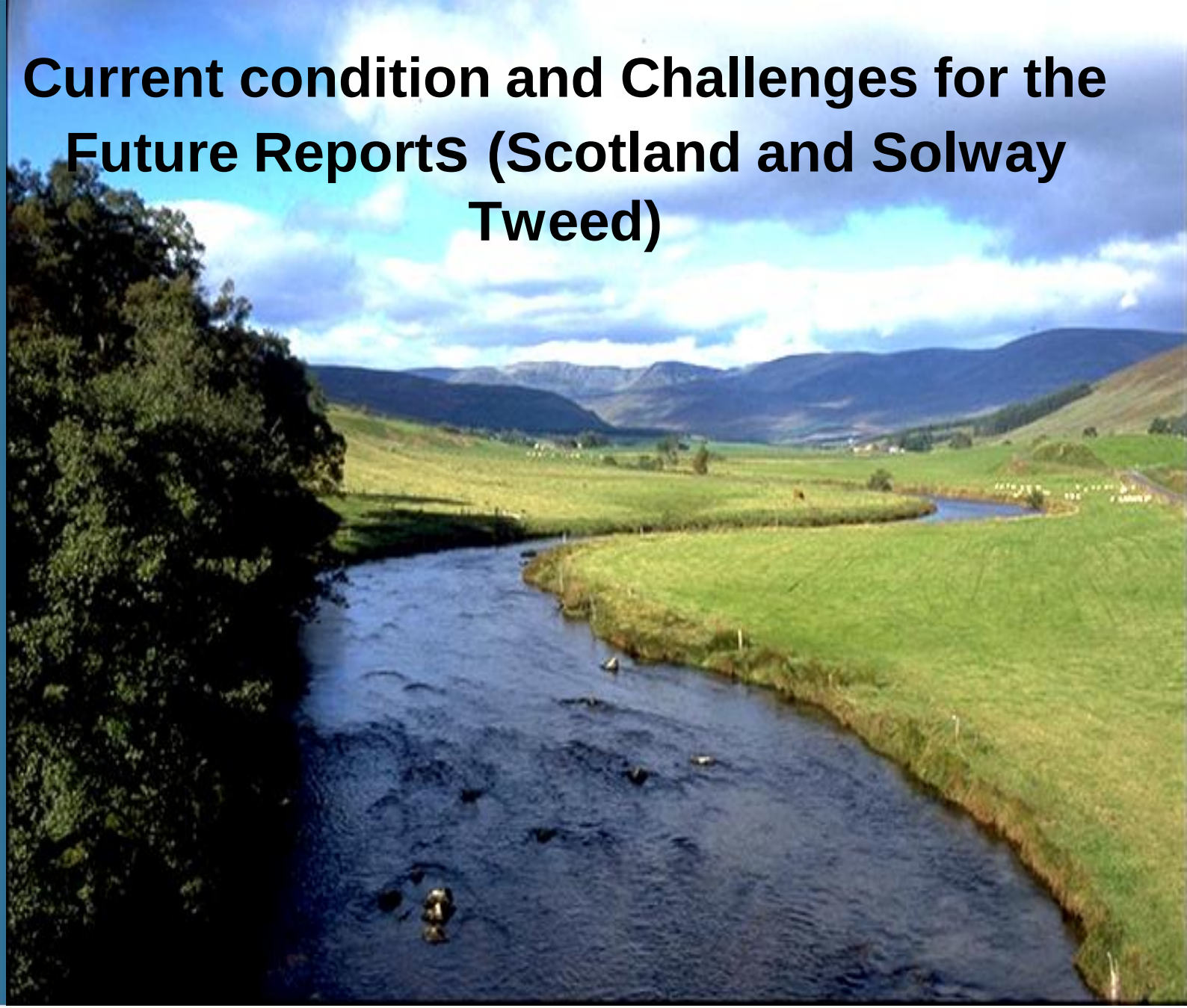
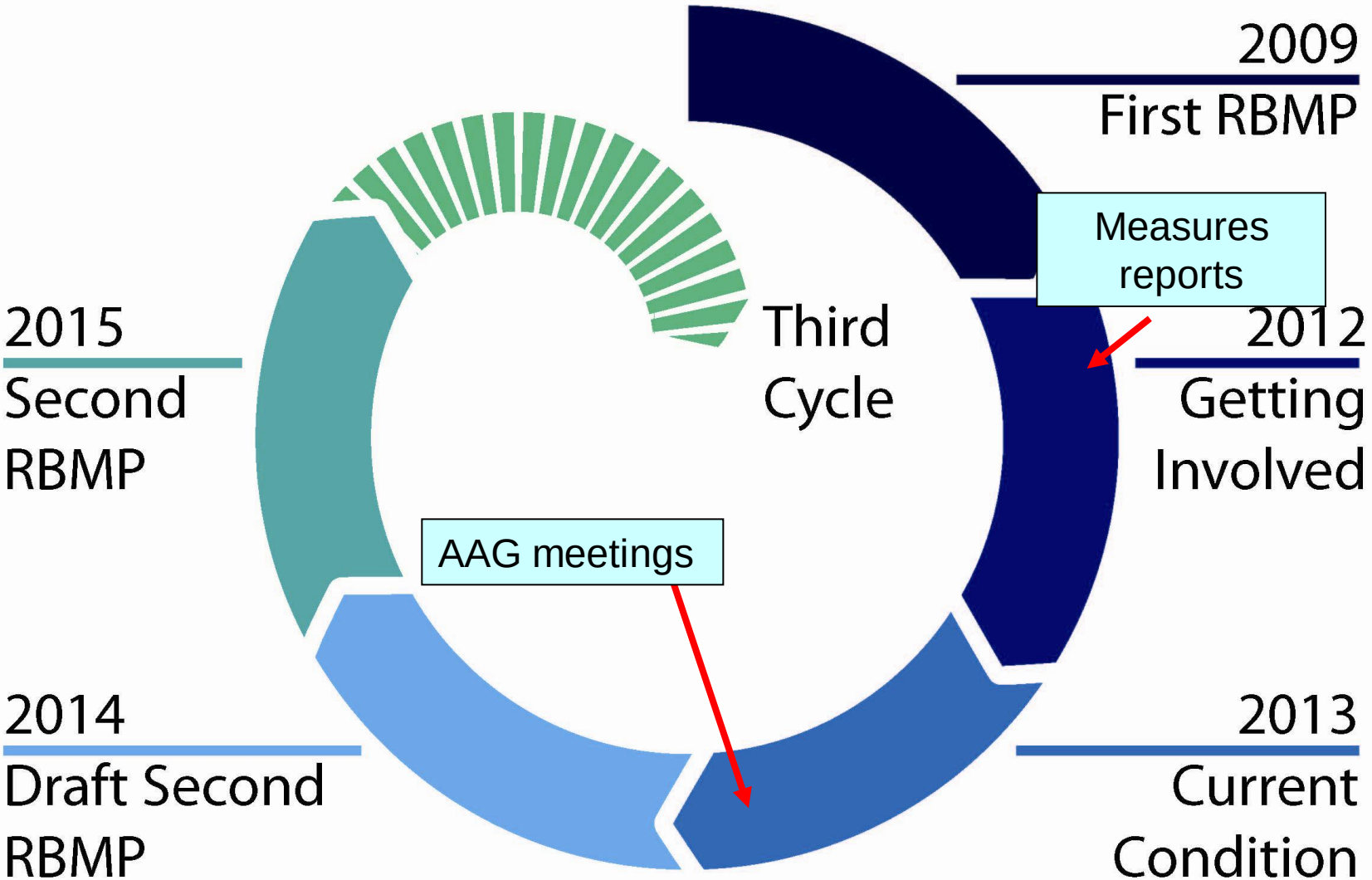
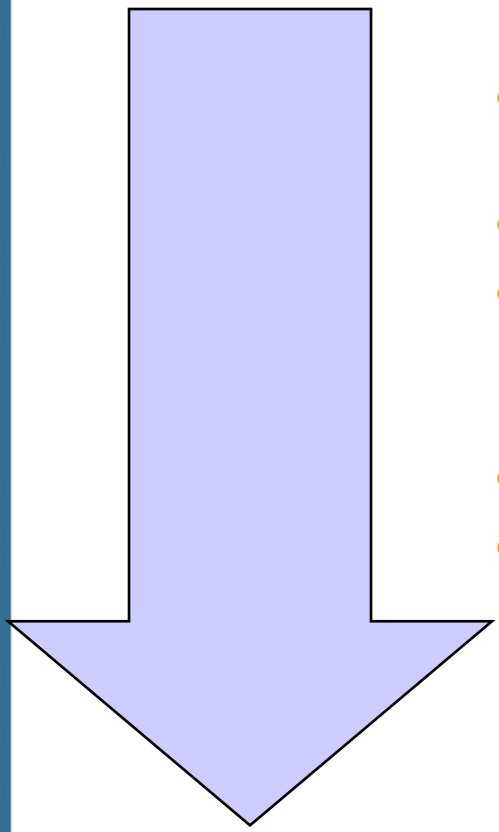
Current condition and Challenges for the Future Reports (Scotland and Solway Tweed)



Where are we in the process?



Current condition and challenges for the future



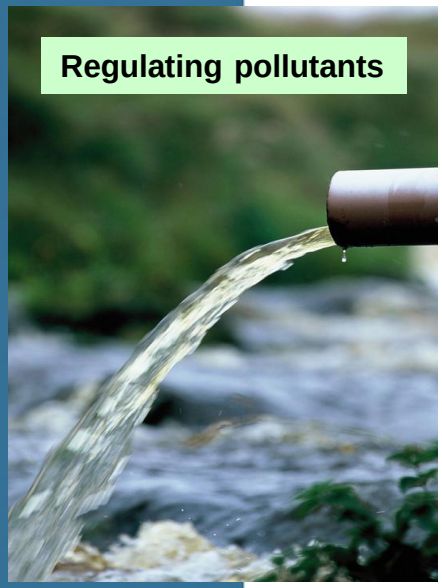
- Update of characterisation – what is our environment like?
- Risk 2015 targets – will we get there?
- What are the significant water management issues for the second plans?
- Economic Analysis
- Future challenges to 2050

Consultation on second plans

Second plans

Value of the water environment

Regulating pollutants



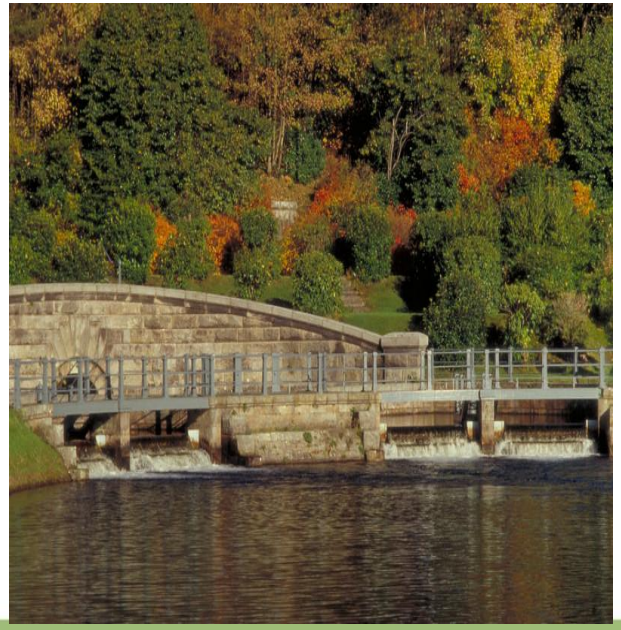
Provision of goods

Recreation and culture

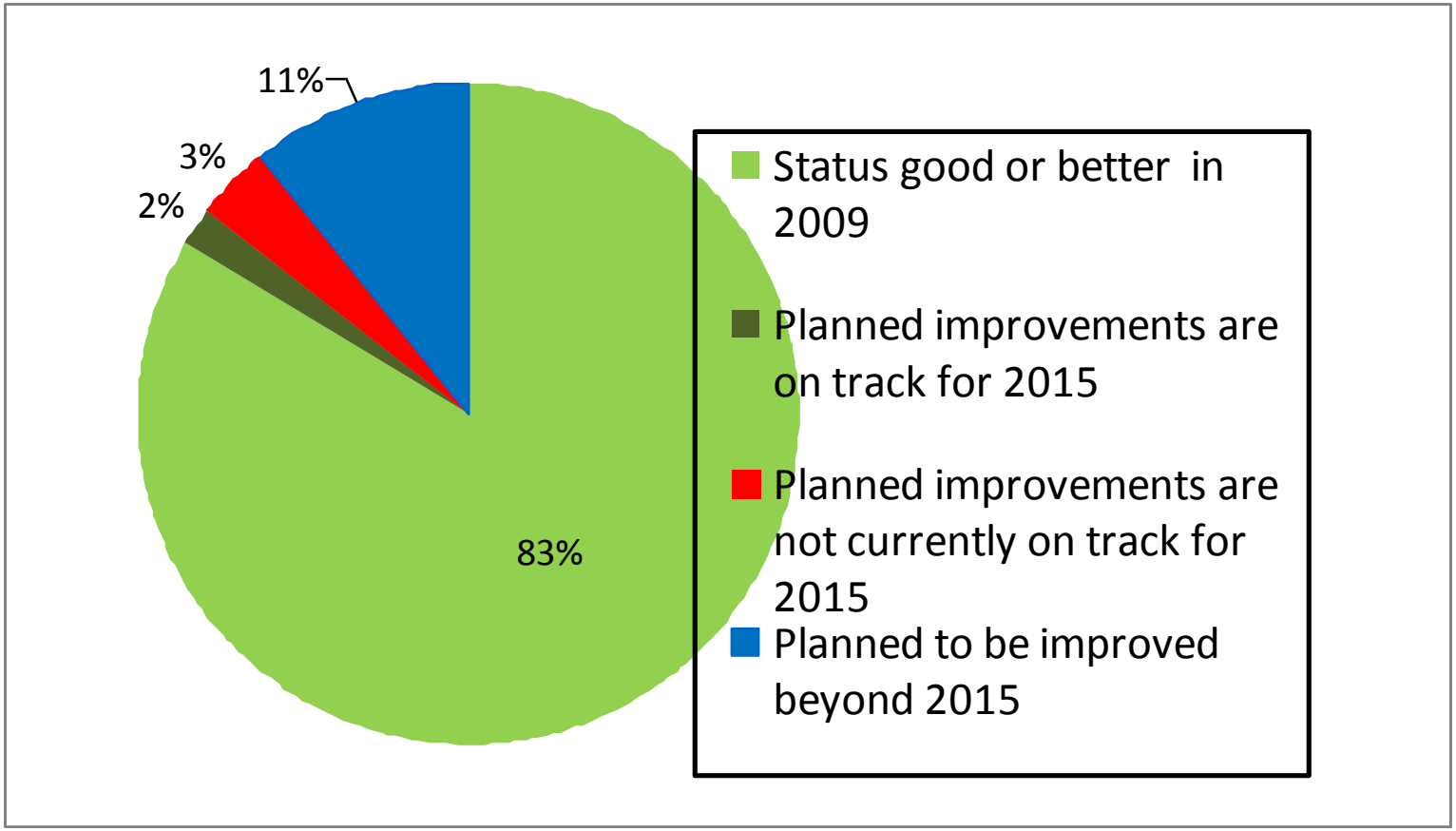
Supporting life

Assessing our progress on improvement targets

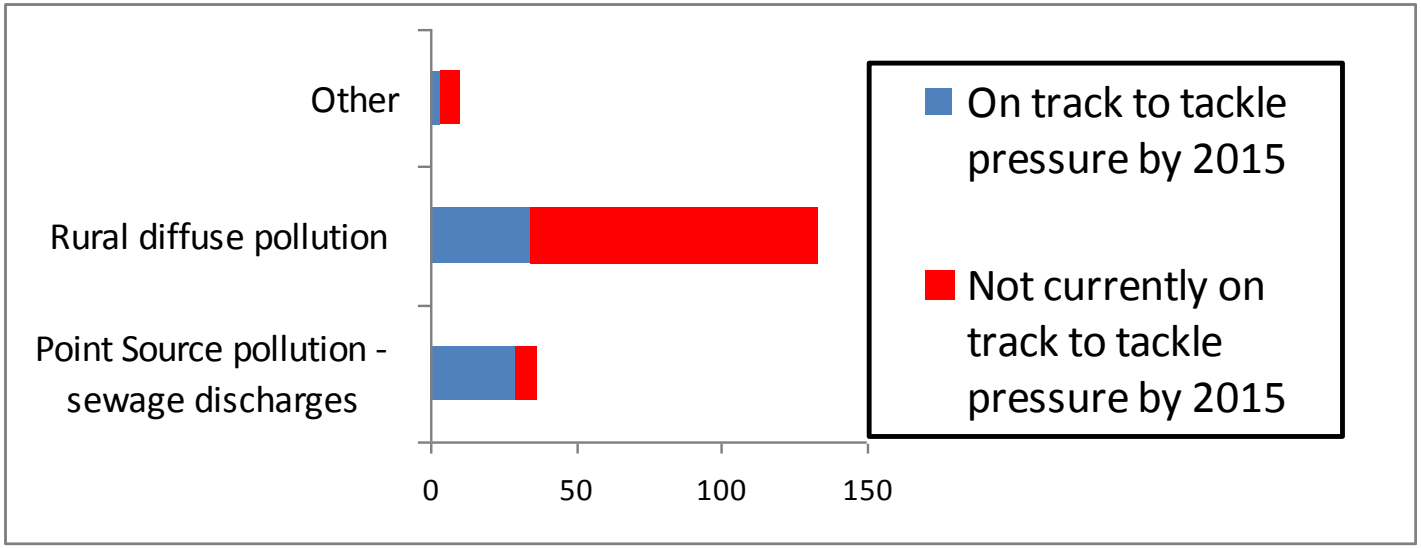
- Water Quality
- Flows and Levels
- Physical condition
- Invasive non-native species



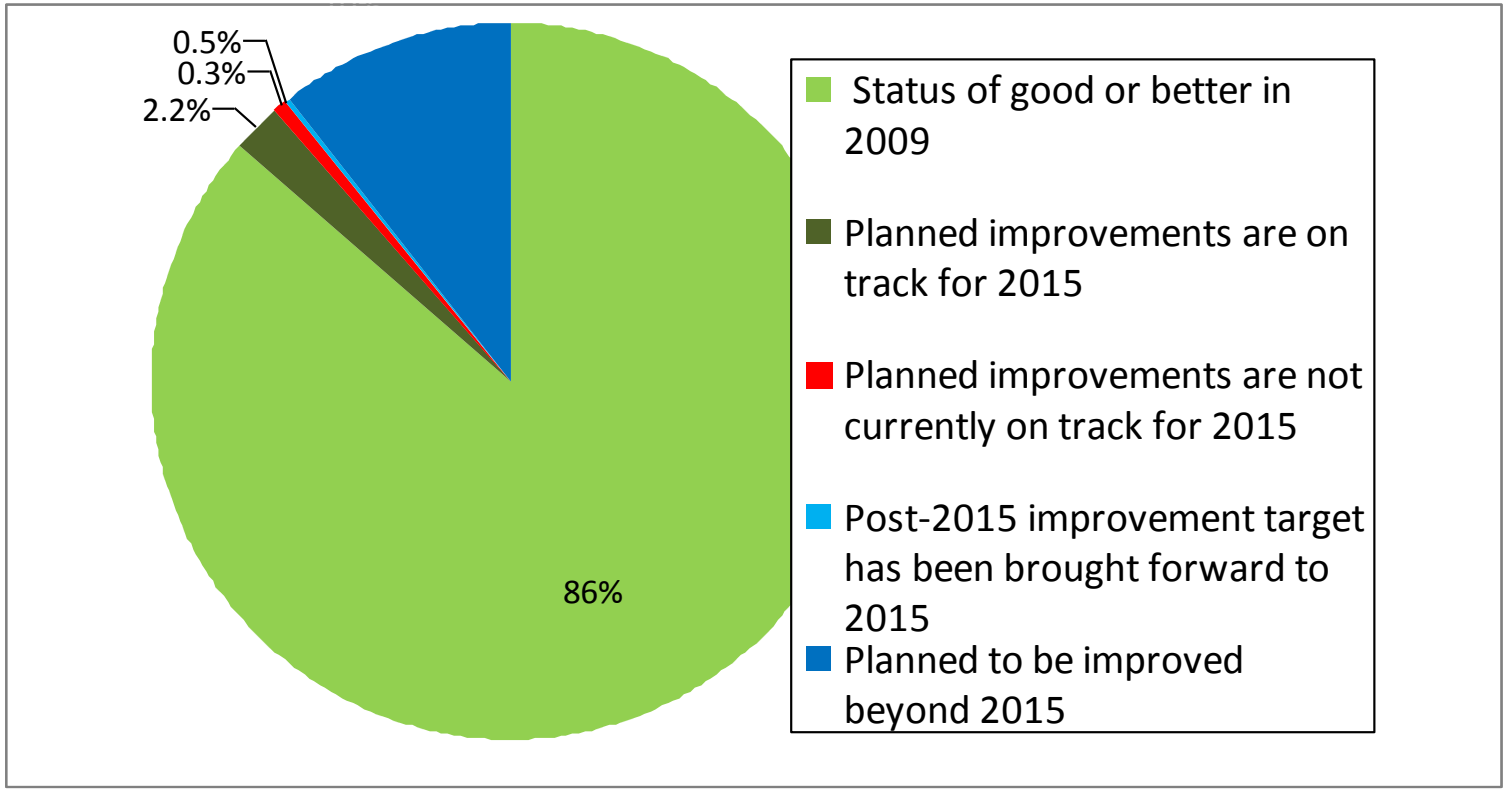
Water Quality Risk Assessment



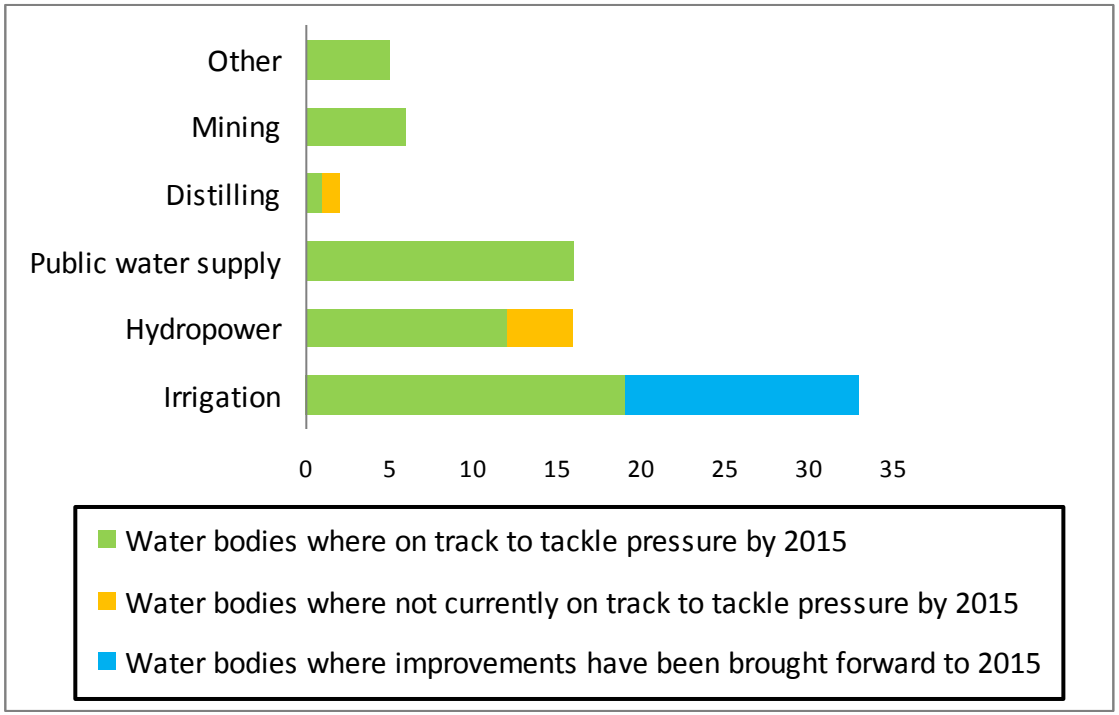
Analysis of water quality targets 2015



Water Resources Risk Assessment



Sector analysis of water resources targets 2015



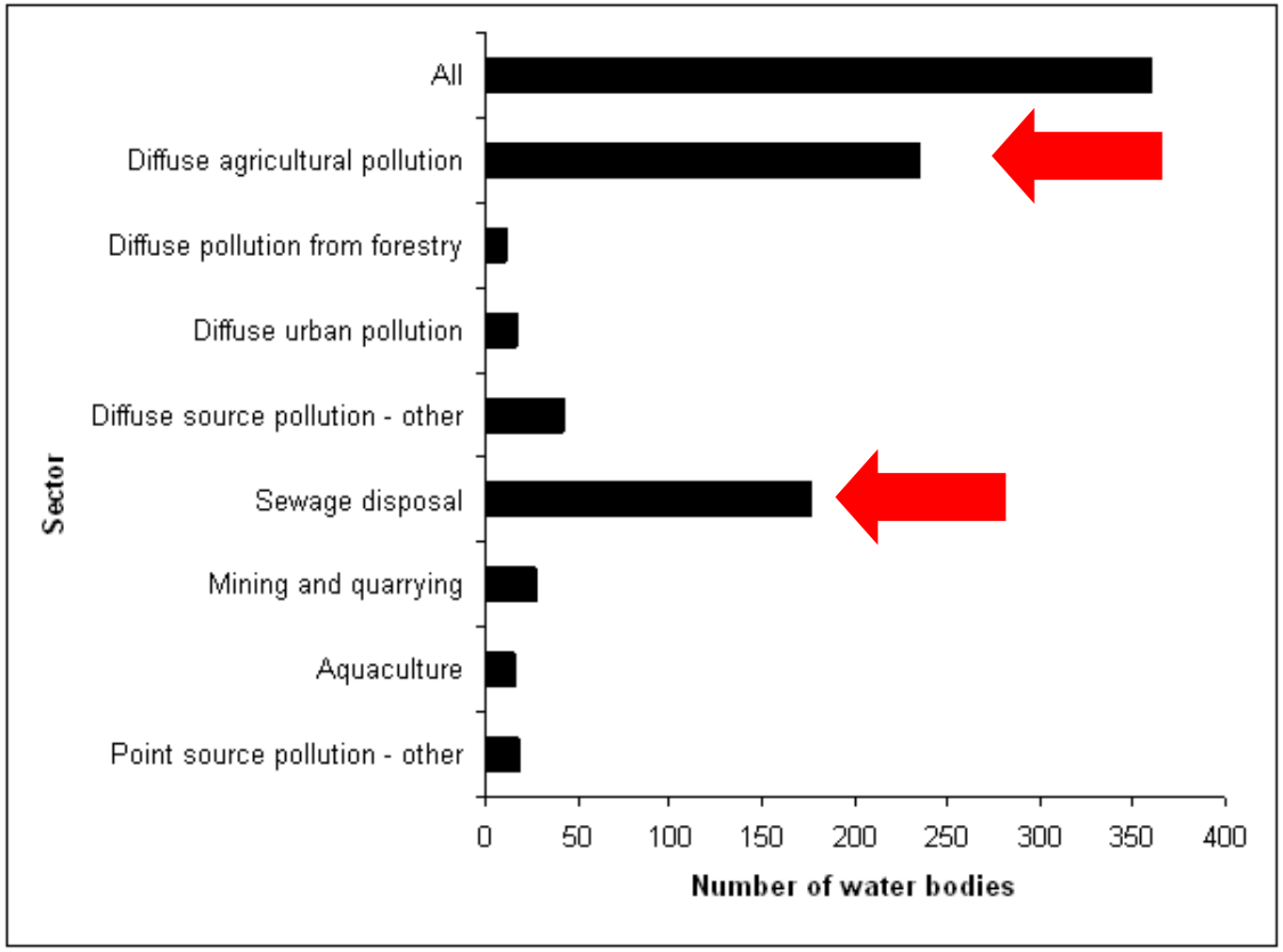
Risk of Deterioration for INNS

Source of impact	Species	Number of surface water bodies at risk of deterioration by 2027
Marine INNS	All	47
	Colonial Tunicate (*Didemnum vexillum*)	19
	Common Cord-grass (*Spartina anglica*)	8
	Leathery Sea Squirt (*Styela clava*)	**40**
Freshwater INNS	All	105
	Australian Swamp Stonecrop (*Crassula helmsii*)	2
	Riparian Vegetation[1]	15
	North American Signal Crayfish (*Pacifastacus leniusculus*)	**88**

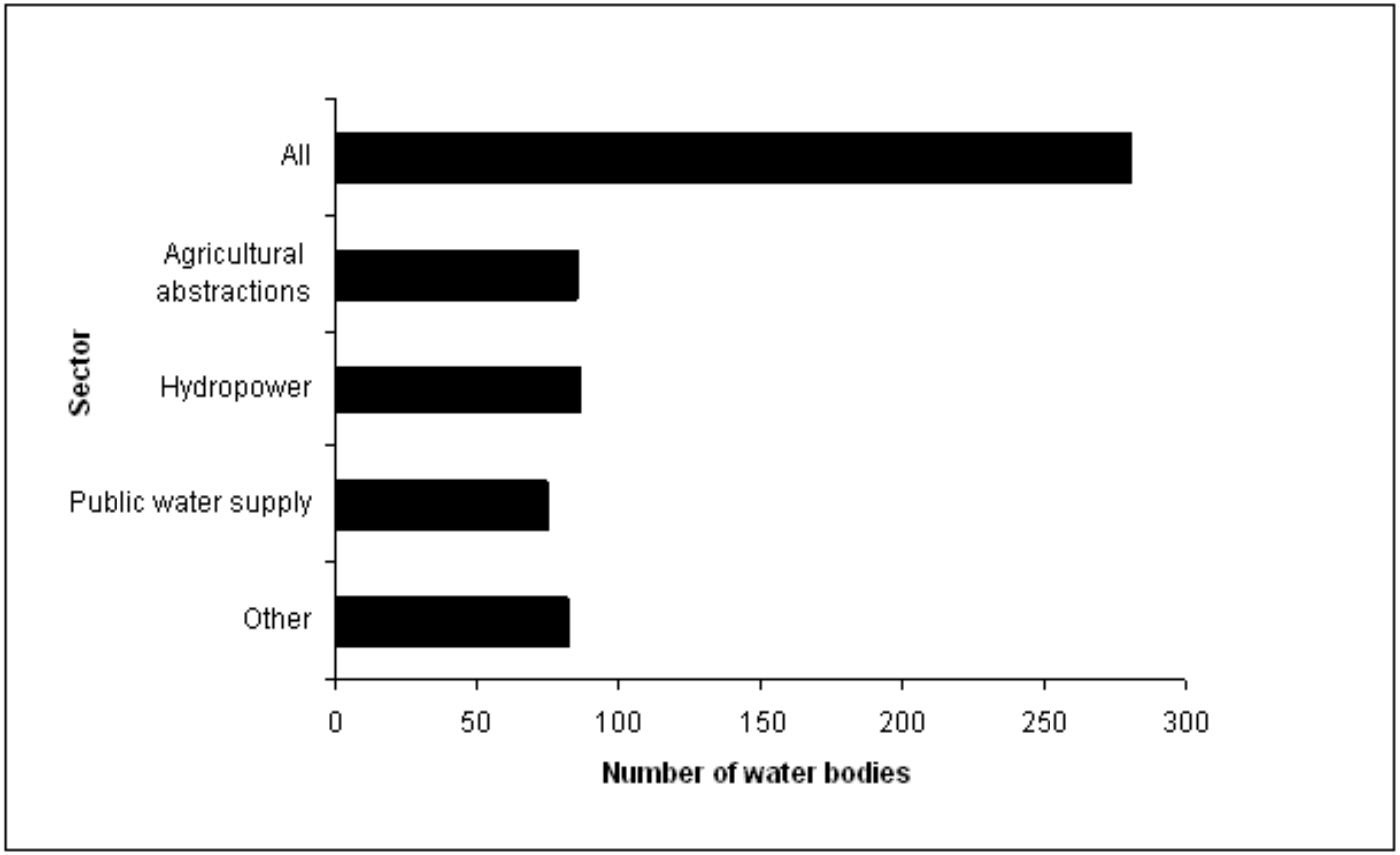
[1] Includes Giant Hogweed (*Heracleum mantegazzianum*), Japanese Knotweed (*Fallopia japonica*), Rhododendron (*Rhododendron ponticum*) and Himalayan Balsam (*Impatiens glandulifera*).

Improvements planned beyond 2015

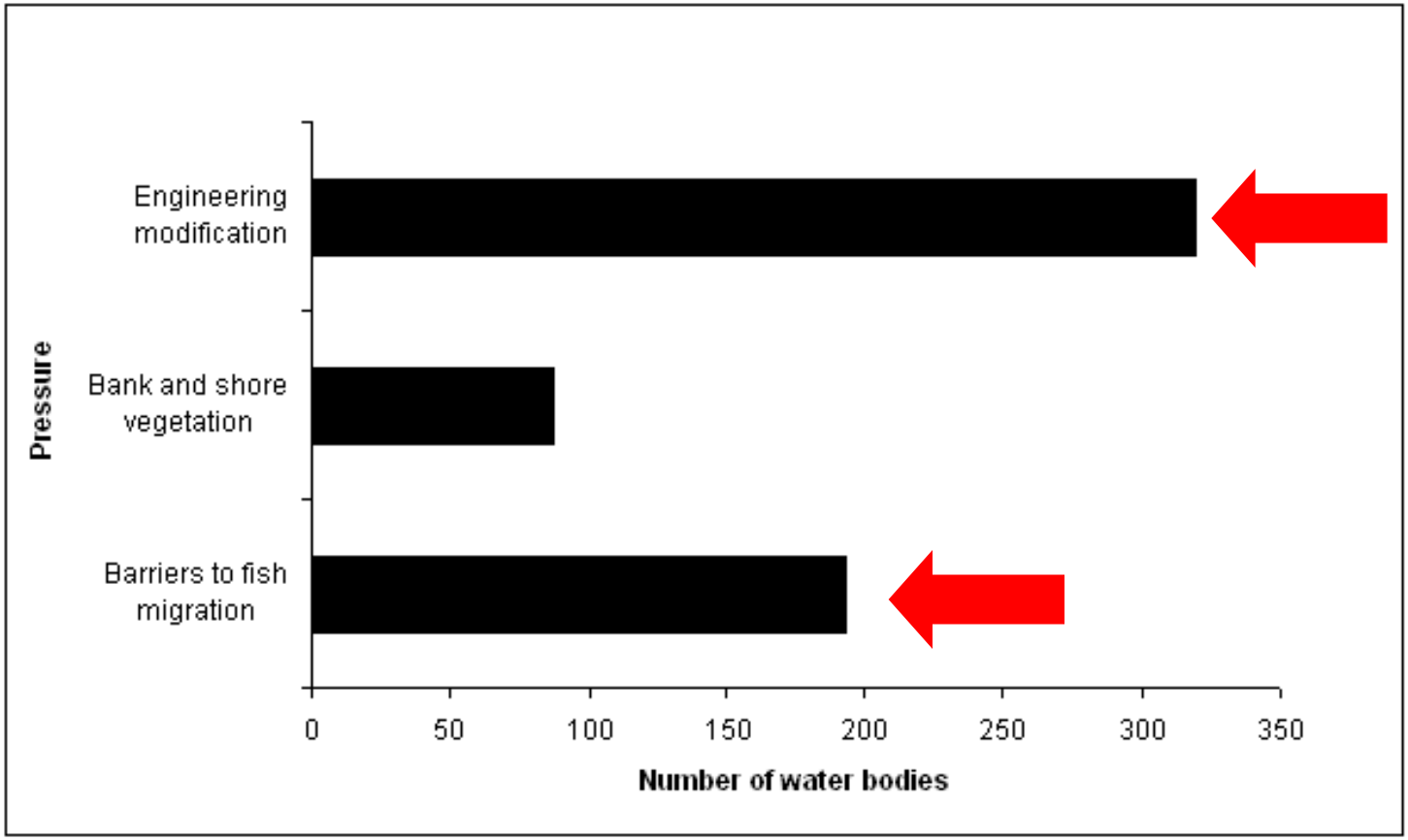
Water Quality



Flows and Levels



Physical Condition



Identifying key management challenges

Management challenges requiring a step change

Diffuse pollution from agriculture
Physical condition
Toxic substances and urban diffuse pollution
Contaminated land issues
Invasive non-native species

Scope to comment on management options

Rural Diffuse Pollution

Progress

- Priority Catchments
- 5,600 km rivers surveyed
- 1,270 farms visited
- 75% visited farms making positive changes

Challenge

- More numerous and widespread than originally thought
- Many improvements to do over next cycles
- Engagement process taking time
- Need to establish baseline compliance and consider additional targeted measures

Options

- Increase resources for working with sector (Land mangers)
- Re-prioritise and target funding
- Work to eliminate phosphorus in livestock feed
- Build on current training and education provision

Physical Condition

Progress

- Significant on-the-ground improvements delivered, particularly to fish barriers
- Developed restoration strategy
- Work with RAFTS to develop strategic approach to barrier removal
- Partnership projects delivered

Challenges

- Developing voluntary partnerships lengthy process
- Targeting restoration work where planned is challenging

Options

- Prioritise efforts where there are multiple benefit opportunities, working with other responsible authorities
- Expand efforts to build partnerships to deliver improvements

Toxic substances and urban diffuse pollution

Evidence

- Small number of water bodies failing for toxics
- new standards and new substances
- Focus on “Cessation”
- Ubiquitous and long lasting

Progress in developing understanding

- UKWIR Chemicals Investigation Programme
- SEPA Monitoring
- Emissions Inventory

Challenges

- Proposed EQS more stringent – further breaches likely
- Compliance with cessation/reduction objective will be extremely challenging for ubiquitous substances

Options

- Diffuse pollution: mechanisms to prevent entry e.g. more SUDS
- Improved understanding to target where highest loads occur
- Work with Scottish Water to mitigate from point sources (source control where end of pipe is very costly)

Water pollution from land contamination

Evidence

Difficult to identify

Risks are underestimated

Challenges

- Only small % of contaminated land sites are redeveloped
- Local Authority resources constrained for contaminated land

Options

- Improved policy framework to better deal with contaminated land affecting groundwater according to environmental risk
- Identifying clear priorities for action through RBMP

Invasive non-native species

Evidence

High risk of deterioration

Concerns over new species

Climate change implications

Progress

- Working with water users in a small number of catchments to control spread

Challenges

- No successful eradication of INNS from marine environment and unlikely in freshwaters
- Prohibitive cost
- Will take time to demonstrate effectiveness of strategies

Options

- More resources to focus on a greater number of catchments
- Tackling pathways to prevent arrival of INNS
- Promotion of biosecurity measures
- Eradication where control is successful

Consultation Aims

- **Indication of support on challenges**
- **Feedback on management options**

Key Messages

- Regulatory regime is achieving improvements
- Need a step change for land use issues such as diffuse agricultural pollution and changes to physical condition, others such as contaminated land, INNS and toxic pollution
- Partnership approach key to meeting challenges
- Need to further develop our management options with partners and target our efforts