



River Almond,
Cramond



Firth of Forth

Strategy for the Selection & Prioritisation of Priority Pollutants

Dr Ian Ridgway, SEPA, 24 November 2015

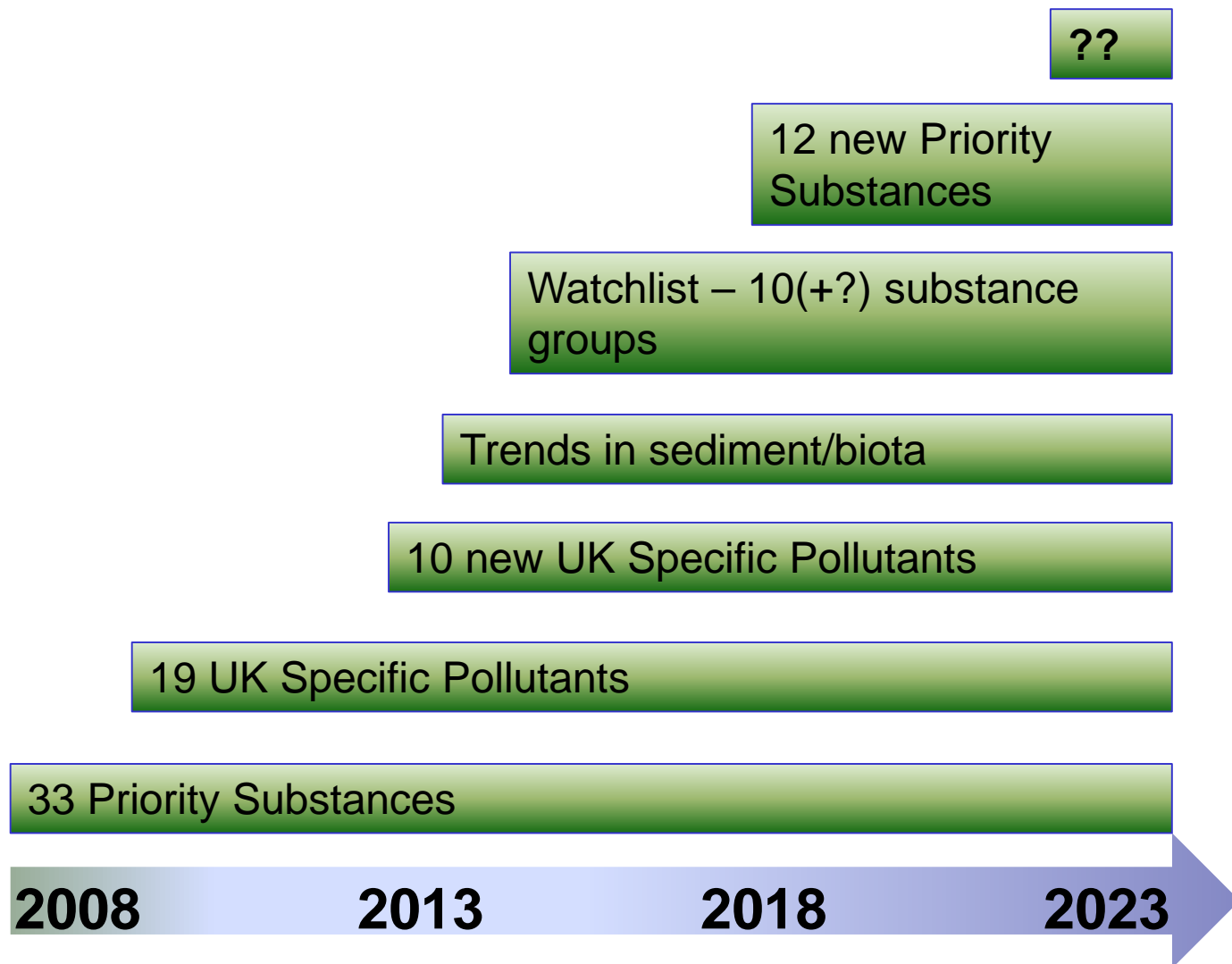


Union Canal

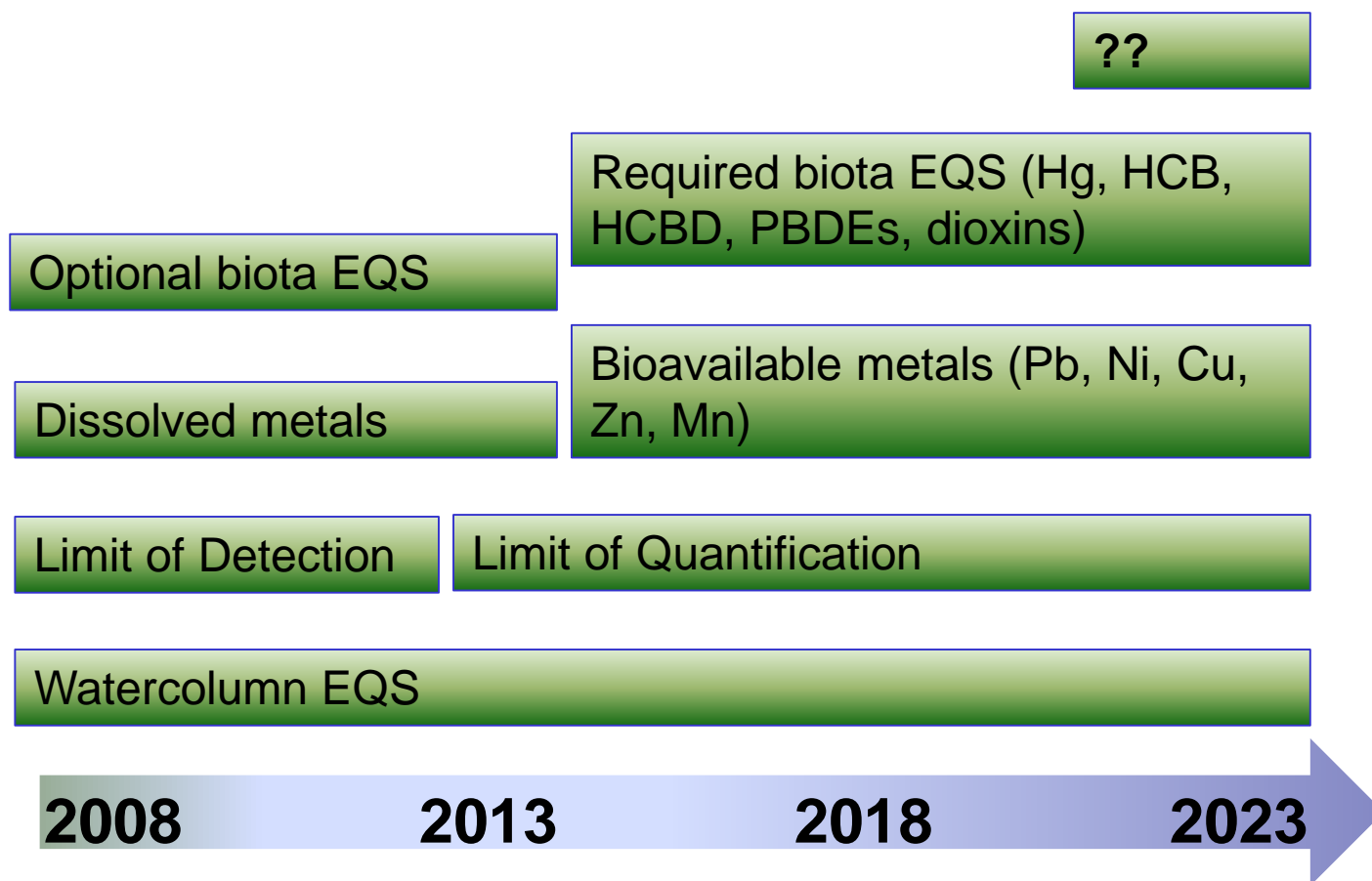


Water of Leith

WFD Timeline - Increasing Requirements

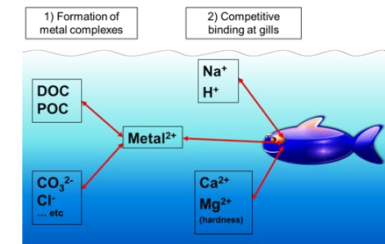
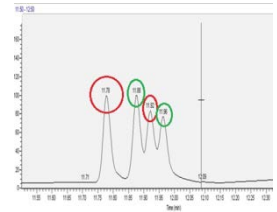


...with increasing complexity



Some 2013/39/EC challenges

- **Limit of Quantification**
 - Major implications across the board
 - how to use “mixed” datasets?
- **Bioavailable metals EQS**
 - pH, DOC, hardness required
 - More sampling and analysis
 - How to fill datagaps?
- **Biota EQS**
 - Practicalities – enough fish & tissue, long term sustainability?
 - Data treatment - trophic level transformation?
 - Ethical questions (protected species)

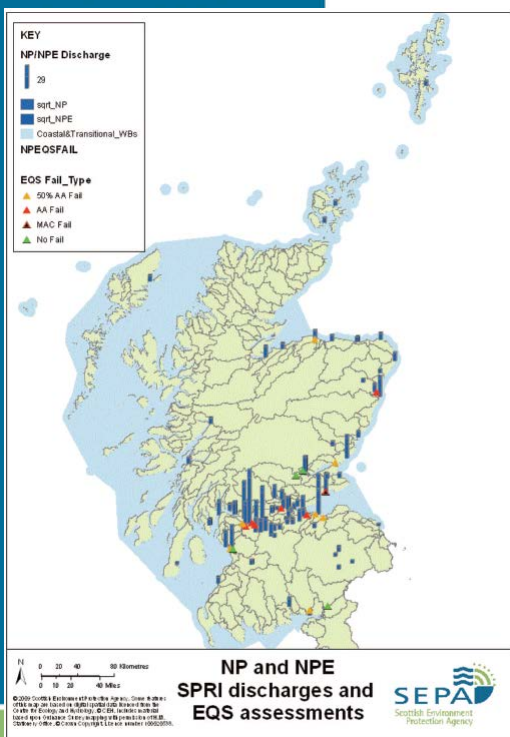
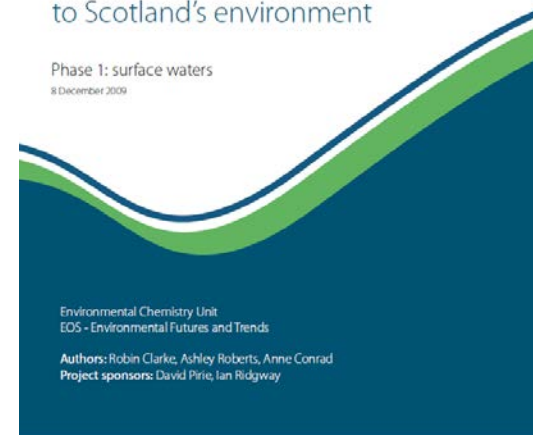


SEPA's approach: 1. Prioritising chemicals of national concern

- IMPRESS guidance
- “extended universe” = 925 chemicals
 - “surface water universe” = 432 chemicals
 - Estimate PEC score
 - Estimate PNEC score
 - Highest risk score included nonylphenol, Cd, Pb, triclosan, DEHP, HBCDD
- Results used to modify existing WFD surface water monitoring networks and inform future networks

Chemical prioritisation:
ranking chemicals of concern
to Scotland's environment

Phase 1: surface waters
8 December 2009



SEPA's approach: 2. Targeting Specific Issues

- Lots to do, need to be clever with resources
- Are we asking the right questions?
- Communication: “data rich and information poor”
- Delivering what we need, not always what is required



SEPA's Campaign Approach



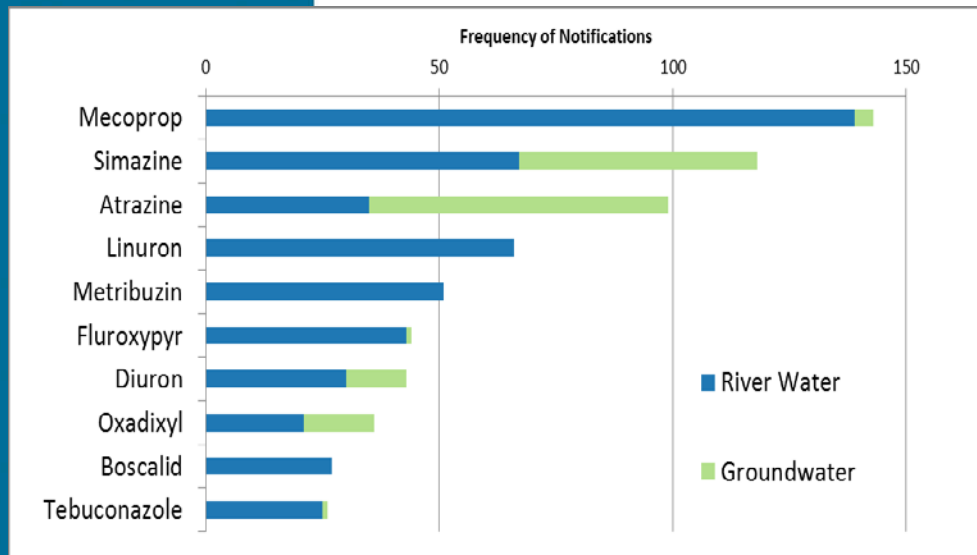
- Key to the “Campaign approach” is how we identify priorities for action and who we work with to get results
- Identify priorities from:
 - New Regulatory Requirements (EU, UK or national)
 - Issues identified by partners, “hot topics”
 - Existing SEPA Priorities

Campaign Approach a WFD

Example: Pesticides

- Step 1: Define the questions

- What pesticides are potential risks in the Scottish environment?
- What are the priorities?



Detection of pesticides not authorised for use in the UK or above 75% of the Drinking Water Standard

- Can we justify modifying our monitoring approach for WFD and other drivers?
- What evidence is needed to support regulatory action, if any?



cameras

A CO-ORDINATED AGENDA FOR
MARINE, ENVIRONMENT & RURAL AFFAIRS SCIENCE



marinescotland



**Scottish
Water**
Always serving Scotland



Scottish Natural Heritage
All of nature for all of Scotland



Forestry Commission Scotland
Coimisean na Coilltearachd Alba



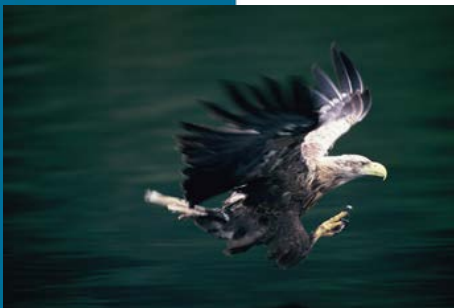
**Food
Standards
Scotland**

**For safe food and
healthy eating**

CAMERAS and Hazardous Substances

- SEPA is committed to work with CAMERAS partners and other monitoring organisations to ensure Scotland has the data it needs on the presence of- and environmental issues associated with- hazardous substances in Scotland's environment.
- A flexible monitoring approach, not constrained by SEPA's capabilities, so Scotland monitors; right substance, right place, right time, through partnership working and collaboration.
- Across the whole environment





Working with partners



Wildlife Disease & Contaminant Monitoring & Surveillance Network

Perfluorinated compound (PFC) concentrations in northern gannet eggs 1977-2014: a PBMS report



Predatory Bird
Monitoring Scheme
Baiting Scheme

Perfluorinated compound (PFC) concentrations in northern gannet eggs 1977-2014: a Predatory Bird Monitoring Scheme (PBMS) report

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Predatory Bird
Monitoring Scheme
Baiting Scheme

Mercury (Hg) concentrations and stable isotope signatures in golden eagle eggs 2009-2013: a Predatory Bird Monitoring Scheme (PBMS) report

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Predatory Bird
Monitoring Scheme



Horizon Scanning



The Process

What have we done to get to this point?



- SEPA's process involves scanning current evidence base & projections, issues objectively prioritised
- Issues assessed by relevant SEPA "expert" to provide a central view of their importance
- Internal peer review to provide "sense check"

