Applied
- Licence Inspector: Unassigned
- Enforcement Inspector: Unassigned
- Discharge Pt Mapping Reliability: High

Bottom Bar:


epa Environmental Protection Agency
An Ghníomhaireacht um Daoine agus Comhshaoil

DREAM: Screen shot of a single WWTP




Research on Regulating Lower risk sites

http://www.sniffer.org.uk/files/3613/4183/7993/ER13_Project_report_Oct11.pdf

Intensity of intervention increases 

Nature of the regulatee	Nature of the lower-risk site / activity				Options for regulatory activity and suggested regulatory intensity
	<i>Inherent lower-risk; stable</i>	<i>Net lower-risk; stable</i>	<i>Inherent lower-risk; but may change or cumulate</i>	<i>Net lower-risk; but may change or cumulate</i>	
<i>Well motivated with high capacity to comply</i>					<i>Screening & rule-based</i>
					<i>Inspection / monitoring</i>
					<i>Engagement & incentives</i>
	Low	Low	Low	Low	<i>Regulatory intensity</i>
<i>Well motivated with low capacity to comply</i>					<i>Screening & rule-based</i>
					<i>Inspection / monitoring</i>
					<i>Engagement & incentives</i>
	Low	Low	Low	Low	<i>Regulatory intensity</i>
<i>Less motivated with high capacity to comply</i>					<i>Screening & rule-based</i>
					<i>Inspection / monitoring</i>
					<i>Engagement & incentives</i>
	Medium	Medium	Medium	High	<i>Regulatory intensity</i>
<i>Less motivated with low capacity to comply</i>					<i>Screening & rule-based</i>
					<i>Inspection / monitoring</i>
					<i>Engagement & incentives</i>
	Medium	Medium	High	High	<i>Regulatory intensity</i>

Intensity of intervention increases 

Intervention Strategies for lower risk sites

Available regulatory strategies

There are a total of 22 strategies available for the regulation of lower-risk sites and activities. Those strategies, which your environment agency has given you the remit to use, are listed in the table on the reverse side.

Screening and rule-based strategies

1. Exemptions without notification or registration
2. Exemptions with notification or registration
3. Registration plus conditions/rules; permit and licensing systems
4. Application of general binding rules without notification/registration

Inspection/monitoring and proxy strategies

5. Frequency-adjusted inspections
6. Regulatory audits
7. Themed inspections or monitoring
8. Random inspections or monitoring
9. Advice and assistance visits
10. Reactive investigations, responding to complaints, whistle-blowing or post-incident investigations
11. Surveillance
12. Benchmarking or 'yardsticking' strategies
13. Measuring indirect/proxy outcomes
14. Self monitoring and self certification by regulated firms
15. Management-based strategies
16. Third-party monitoring
17. Information and inspection sharing regimes

Engagement and incentives strategies

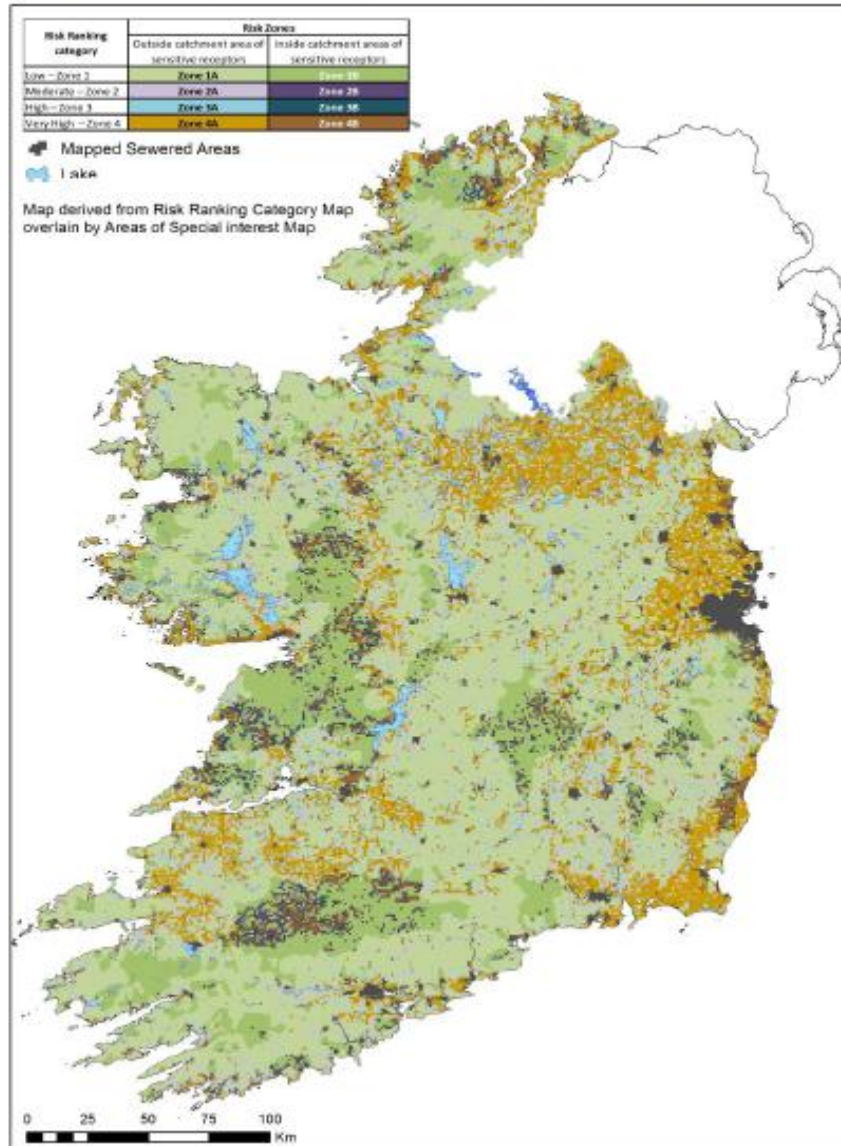
18. Information campaigns, codes, guides, and recommendations.
19. Dialogue with interested parties
20. Industry or NGO/ interested party-led solutions
21. Multi-agency approaches
22. Incentive strategies

ON-Site Wastewater Treatment plants

Published
February 2013



Map 3: Risk ranking map combined with Areas of Special Interest Map giving eight risk zones



Increased use of
EPA databases
and GIS

EU Commission response to the regulation of lower risk sites

- “The Commission welcomes the adoption of the National Inspection Plan by the EPA earlier this year. These measures relate to rulings by the European Court of Justice that Ireland was in breach of EU waste legislation in relation to septic tanks and imposing fines. The Commission notes that the recent measures will mean Ireland meets the requirements of the Court of Justice judgments and the fines will stop”