Smarter Environmental Legislation

Scoping a new environmental legislative framework

Final report: June 2015
This project was commissioned by the Department for Environment Food and Rural Affairs (Defra) to consider options for legislative reform as part of its regulatory reform programme.

The research team engaged with stakeholders from a wide cross section of industrial sectors, NGOs, government departments and regulators, science and academic organisations and legal and technical bodies, and benefited from a high level external panel of industry, NGO, regulator and academic representatives.

The project was carried out and this report was produced between April 2014 and June 2015.

The project terms of reference are available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301854/pb14164-smarter-environmental-legislation-tor.pdf It was carried out as phase 2 of the Smarter Environmental Regulation Review, and draws on a detailed mapping of all environmental regulatory arrangements and a body of research on international practice and experience.

The research team was: Edward Lockhart-Mummery, Chris Taylor and Raminta Brazinskaite. The views expressed are not necessarily those of Defra nor do they constitute Defra policy.
Contents

• Executive summary
• Context, principles and methodology
• Future framework for policy and legislation
• Case study - Framework for natural environment policy and legislation
• International and UK reform experience
• Implementation paths
• Annexes, providing supporting research and analysis
  – Implications for EU reform
  – Stakeholder engagement method
  – Duties and duty of care
  – International reform experience case studies
  – Rolling environmental assessment
  – Local environmental planning
  – Case study – framework for natural environment
  – References and sources
Executive summary

Research purpose and objectives

- The purpose of this research has been to provide an evidence base to support the reform of the environmental legislation. Specifically, the project was set out to make initial proposals, taking account of the potential scale of problems, benefits and resources required for a new long-term direction and framework for environmental legislation, and candidate reform measures for legislation.

To do so, it has:

- Analysed the issues with current legislative framework
- Sought stakeholder views and engaged them in a deliberative process to develop proposals for reform
- Analysed delivery frameworks in the UK and abroad to draw parallels, as well as drawing on other relevant research and analysis
- Recommended options based on the synthesis of findings

Methodology

- This research was carried out with a broad range of industry, government and civil society groups. An external panel of business, NGO, government and academic leaders was selected to steer the work. Four sectors were initially selected to focus the development of ideas for the framework: Waste and resources management; Automotive manufacturing; Residential housing development; and Management of the natural environment. Deliberative roundtable discussions were held with each of these sectors, and with a mix of government, industry, NGO and academic experts. These activities were supplemented by desk research (e.g. into international experience of legislative reform). Findings were analysed and synthesised.
Executive summary

Findings

• Stakeholders say that the current legislative framework can be fragmented, overlapping, inconsistent and complex from the perspective of those who need to comply. This makes it harder to innovate and invest in longer term environmental solutions and erodes the efficiency and effectiveness of reaching desired outcomes. It over-relied on regulating certain sectors rather than integrating environmental objectives into all relevant decisions. Most of the framework was developed without a holistic understanding of how environmental outcomes are linked. At the same time pressures on the environment are increasing, as are society’s aspirations for the environment and industry’s capability to deliver.

• The stakeholders identify principles that they would like to see guide the design of future legislation, and core elements of the proposed reform of environmental legislation. In particular, they advocate defining these principles through a legislative framework.

• Research for this report has identified a number of examples of legislative reform of environmental policy within Devolved Administrations and abroad, and other policy areas within the UK where existing legislation has been brought under a single framework.

• The report then explores possible implementation paths and preparatory projects.

Recommendations

• The research proposes a framework for future policy and legislation based on:
  – long term objectives to enable innovation and investment in solutions and infrastructure
  – an integrated approach to data and assessment to inform a holistic understanding of issues and progress
  – long term strategic plans with environmental objectives embedded in cross government policies and industrial strategy sector plans
  – an independent body to provide scientific and evidence based advice for policymaking
  – integrated local planning enabled by a single local environmental data platform
  – transformed regulation based on a single approach to authorisation, inspection and enforcement
Executive summary

Recommendations (continued)

• Reforming the policy and legislative system requires a long-term plan. A single framework act could set out long term environmental objectives and radically simpler and more stable arrangements for achieving them. Secondary legislation and implementing arrangements could then progressively be reformed. Preparatory projects could include:
  – Establishing an integrated framework of environmental objectives
  – 25 year plan for the environment
  – Establishing integrated and accessible state of the environment reporting
  – Establishing an Environmental Committee to provide independent advice
  – Piloting approaches that harness third-parties to enhance assurance
  – Simplify licencing/permitting administration
  – Piloting alternative assurance models for permitted businesses
  – Piloting an integrated local environmental plans
  – Harmonising enforcement processes and penalties

• A phased approach would also enable alignment with reforms to EU policy and law. This project has drawn on domestic and international experience of legislative reform, and has fed into and drawn on the ongoing Make It Work programme with like-minded EU member states.
Project terms of reference

• The Smarter Environmental Legislation project will make initial proposals, taking account of the potential scale of problems, benefits and resources required for:
  – a new long-term direction and framework for environmental legislation
  – candidate reform measures for legislation and steps required for next 5-10 years

• Options proposed must
  – deliver environmental policy outcomes more effectively
  – reduce unnecessary burdens and free up capacity for businesses and others to innovate, diversify and grow
  – be practical and feasible in either the short or longer term
  – not result in unacceptable levels of risk
  – enable regulators to target their resources more efficiently and effectively

In summary they must provide a **double lock** – both:
  a) maintain and improve environmental protection , and
  b) reduce regulatory burdens and enable businesses to do the right thing

• Scope
  – Environmental legislation, with primary focus on Defra and England but working with other departments and Devolved Administrations
**Stakeholder engagement and research methods**

- The project was championed by a high level External Panel of business, NGO, government and academic leaders. The Panel provided advice and challenge to the Defra project team through a series of update meetings held every 1-2 months.

- Four sectors were initially selected to focus the development of ideas for the framework, and reflected in the expertise of the External Panel:
  - Waste and resources management – Robert Hunt, Executive Director, Veolia Environmental Services
  - Automotive manufacturing – Robert Walker, Senior Technical Manager at the Society of Motor Manufacturers and Traders
  - Residential housing development – Rob Pannell, Managing Director, Zero Carbon Hub
  - Management of the natural environment – Stephanie Hilborne, Chief Executive of the Wildlife Trusts

- The sectors were selected to cover:
  - a cross-section of the economy
  - most of the most important areas of legislation in terms of environmental impact, costs or benefits
  - sectors where complying with legislation is important for business viability
  - areas with scope for business innovation
  - both static and internationally mobile industries
  - sectors that think long-term with known appetite or initiatives for change

- One or more deliberative roundtable discussions were held with each of the sectors, averaging some 25 participants each, to gather stakeholder views and to test and develop emerging ideas. Participants were selected from stakeholders who have previously engaged with Defra in regulatory reform matters and as suggested by External Panel members, and included SMEs. Discussions were chaired by an External Panel member and attended by the External Panel chair. Typically 3 hrs in duration, discussion was structured using pre-circulated discussion notes and a flexible thematic agenda.

- Anonymised notes of the discussion were created by the project team and circulated to participants afterwards for validation.
Stakeholder engagement and research methods (continued)

• Other deliberative roundtable discussions, workshops and meetings were held with a mix of government, industry, NGO and academic experts (See slide 12 and Annex for further details on roundtables and workshops).
• These activities were supplemented by desk research (e.g. into international experience of legislative reform).
• Findings were then analysed and synthesised.

Limitations

• By necessity, the stakeholders included in the research form a small selection of the industries they represent. It has not been possible to verify within the scope of this research whether the views expressed correspond with wider industry views. As the aim of the project has been to provide a synthesis of the evidence base to formulate proposals, some of the stakeholders involved may hold views that do not correspond with findings of this report. A broader industry consultation would be necessary to determine the appetite for and acceptability of the proposals put forward in this report.
The project has been championed by a high level stakeholder External Panel

Peter Young (Chair)
Peter is director and former chair of the Aldersgate Group and a member of Defra’s Regulatory Challenge Panel.

Terry A’Hearn
Terry is Chief Executive of the Scottish Environmental Protection Agency. Chair of regulator roundtable.

Prof Andy Gouldson
Andy is professor of environmental policy at Bristol University and deputy director of the ESRC Centre for Climate Change Economics and Policy. Chair of academic roundtable.

Stephanie Hilborne, OBE
Stephanie is Chief Executive of the Wildlife Trusts. Chair of natural environment roundtable.

Robert Hunt
Robert is Executive Director at Veolia Environmental Services. Chair of waste industry roundtable.

Rob Pannell
Rob is Managing Director of the Zero Carbon Hub. Chair of residential development roundtable.

Robert Walker
Robert is Senior Technical Manager at the Society of Motor Manufacturers and Traders. Chair of automotive manufacturing roundtable.
A summary from the External Panel

Environmental legislation has grown cumbersome and poorly targeted as we pile one specific requirement upon another

- It has righted some of the worst environmental injustices and mainstreamed environmental protection as the norm for business behaviour, but was designed to reduce damage, not to make significant improvements e.g. regarding ecosystems

- The time is now right for reform to reflect this maturing and be able to tackle the complex and interconnected challenges we are left with

- This means progressive alignment of all domestic, EU and ultimately international legislative requirements behind common goals that are widely accepted and understood

- This has been done in other areas such as Health and Safety, and other countries like the Netherlands and Sweden are also pursuing the same idea

- The next step is to define a Framework Environment Act which aligns bundles of legislation as they come forward for reform and renewal

- The natural environment may be a good first bundle to tackle as existing legislation is complex and failing to reverse decades of decline, to the point that many ecosystems are in sub-optimal condition – a matter of concern to businesses and society alike
Many stakeholders have contributed to the design of outputs to date

Defining problems and opportunities

Developing framework iteratively

Executive summary and context
Future framework
Natural environment case study
International reform experience
Implementation paths
Options for pilot projects
Annexes

Start: Spring 2014

With additional dialogue and meetings including NFU, FSB, NGOs and legal experts.

Summer 2015: this summary
Key challenges identified by stakeholders

Environmental challenges remain despite significant improvements in recent decades:
• ONS estimated the value of UK natural assets to be £1.6 trillion in 2011
• Over 30% of the services provided by our natural environment are in decline
• Health impacts from cumulative pollution remain significant (e.g. poor air quality has health impacts of £16bn per year)

Societal challenges
• Population set to grow by 8m over the next 25 years
• Lack of access to quality environment contributes to growing burden of non-communicable disease and general poor health (e.g. obesity/stress)

Business competitiveness
• Simplification can deliver more environmental benefits from existing environmental compliance expenditure by business
• Need to remove obstacles to business innovation and investment in the environment
• Need to free regulatory resource to tackle polluters whilst enabling the compliant

Fiscal pressure
• Need to provide enhanced outcomes during a period of inevitable pressure on government budgets
This section provides a high level summary of the proposed framework for future policy and legislation, and outlines a possible structure for legislation and organisational roles to deliver it.
Legislation is currently complex and piecemeal, undermining efficiency and effectiveness

Setting policy outcome framework
- 280+ international agreements
- 160+ EU directives and 230+ EU regulations
- Multiple, inconsistent enforcement systems, with gaps

Deciding what businesses & others do across UK
- 700+ statutory instruments
- 20,000 guidance pages (was 100,000+)
- Changes frequently and unpredictably
- Disproportionate or misdirected

Assuring that risks are managed
- Overly prescriptive
- 12 national regulators
- 353 local councils
- 65 planned inspection regimes (was 250)
- 245 data requirements

Deciding what businesses & others do locally
- Piecemeal
- Multiple types of local spatial plans

Enforcing when necessary
- Complex system for businesses to navigate and comply with
- Multiple, inconsistent enforcement systems, with gaps

Smarter Environmental Legislation
The project is proposing a framework for future environmental legislation.

**Setting policy outcome framework**
- 280+ international agreements
- 160+ EU directives and 230+ EU regulations
- EU strategies and programmes

**Central Environment Act**
- That sets objectives and framework

**A long term environment strategy**

**A 5 year state of the environment report**

**Independent science scrutiny**

**Deciding what businesses & others do across UK**
- Radically simplified set of legislation and guidance,
  with a strengthened role for government to build environmental objectives into all departmental strategies and into industrial strategies

**Assuring that risks are managed**
- 3rd party audit and environmental management systems
- A unified regulator with singular visits and a single permit

**Deciding what businesses & others do locally**
- Single local environmental plan, with duty to cooperate in its delivery

**Enforcing when necessary**
- Simple system for businesses to navigate that encourages innovation
- Single enforcement system with consistent powers, processes and proportionate penalties

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**Executive summary and context**
**Future framework**
**Natural environment case study**
**International reform experience**
**Implementation paths**
**Options for pilot projects**
**Annexes**
Stakeholders anticipate significant benefits from the proposed new approach

**Current problems**
- Lack of vision for the natural environment
- Focus on single issues rather than environment as whole
- Complexity, process and regulatory conflicts are barrier to outcomes
- Limited and piecemeal access to data
- Focused on end of pipe issues and constraining activity
- Does not keep pace with changing industry
- Focus on waste rather than resources
- Lack of enforcement undermines competitiveness
- Lack of certainty and barriers to innovation
- Disproportionate approach across the sector
- SMEs find it difficult to comply with environmental regulations
- Lack of enforcement across the sector
- Lack of business certainty associated with environmental regulation and mismatch with business investment cycles
- Lack of a level playing-field, including international markets
- Big reporting burden, duplication. Need simplicity, clarity and transparency, especially in supply chain

**Benefits of new approach**
- Shared vision for the environment
- Aligning government policies
- Local empowerment to achieve environmental outcomes
- Enables landscape-level action
- Potential for integrated funding
- Enables people to innovate in finding solutions to future problems
- Clear framework to align other policies and incentives
- Encourages better environmental performance
- Frees resources for enforcement
- Long-term trajectory of environmental policy that allows to plan against and invest in
- More balanced approach for both existing and new housing
- Effective enforcement and right incentives
- Valuing waste as a resource
- Clear, long-term and science-based targets help convince investors
- Applying principles to ensure effective and efficient achievement of environmental goals on the ground
- Reduce reporting burden
- Proportionate penalties for breaking the law and strong incentives for high performance

**Stakeholders**
- Natural environment/Catchment managers
- Waste industry
- Residential development
- Automotive manufacturing
- International reform experience
Guiding principles identified for the design and operation of the new framework

- **Simple** – designed around users so people can easily understand what they need to do
- **Do once** – so people can respond easily and coherently to a single joined up system
- **Enabling** – the majority to do the right thing easily and transparently
- **Evidence based** – so it responds to real issues and is targeted
- **Co-designed** – so the best feasible solutions are found and owned
- **Predictable and outcome-focussed** – so businesses and others can innovate, plan and invest
- **Strategic** – so it targets problems at source rather than symptoms, and at the people who can and should provide solutions
- **Fair** – so it ensures a level playing field, apportions action within and across sectors in an objective and consistent way and can be enforced robustly
- **Proportionate** – so effort is focussed on what matters

...all defined specifically for environmental legislation so they are fully understood and legally sound
Core elements of the proposed framework

Setting policy outcome framework
- Central Environment Act that sets objectives and framework
- A long term environment strategy
- A 5 year state of the environment report
- Independent science scrutiny

Radically simplified set of legislation and guidance, with a strengthened role for government to build environmental objectives into all departmental strategies and into industrial strategies

Deciding what businesses & others do across UK
- Single local environmental plan, with duty to cooperate in its delivery
- Simple system for businesses to navigate that encourages innovation

Deciding what businesses & others do locally
- I'm clear on what to do

Assuring that risks are managed
- 3rd party audit and environmental management systems
- A unified regulator with singular visits and a single permit

Enforcing when necessary
- Single enforcement system with consistent powers, processes and proportionate penalties

Environmental objectives

Rolling environmental assessment

5 and 25 year plans

Environmental committee

Local environmental plans

Regulatory transformation
Environmental objectives

- Expressed in terms of environmental outcomes to be achieved, easily understood by everyone.

- Stable and long-term to provide clear signal to business and society so they invest and organise around them.

- Government as a whole is collectively responsible for introducing the right policies to meet the objectives, not just the environment ministry.

- UK is already committed to many long term outcomes through EU directives, international law and policy documents. This will therefore integrate, be more consistent and give more clarity to how they are to be achieved.

- Should be in legislation to give the stability needed.

- Examples of objectives:
  
  - Air that’s clean enough to support healthy lives
  
  - Water that’s clean enough for use whether to drink, bathe in etc
  
  - Thriving, resilient and diverse habitats rich in species for today and tomorrow’s society
Rolling environmental assessment

- System must be built on robust data and indicators, to understand
  - State of the environment including natural capital
  - Drivers – i.e. what influences environmental success
  - Impacts – i.e. why it matters to people
  - Future trends.

- This should
  - bring together all relevant indicators into one place
  - aggregate environmental data provided by private, third and government sectors
  - be underpinned by a real-time, map-based assessment that allows people to understand their local environment and feed in information
  - provide a formal report every 5 years (or agreed period).

- It could include
  - “How we’re doing” headline indicators on the front of Defra’s GOV.UK page
  - Compliance reporting.

- Rationalises existing fragmented landscape of data and monitoring systems.
5 and 25 year plans

- 25 year plan describes high level strategy to deliver objectives.

- 5 year plans:
  - Explain what’s required in each 5 year period to achieve 25 year trajectory responding to State of the Environment report
  - Contain longer term plans at outline level to set out what’s likely to be needed in 5, 10 and 15 years to give society a clearer policy signal.

- Plans take a systems wide approach to determine what action is optimal to achieve objectives including what should be achieved through:
  - government polices from all relevant departments
  - industrial sector plans
  - local area plans
  - regulation

- Co-designed with industry to ensure plans are achievable.

- Mechanisms needed to incentivise and assign accountabilities for implementation.

- The scope and delivery timetable for plans should be in legislation to provide long-term direction and certainty.
Environmental committee

- Oversees and quality assures the environmental assessment.
- Provides independent advice to Government on setting and meeting environmental objectives and objectives for natural capital.
- Conducts independent analysis into environmental science, economics and policy.
- Scrutinises valuation of benefits and whether proposals retain the integrity of legislative framework.
- Engages with and encourages a wide range of organisations and individuals to share evidence and analysis.
Local environmental plans

- Provides a single integrated local environmental plan rationalising up to 20 existing environmental plans.

- Plan explains the geographical area’s contribution to delivery of the national objectives, and sets local targets.

- Addresses all environmental objectives for the area, highlighting synergies and trade-offs. Includes plans for
  - Air quality
  - Soil quality
  - Water quality and quantity
  - Biodiversity
  - Public access
  - Flood risk management

- Provides a single open source of information about the local environment around which local stakeholders can agree action.

- Provides basis for local economic and development planning.
Regulatory transformation

Progressively replace the existing landscape of regulations with:

- **A basic duty of care towards the environment**
  - Like the Health and Safety at Work Act 1974 this would require all people who affect the environment to assess their impact and take reasonable steps to avoid harm with robust sanctions for failure. This would give people best placed to act responsibly for working out the optimal action.
  - It could also include a duty to cooperate where results need joint action.

- **A single outcome focussed approach to authorisation, assurance and enforcement for activities that materially change or pose risks to the environment**
  - Outcomes agreed in line with local environmental plans and sector plans
  - Standard rules available for simpler activities and more specialised approach for high impact sectors (like nuclear)
  - This framework allows flexibility in how people achieve outcomes but where needed or wanted, technical detail available through certified technical guidance, ideally approved through third party body.
  - Modernised assurance with more reliance on transparency and “equivalence” derogation
  - Effective enforcement with consistent powers and processes and proportionate sanctions.

- **Specific rules where needed**
  - For example bans for unacceptable practices, standards for traded goods and where risks are passed along supply chains.
### Key elements of legislation to enable the new end-to-end approach

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<th>Central framework act</th>
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<td>Objectives</td>
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<td>Environment Committee</td>
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<td>Regulatory body</td>
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<td>Duty of care</td>
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<td>Duty to cooperate</td>
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<td>General binding rules</td>
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<td>Framework for regulatory system</td>
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<th>Supporting secondary legislation</th>
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<td>Protected species and habitats</td>
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<td>Activities requiring registration</td>
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<td>Activities requiring permits</td>
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<td>Product standards</td>
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<tr>
<th>Material outside legislation</th>
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<tr>
<td>(Approved) codes of practice</td>
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<td>Official maps/designations</td>
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<th>Execution summary and context</th>
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- **Clear long term objectives stated in legislation**
- **Establishes statutory committee to advise government**
- **Regulatory body to deliver the regulations arising from the act, and responsibilities that are delegated to existing bodies such as local authorities**
- **Along the lines of: Parties have a duty to ensure, so far as is reasonably practicable, their activities do not diminish the quality of environment/elements of environment**
- **Along the lines of: Parties whose activities impact directly or indirectly on environment (whether licensed or not) have a duty to work together to co-operate and co-ordinate their activities to achieve environmental objectives.**
- **Apply to all. Can be stronger than what would be required by duty of care, but not weaker.**
- **Provides consistent framework for regulation, including structure for penalties and enforcement**
- **Identifies protected species and habitats**
- **Simple notification of activity to regulator to allow them to monitor cumulative scale. Regulator can screen applications and communicate rules that apply before granting permission.**
- **Permission for higher risk activities, with stronger assurance requirements**
- **Some product standards can be defined in legislation (e.g. vehicle emission standards); others may be recognised in legislation (e.g. BREF, construction product standards)**
- **Describe what is reasonably practicable. Doesn’t have to be written by government. May be recognised by court as defence of reasonable action to fulfil duty**
- **Maps of spatial elements of rules**
## Implications for organisations and roles

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<tr>
<th>who</th>
<th>what</th>
<th>how</th>
<th>impact</th>
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<tr>
<td>Central government</td>
<td>• Reviews environmental assessment</td>
<td>• Developing an overarching environment strategy would require much more cross-departmental working than Defra has done historically.</td>
<td>Reduced workload and more joined up as vast simplification compared to current array of legislation and policies.</td>
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<td></td>
<td>• Prioritises and sets strategy - including local objectives</td>
<td>• Developing sector-specific strategies would require a more systematic approach to industry engagement. This could be supported through a matrix-based organisational structure of customer/industry-focused and policy-focused staff.</td>
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<td></td>
<td>• Analyses drivers and how objectives are met by sectors /OGDs</td>
<td>• Better integration of environmental policy into strategies of other departments would require a more systematic approach to inter-departmental working, which could be supported by allocated responsibilities within customer/industry- or policy-focused functions.</td>
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<td></td>
<td>• Develops industrial strategy</td>
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<td>• Manages legislation</td>
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<tr>
<td>Environmental Committee</td>
<td>• Scrutinises environmental assessment</td>
<td>• An Environmental Committee and supporting sub-committee structure would need allocated resources to provide a supporting secretariat.</td>
<td>Could replace and rationalise existing advisory committees already established for Defra.</td>
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<td></td>
<td>• Assesses whether plans meet objectives</td>
<td>• It could be formed from the Natural Capital Committee or extend the work of the Committee on Climate Change</td>
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## Implications for organisations and roles

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<th>who</th>
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<tr>
<td>Regulator</td>
<td>• Issues permits</td>
<td>• Regulator resources focused on higher risks, with greater</td>
<td>• Reduced workload and more joined up as radically simplified</td>
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<td></td>
<td>• Undertakes enforcement</td>
<td>dependence on 3rd party assurance.</td>
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<td>• Greater focus of regulator resources on enforcing law.</td>
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<td>Regulator and/or 3rd parties</td>
<td>• Monitoring</td>
<td>• Greater role for environmental monitoring (e.g. of environmental</td>
<td>• Reduced workload as radically simplified</td>
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<td></td>
<td>• Communication</td>
<td>quality, of business performance) for 3rd parties including public,</td>
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<td>• Assurance</td>
<td>NGOs could be facilitated by greater data transparency.</td>
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<td>• Assurance systems could be designed to enable a larger role for</td>
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<td>non-government bodies (e.g. accredited assurance businesses), freeing</td>
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<td>regulator resource to focus on greatest risks.</td>
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<tr>
<td>Local environmental body(s)</td>
<td>• Produces local environmental plan</td>
<td>• Existing national network of catchment partnerships or Local Nature</td>
<td>• Reduced total workload at local level by rationalising existing</td>
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<td>partnerships or Local Nature Partnerships may provide a logical focal</td>
<td>patchwork of arrangements</td>
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<td>point for local environmental planning, although alternatively the</td>
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<td>activity could be led by local authorities or national regulators.</td>
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**Executive summary and context**

**Future framework**

**Natural environment case study**

**International reform experience**

**Implementation paths**

**Options for pilot projects**

**Annexes**

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**Smarter Environmental Legislation**

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28
Case study: Framework for natural environment policy and legislation

This section examines how the proposed framework would apply to policy and legislation concerned with the natural environment.
Case study selection

• In order to test how the proposed framework for future legislation could work in practice an area of Defra legislation was selected.

• Candidate areas for consideration included
  – Waste and resource management
  – A specific industry e.g. commercial construction, automotive manufacturing
  – Natural environment.

• Natural environment legislation was selected because
  – Various reviews have highlighted the potential for reform (e.g. Law Commission)
  – Research and stakeholder feedback has indicated particular issues of fragmentation and lack of clarity
  – Despite a significant body of natural environment legislation being in place, some of the UK’s ecosystems are in long-term decline (National Ecosystem Assessment)

• The following section considers how implementing each element of the framework could improve effectiveness and efficiency of the existing stock. Further supporting analysis is provided in annexes.
The proposed framework could offer significant benefits for natural environment legislation

• Bringing together natural environment objectives would enable better decision-making.

• A rolling environmental assessment would highlight national and local priorities.

• Sectoral industrial strategies would be compatible with a 25 year plan to restore biodiversity.

• The Environmental Committee would provide coherent advice to government.

• Single local environmental plans would provide a better focus for local action.

• Regulatory systems would be coherent, integrated, efficient and effective.
Bringing together natural environment objectives would enable better decision-making

Current situation

• Legislation has developed over recent decades around individual policy objectives. The resulting legislative framework appears complex to those who have to comply with it, who have to deal with many pieces of legislation.

• How to deal with co-benefits and trade-offs is not always clear. For example, legislation concerning water quality, habitat and species protection, and flood risk management is separate and has led to separate delivery programmes. However, these objectives interact significantly in land-management decision making, and coordinated action can deliver reduced flood risk, better habitats and better water quality. At present such opportunities may be missed.

Potential benefits of the new framework

• Bringing objectives together in one place in legislation, expressed in a consistent, easy to understand format would make it easier for everyone to align activities towards achieving them. Legislation would also need to make clear how to deal with co-benefits and trade-offs.

• In some cases (e.g. water or air quality) objectives are already quite clearly defined in legislation. Other environmental objectives (e.g. to enhance natural capital) require further definition and new measurement systems. Also new currently unknown objectives may emerge. So the legislative system needs to be able to accommodate new objectives as they develop.
A rolling environmental assessment would highlight national and local priorities

Current situation

• Measurement of environmental quality and the factors affecting it is required by some items of legislation (e.g. WFD). UK indicators feed into the European Environment Agency 5-yearly State of the Environment Report.

• The National Ecosystems Assessment provided a ground-breaking analysis of the state of the UK natural environment in 2011.

• Recent work by the Natural Capital Committee has underlined the need for a new system of measurement for natural capital, which is being developed by the Office for National Statistics and businesses.

• The government is committed to opening access to data to create opportunities for people in the UK making their living from food, farming and the environment.

• However, at present a single rolling environmental assessment does not exist.

Potential benefits of the new framework

• Building on these foundations, the new framework would require that a rolling environmental assessment is undertaken. This would provide a repository of readily accessible information about the state of the natural environment (e.g. water quality, condition of habitats), pressures upon it (e.g. locations of permitted sites), and responses (e.g. conservation designations).

• At both a national and local scale this would help maintain focus on what matters, and in turn inform the design of legislation and policy to ensure measures are coherent and coordinated.
Sectoral industrial strategies would be compatible with a 25 year environment plan

Current situation

• The 2011 Natural Environment White Paper was the first on the natural environment for over 20 years, and led to the establishment of the Natural Capital Committee (NCC).

• In this parliament the government will work with the NCC to develop a 25 Year Plan to restore the UK’s biodiversity.

Potential benefits of the new framework

• The new framework would require long-term government planning for the natural environment

• Sectoral strategies (e.g. for farming, transport) would explicitly address environmental objectives, increasing the efficiency with which they are achieved, and reducing the scope for uncoordinated messages to industry.
The Environmental Committee would provide coherent advice to government

**Current situation**

- Defra has multiple advisory committees, reflecting the wide range of issues for which the department is responsible.
- The Natural Capital Committee has been developing a natural capital accounting approach focused on improving natural capital.

**Potential benefits of the new framework**

- A single Environmental Committee would provide advice to government on all aspects of environmental protection, including the natural environment.
- It would take a holistic approach across all environmental objectives, providing a better focus to support optimised decision-making.
Single local environmental plans would provide a better focus for local action

Current situation

• There are multiple local plans relating to the management of the natural environment. Local Nature Partnerships and Catchment Management Partnership pilots have been put in place to improve coordination of local environmental planning.

• However, the system remains administratively complex and time-consuming. Stakeholders report multiple demands on local stakeholders to participate in planning, which may not be best use of their time, and discourages involvement. Opportunities to achieve multiple outcomes across environmental objectives may be missed.

• Stakeholders also report that uncertainty in the continuity of local governance structures undermines their ability to plan for the long-term.

Potential benefits of the new framework

• Consolidated local environmental plans would bring together plans for all aspects of the natural environment, including for example biodiversity, water quality and flood risk management, building on the new rolling environmental assessment described above. The framework would provide stability in local governance structures, as required to support long-term planning to deliver environmental outcomes (e.g. multi-decade plans to restore biodiversity).

• Implementation could be tackled in three increasingly challenging phases: (1) bringing together information into a single information management approach, (2) requiring local parties to cooperate in the development of a single plan, and (3) reforming decision-making systems and processes.

• On the face of it this approach is consistent with the requirements for plan production in EU directives.
Regulatory systems would be coherent, integrated, efficient and effective

Current situation

- Multiple regulators implement regulations affecting the natural environment, e.g.
  - Development planning (local authorities, NE, EA)
  - Wildlife licenses, SSSI/ countryside stewardship (NE)
  - Felling licenses (FC)
  - Land management requirements (e.g. GAEC/SMR system) (RPA/NE/EA)
  - Flood consents (EA)
  - Environmental permits (EA)

- Complex system of regulatory bodies and regulatory requirements can be confusing for industry, and can lead to seemingly contradictory messages and requirements.

Potential benefits of the new framework

- Clearer integrated objectives for the natural environment would provide a better basis for deciding on appropriate action. They would provide the basis for integrated outcome-based regulatory controls, affording greater flexibility to find the best way to achieve outcomes.

- A general duty of care for the environment supported by codes of practice could complement this outcome-based approach.

- A duty to cooperate could provide a stronger incentive for local cooperation and action to achieve environmental objectives locally and allow communities to remove “blockers” to environmental progress.
Comparison of framework and existing natural environment legislation

- A sample of existing natural environment legislation has been compared to the outline legislation structure illustrated here.

- This analysis suggests that the model illustrated here includes the main elements of legislation required.

- The duty of care/codes of practice structure could accommodate some existing requirements e.g. oil storage requirements to prevent water pollution.

- Other requirements would be captured as general binding rules (e.g. protection of birds).

- Some environment-related legislation (e.g. for heather and grass-burning) addresses both environmental and other social objectives such as health and safety, illustrating the need to provide a framework that integrates with other bodies of legislation.
## International and UK reform experience

This section highlights features of relevant examples of international and UK experience of legislative reform. Detailed analyses are provided in the supporting annex.
International legislative reform experience

- Dutch Environmental Planning Act (currently being drafted): Consolidating environmental and development planning legislation into a single coherent act.

- German Environmental Code (not implemented): Aimed to consolidate environmental legislation into a single code. Developed draft code over several years, but unsuccessful in passing into law.


- Swedish Environmental Code 1999: Consolidated Swedish environmental law into a single code. Also accompanied by 16 high-level societal objectives for environmental quality.

- Queensland Australia Environmental Protection Act 1994: Established duty-of-care for environment, supported by codes of practice.


- New Zealand Resource Management Act 1991: Overhauled environment and planning legislation, providing an integrated system with significant devolution of decision making to local level.
UK legislative reform experience

- Environment (Wales) Bill: will provide, among other things: Natural Resources Wales (NRW) with a general duty aligned to the sustainable management of natural resources, and enhanced powers to undertake land management agreements and experimental schemes; public authorities with a reshaped requirement to seek to maintain and enhance biodiversity; a State of Natural Resources Report (SoNaRR), a National Natural Resources Policy (NNRP) and area statements.

- Regulatory Reform (Scotland) Act 2014: Provides for a new integrated framework for environmental regulation, to help simplify procedures for SEPA and businesses; new enforcement tools to allow SEPA and criminal courts to better tackle environmental crime; a new statutory purpose for SEPA.

- Climate Change Act 2008: Established high-level long-term objectives for carbon reduction and committee to support planning and monitor progress.

- Health and Safety at Work Act 1974: Established new duty-of-care based legislative system for health and safety, transforming multiple items of legislation into a more coherent body, supported by codes of practice.
This section explores possible implementation paths for the proposed policy and legislative framework. Preparatory projects aligned to Defra’s 5 and 25 year plans could lay the foundations for a framework act and a bundle of reforms.
Principles for implementation

Reforming the body of environmental legislation cannot be done overnight. A review method needs to be developed, which will ensure the following principles are applied during implementation:

• **Preserve existing protections:** To ensure environmental protection is not eroded as a result of the reform process, existing measures must not be repealed until replacement protections are in place.

• **Secure benefits throughout:** Reforms should be sequenced to ensure that each stage delivers substantive benefits for the environment, economy and society.

• **Minimise disruption:** Reforms should be clearly explained well in advance and take into account the investment cycles of businesses affected, to minimise disruption.

• **Co-design:** Political leaders, citizens, industry, NGOs and other stakeholder groups should all be involved in a creative process of open policy making to ensure the best result and that public trust and support is built.

• **Be government wide:** Planning must ensure that the implementation pathway is feasible within parliamentary time and government administrative resources.

• **Align with EU reform programme:** In the short term, reforms should align with the EU reform programme, because of the scope to influence EU change and minimise disruption. In the longer term, the UK should influence EU policy to complement the UK vision.
Method for implementation

The main steps are proposed to include:

- **Design the legislative architecture:** This should establish what a framework act includes, likely to be those elements that apply horizontally across environmental issues and that are resilient to change. It should establish what secondary legislation should include and how it should be structured, for example around economic activities.

- **Develop the framework Environment Act:** This will include, amongst other things, articulating environmental objectives some of which will need to be defined for the first time in legislation, the status and accountabilities for objectives and establishing principles for decision-making.

- **Establish the prioritisation of secondary legislation:** Legislation can be clustered into sets that can be reformed independently. Criteria will be used to prioritise clusters of legislation for reform, including:
  - Gap analysis between desired and actual environmental, economic and social impact;
  - Interdependencies between bodies of legislation;
  - Maturity of business sectors affected and knowledge to say what’s needed in short and medium term;
  - Timing of EU reforms.

- **Reform secondary legislation:** This will determine what provisions are needed to achieve the objectives. It will review existing clusters of legislation and determine what needs to be in place in the new legislation before the old legislation is repealed. In particular it will review, according to preset criteria, whether objectives are best achieved using the basic regulatory model or where specific rules are needed.

- **Reform implementing arrangements:** Defra organisations and other relevant public bodies are subject to rolling programmes of reform or transformation. This new framework will set the future direction for reform and make sustained reform, which is currently constrained by the regulatory landscape, much easier. It will need to be sequenced in line with the implementation principles.
Options and pathways

**Suggested pathway – preparation, framework act, step-wise reform**

- **2015-2020**: Preparatory projects
- **2020-2025**: Framework act
- **2025-2030**: Reform set 1
- **2030-2035**: Reform set 2

- **2015 - 20**: Defra’s 5 & 25 year planning process could incorporate preparatory projects to specify key elements of a future framework act.
- Further sets of reforms implemented over 5-10 year period.

**Alternative pathway A – rapid wholesale reform in this parliament**

- **2015-2020**: Wholesale reform including framework act
- **2020-2025**
- **2025-2030**
- **2030-2035**

Undesirable and infeasible, because:
- Creates excessive and counter-productive business disruption.
- Misaligned to investment cycles.
- Misaligned to European timetable.
- Defra and agencies lack capacity to deliver.
- Lack of parliamentary time to deliver.

**Alternative pathway B – incremental change**

- **2015-2020**: Incremental reform
- **2020-2025**: Incremental reform
- **2025-2030**: Incremental reform
- **2030-2035**: Incremental reform

Undesirable because:
- Limited impact on coherence and therefore limited benefit to business.
- Very limited/no improvement in certainty, another key business ask.
- Overall, continuing with business as usual policy making unlikely to turn around declines in UK environmental quality.
Suggested pathway – preparation, framework act and step-wise reform

During 2015 Defra is establishing 5 year and 25 year plans. It is suggested that this process should incorporate preparatory projects to specify key elements of a future framework act. The framework act and the reform of a substantive set of items of legislation could then follow in the next parliament. Further sets of reforms could be implemented in the following parliaments, over a 5-10 year period. The framework act would provide a consistent structure for environmental legislation, and ensure that future reforms progressively increase coherence and reduce fragmentation. This pathway would deliver benefits to the environment, economy and society from the implementation of the first set of reforms, with further benefits delivered over following parliaments.

The legislative reform sets would need to be carefully constructed to ensure that the implementation principles described above are applied. Illustrative approaches to bundling are set out below. Further work is needed to determine the full set of bundles, which elements should be contained in primary or secondary legislation, and their priority order:

• **A natural capital/habitats and species bundle**: Various reviews over recent years have highlighted the potential for reform of this body of legislation and the urgency to deliver a better outcome (e.g. National Ecosystem Assessment, Natural Capital Committee, Natural Environment White Paper)

• **A resources and waste bundle**: Targets are currently under review at EU level, so UK reform should align with these to ensure compatibility. This bundle could incorporate elements addressing circular economy and producer responsibility objectives, and product standards.

• **A generic processes bundle**: Bringing together assurance, penalties, enforcement, evaluation/foresight, plans.

• **Bundles focused on receptors**: For example protection of water, air, land. This could be further subdivided or aggregated around point source pollution and diffuse pollution.
Suggested preparatory projects (1 of 2)

Suggested preparatory projects are detailed below. They would make progress towards the long-term implementation of the framework, without the immediate need for new legislation. Projects should be win-win-wins, delivering benefits for society, business and the environment. They should also establish detailed specifications for legislative reform to deliver further benefits in the longer-term.

1: Establish objectives framework underpinned by delivery strategies: Bring together a comprehensive view of environmental objectives being pursued across government (e.g. water quality, air quality, pollution from transport, natural habitats, carbon emissions). Articulate all objectives in a consistent framework, including easy-to-understand headline, the intended outcome(s), and technical specification of performance measurements and measurement methodology. Establish rationale for relative importance and prioritisation, making trade-offs explicit and explaining target balances where necessary. Develop overarching delivery strategy to achieve environmental objectives, including connections into other departmental / industry strategies.

2: Establish integrated performance dashboard/ state of environment report: Publish comprehensive set of national indicators linked to environmental objectives (see 1), showing current position and historic/predicted trends, with commentary from government on actions to be taken where necessary. Initially reporting could be on a 5-yearly cycle, in the form of a ‘state of the environment report’. Alternatively data could be updated more frequently where possible, and presented on-line as a dashboard for easy public access and interrogation.

3: Establish a non-statutory/shadow Environmental Committee: Put in place a committee of experts to assure the quality of scientific data and analysis underpinning understanding and measurement of the environment, and associated social and economic impacts, and to provide advice to government on steps that could be taken to improve. The committee would have a wide remit across all of Defra’s environmental objectives, which is likely to require a system of sub-committees to address different specialist areas.
Suggested preparatory projects (2 of 2)

4: Pilot approaches that harness third-parties to enhance assurance: Advances in environmental monitoring technologies, corporate approaches to assuring environmental standards, and public use of social media and mobile technologies, are likely to provide opportunities for new approaches to providing assurance of business environmental performance over coming years. Improving access to environmental data (e.g. air quality, water quality, site emissions) is likely to be an important enabler. Undertake pilot work with third-party innovators (e.g. assurance businesses, app developers, retailers) to identify opportunities and how government could support and enable.

5: Simplify licencing/permitting administration: Consolidate administrative processes for licencing and permitting in one easy-to-find place on gov.uk.

6: Pilot alternative assurance models for permitted businesses: Building on previous EA pilots of ‘earned recognition’ approaches and NI experience of ‘prosperity agreements’, pilot new approaches to direct regulation of selected permitted businesses. For example, approaches might include reducing inspection requirements because businesses provide direct access for regulators to assured monitoring systems, agreeing more ambitious corporate rather than site-based performance targets for emissions reductions, or use of codes of practice in place of prescriptive rules. Any such approaches would have to operate within constraints of existing legislation. Pilot and develop duty of care.

7: Pilot an integrated local environmental plan: Design a single environmental plan for a local area, that integrates planning for all environmental objectives. Establish governance and processes (including for geospatial information management) through which the plan can be developed and delivered.

8: Harmonise enforcement: Establish a single framework for enforcement of environmental rules, so that procedures and penalties and consistent and proportionate. What can be achieved without legislative change may be limited, so a first step would be to establish an ideal detailed framework, analyse the gap with existing measures, and identify and implement any improvements that can be achieved without changing legislation. Pilot and develop duty of care.
Suggested pilot projects address key elements of the framework

**Setting policy outcome framework**
- 280+ international agreements
- 160+ EU directives and 230+ EU regulations

**Deciding what businesses & others do across UK**
- Radically simplified set of legislation and guidance, with a strengthened role for government to build environmental objectives into all departmental strategies and into industrial strategies

**Deciding what businesses & others do locally**
- Single local environmental plan, with duty to cooperate in its delivery

**Assuring that risks are managed**
- 3rd party audit and environmental management systems
- A unified regulator with singular visits and a single permit

**Enforcing when necessary**
- Single enforcement system with consistent powers, processes and proportionate penalties

Executive summary and context | Future framework | Natural environment case study | International reform experience | Implementation paths | Options for pilot projects | Annexes
Alternative pathway A – rapid wholesale reform

Alternatively, an attempt could be made to reform the whole body of environmental legislation in one parliament.

This approach is considered to be both undesirable and infeasible, because:

- **Business disruption**: This approach would create a great deal of uncertainty for industry, directly in conflict with the intention of creating a more stable, predictable legislative framework.
- **Misalignment to investment cycles**: Rapid change would not be aligned to business investment cycles.
- **Misalignment to European timetable**: Changes to the EU regulatory framework are anticipated shortly after the next parliament, which would then require new reforms to be applied.
- **Lack of capacity**: This scale of reform would require considerable additional capacity within Defra and its agencies, and would be likely to require more parliamentary time than will be available.
Alternative pathway B – incremental change

Another alternative would be to commit to an incremental implementation of the principles of the framework for gradual implementation as bodies of legislation come up for reform.

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This approach is not recommended because:

- **Limited impact on coherence and therefore limited benefit to business**: Without a framework act to steer future legislative design, adherence to its principles will be patchy and policy making will remain siloed.

- **Very limited/no improvement in certainty, another key business ask**: This approach would do little if anything to improve the predictability of legislation, as its continued implementation beyond the next parliament will be more uncertain.

- **Likely to be untenable in the longer term**: Overall the combination of pressures on Defra’s budget, impact on business and environmental quality is likely to make an incrementally changed version of the existing system untenable in the longer term, so more comprehensive reform is eventually inevitable. Acting sooner will enable a better-managed transition to a new approach.
Annexes – supporting research and analysis

- Implications for EU reform
- Stakeholder engagement method
- Duties and duty of care
- International reform experience case studies
- Rolling environmental assessment
- Local environmental planning
- Case study – framework for natural environment
Implications for EU reform
There is flexibility for UK legislative reform within the EU legislative framework

- Much of today’s environmental legislation in the UK has been implemented in response to EU legislation. In the UK we have typically reflected the issue-by-issue structure of EU law in our domestic legislation (e.g. on water, habitats and species, flood management). Other EU member states have followed a similar strategy, and as in the UK now find that their resulting system of domestic legislation has become overly fragmented and complex.

- The Make it Work Project is an initiative by The Netherlands, the UK and Germany that seeks to identify opportunities to systematically improve the quality of EU environmental law. In particular, it aims to establish a more coherent and consistent framework for the EU environmental acquis through developing guidance on the use of cross-cutting instruments and procedures in EU environmental directives and regulations.

- The Netherlands government is currently developing a new Environmental Planning Act that will provide a single framework for environmental planning law, including environmental permitting. The act is intended to replace multiple items of legislation and provide a consistent structure through which to implement the wide range of EU environment-related legislation. Environmental codes have been established in Sweden, Finland, France and Hungary. Germany has also drafted a single environmental code that draws together environmental legislation in a consistent structure, although this has not been implemented to date.

- The efforts of these member states show that member states can design more coherent national legislation within the EU framework.

- This section explores how each element of the future legislative framework proposed by the Smarter Legislation project may interact with EU legislation, outlining existing flexibilities and highlighting potential barriers that would need to be addressed for it to be implemented.
Environmental objectives from EU could be implemented through a framework act

Key features of proposed framework

Objectives expressed in terms of environmental outcomes to be achieved, easily understood by everyone. Stable and long-term to provide clear signal to business and society so they invest and organise around them. Should be in legislation to give the stability needed.

Feasibility within existing EU framework

- Environmental outcomes are spread across multiple pieces of EU legislation. In general, UK may pursue more (but not less) ambitious environmental objectives than required by EU law.
- Objectives of EU law must already be reflected in UK law. In some cases UK law does not restate objectives but instead refers to the EU law in which objectives are set (e.g. water quality). In other cases the requirements of EU law are written into UK law (e.g. protection of species).
- On the face of it bringing objectives together in a single UK act could be compatible with EU law, depending on how UK objectives are defined. UK objectives could be stated at a relatively high level, so that they are consistent with more specific EU requirements which would still apply.
- Netherlands draft Environmental Planning Act: Provides for the definition of ‘environmental values’ i.e. environmental quality or pressure benchmarks, and for the development of programmes to ensure they are achieved and maintained. Also includes ‘general duty of care’.

Objectives for EU reform

- As tranches of UK law are brought under the UK framework act, bring in any necessary EU reforms to remove inconsistencies between objectives in EU framework. Align any new EU legislation with the UK’s consistent set of objectives.

Questions requiring further exploration

- Are there inconsistencies in EU legislation that are revealed when their objectives are brought together?
- How should the UK framework best be designed to accommodate change in EU objectives?
A UK rolling environmental assessment could improve upon the existing EEA system

Key features of proposed framework

System must be built on robust data/indicators. Bring together all relevant indicators into one place. Be underpinned by a real-time, map-based assessment that allows people to understand their local environment and feed in information. Provide a formal report every 5 years. Rationalises existing monitoring systems.

Feasibility within existing EU framework

• The European Environment Agency (EEA) currently collates a range of indicator datasets across Europe, often drawing on data required by legislation. The EEA provides an annual indicator report and a 5-yearly State Of the Environment Report (SOER). In principle, a UK rolling environmental assessment would fit logically with the EEA approach, providing a UK ‘cut’ on the SOER. Using a common measurement system with other member states enables comparison of the impact of intervention, facilitating learning.

• However, the EEA system falls short of the vision of the Smarter Legislation framework:
  – While EEA indicators are currently reported online, underlying data is provided from multiple data sources which makes further analysis difficult.
  – It is not clear that the current indicator system provides comprehensive policy-relevant or business-relevant data, nor a comprehensive assessment of national or European natural capital, as recommended by the Natural Capital Committee.

Objectives for EU reform

• Ensure the EEA indicator set is improved to enable a cross-environment systematic analysis of drivers and impacts of changing environmental state, and incorporate learning from UK natural capital thinking, so that indicators can properly inform policy improvement. EEA is undertaking a review which UK should influence.

Questions requiring further exploration

• How and what to incorporate from non-governmental sources and to increase value from public, business and NGO participation?
UK 5 and 25 year plans would need to align with EU long-term strategies

Key features of proposed framework

25 year plan describes high level strategy to deliver objectives. 5 year plans describe immediate steps to achieve 25 year trajectory responding to State of the Environment report. Plans explain how different sectors/localities will contribute. Foresight plans to set out what’s likely to be needed in 5, 10, 15 years to give society clearer policy signal. Greater reliance on strategic interventions integrating objectives into all arms of government and into sector industrial strategies and roadmaps. Co-designed with industry to ensure they are achievable. Requirements for doing plans should be in legislation to provide long-term direction.

Feasibility within existing EU framework

• A UK environmental strategy and plan would be consistent with existing EU strategy and plan making.
• The degree to which member states are free to decide how to achieve environmental policy objectives and how much this is determined by EU policy varies between policy areas, depending on the design of associated regulation. E.g. EU MS chemicals policy is heavily constrained by REACH; MS vehicle emissions policy is heavily constrained by EU emissions standards. However in other areas of policy, e.g. industrial strategy, housing and infrastructure development, energy, MSs have many more choices about how to achieve objectives.
• Nevertheless, a single UK strategy could reflect these constraints while providing a clearer and more coherent forward plan for industry.
• Netherlands draft Environmental Planning Act: Provides for an overarching ‘environmental strategy’, ‘programmes’ of plans and measures to achieve environmental objectives, and rules for how administrative bodies operate.

Objectives for EU reform

• To improve the coordination and integration of EU planning cycles in line with the UK approach.

Questions requiring further exploration

• How could integration of planning cycles be improved (e.g. between Rural Development Programme plans and River Basin Management plans)?
A UK environmental committee could inform EU-level science advice

**Key features of proposed framework**

*Oversees and quality assures the environmental assessment. Provides independent advice to Government on setting and meeting environmental objectives. Conducts independent analysis into environmental science, economics and policy. Scrutinises valuation of benefits and whether proposals retain the integrity of legislative framework. Engages with a wide range of organisations and individuals to share evidence and analysis.*

**Feasibility within existing EU framework**

- Given that the UK currently has various science advisory bodies, and has successfully created the Committee on Climate Change, it should be feasible to create a wider UK Environmental Committee within EU law.

- Netherlands draft Environmental Planning Act: An environment committee as envisaged here is not addressed by the act, although it does make provision for an Environmental Impact Assessment Commission [p86 of explanatory notes]

- The 7th Environment Action Programme (EAP), which guides EU environmental policy to 2020, has identified “better information by improving the knowledge base” as a priority for the next 5 years. The European Commission is aiming to establish a ‘science advice mechanism’ by Autumn 2015. This approach aims to “Strengthen existing arrangements and bring together the supply and demand for independent scientific advice, with two main new features: A structured relationship with scientific advisory bodies in Member States (e.g. national academies) – to benefit from the wealth of knowledge and expertise, and Establishing a High Level Group of eminent scientists -to improve the interaction with scientific community, and ensure independence, scientific integrity, transparency”.

**Objectives for EU reform**

- Ensure new science advice mechanism meets its stated objectives

**Questions requiring further exploration**

- What would be the best UK and EU committee structures?
Consolidated UK local plans could fulfil EU policy-focused plan-making requirements

Key features of proposed framework

*Provides a single integrated local environmental plan rationalising up to 20 existing environmental plans. Plan explains the geographical area’s contribution to delivery of the national objectives, and sets local targets. Addresses all environmental objectives for the area, highlighting synergies and trade-offs. Provides a single open source of information about the local environment around which local stakeholders can agree action. Provides basis for local economic and development planning.*

Feasibility within existing EU framework

• The multiple plans that currently exist originate in multiple pieces of UK and EU legislation, each of which requires some kind of local plan to be developed. However, on the face of it each of these plans could be developed as part of a single local environmental plan and planning process for an area and still fulfil the legal requirement. With carefully designed information management it should be possible to extract the information from local plans necessary to construct the plans required by EU legislation.

• Developing single local environmental plans will require that multiple current bodies (e.g. LAs, EA, NE, LEPs) work together, or reform of organisational responsibilities and structures. Generally speaking EU legislation requires that regulation and planning is undertaken by a ‘competent authority’, but it is up to the member state to decide which organisation takes the role of competent authority for a given requirement, so it should be possible to reallocate the competent authority roles to any structures created.

• Netherlands draft Environmental Planning Act: Provides for a ‘physical environment plan’, containing the rules regarding the physical environment laid down by the municipal authorities. Consists of a balanced assignment of functions to sites in the entire municipal territory, as well as the rules that are necessary for the purpose of ensuring this. Development of this approach has been proving challenging, so UK should learn from this.

Objectives for EU reform

• Align EU plan output requirements with concept of a single plan

Questions requiring further exploration

• How will trade-offs be managed?
UK licence and permitting systems could be further streamlined within EU framework

Key features of proposed framework

Regulatory system should be transformed to align more closely with outcomes, deliver a step change in efficiency, stimulate investment and innovation and ensure a level playing field. Basic duty of care towards outcomes. ‘Reasonable steps’ explained by codes of practice, or reasonable alternative may be accepted by regulator. Outcome focussed permitting for higher impact activities. Specific rules where needed. Radically simplified and predictable system of effective enforcement.

Feasibility within existing EU framework

- Some EU law defines required outcomes but leaves MSs to decide how they are achieved (e.g. Water Framework Directive), whereas other EU law prescribes regulatory requirements and processes (e.g. Nitrates Directive, Industrial Emissions Directive). The extent to which regulation can be made outcome-based at the UK level will depend on how prescriptive EU legislation is about how outcomes are achieved.
- Where EU requirements are prescriptive these should in principle be consistent with achieving outcomes. However an alternative domestic approach to meeting outcomes where EU law is prescriptive has proved unacceptable in the past (e.g. Dutch attempt to fulfil Nitrates Directive using a tax rather than nitrate mass application restrictions).
- Nevertheless, in general there is flexibility in how member states implement licences, permits and enforcement, so improving consistency (e.g. in response times, transparency, penalties) in domestic legislation should be achievable.
- Netherlands draft Environmental Planning Act: Provides for ‘general rules’, ‘general government rules’, ‘project decisions’ and ‘environmental permits’ as the four instruments for regulation of businesses, through which a wide range of EU environmental law will be implemented. Also provides for ‘general duty of care’ for the environment.

Objectives for EU reform

- Migrate from prescriptive to outcome-based regulation as each area of legislation is reviewed.

Questions requiring further exploration

- Are there areas where outcome-based regulation is not appropriate e.g. due to nature of risk?
Stakeholder engagement method
Roundtables and workshops

- A first round of roundtables were held Mar-May 2014 focused on the chosen sectors represented by the External Panel.

- A roundtable with leading environmental policy academics was held with in Jul chaired by Prof Andy Gouldson.

- Workshops were also held with representatives of environmental professional bodies, and a cross-section of regulators, including a discussion focused on enforcement.

- Ideas were tested with a group of midstream oil representatives, in partnership with DECC, and with a broad spectrum of organisations involved in environmental management through a WIG event.

- Follow up roundtables to explore refined ideas were held with waste and resource management and residential development groups in late 2014. The natural environment theme was explored in more depth with a catchment management partnership.

- Prof Ian Boyd, Defra’s Chief Scientific Advisor, chaired three workshops with science advisors.

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<td>Residential development roundtable 1</td>
</tr>
<tr>
<td>09/07/14</td>
<td>Environmental professionals roundtable</td>
</tr>
<tr>
<td>09/07/14</td>
<td>Whitehall and Industry Group (WIG) workshop</td>
</tr>
<tr>
<td>14/07/14</td>
<td>Academic roundtable</td>
</tr>
<tr>
<td>30/07/14</td>
<td>Midstream Oil Taskforce workshop</td>
</tr>
<tr>
<td>12/08/14</td>
<td>Defra science advisors roundtable 1</td>
</tr>
<tr>
<td>08/09/14</td>
<td>Enforcement workshop</td>
</tr>
<tr>
<td>25/09/14</td>
<td>Residential development roundtable 2</td>
</tr>
<tr>
<td>31/10/14</td>
<td>Waste and resources roundtable 2</td>
</tr>
<tr>
<td>13/11/14</td>
<td>Catchment management roundtable</td>
</tr>
<tr>
<td>12/12/14</td>
<td>Regulators workshop</td>
</tr>
<tr>
<td>02/03/15</td>
<td>Defra science advisors roundtable 2</td>
</tr>
<tr>
<td>15/06/15</td>
<td>Defra science advisors roundtable 3</td>
</tr>
<tr>
<td>Annexes</td>
<td>Duties and duty of care</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Implications for EU reform</td>
<td></td>
</tr>
<tr>
<td>Outline benefits map</td>
<td></td>
</tr>
<tr>
<td>Stakeholder engagement method</td>
<td></td>
</tr>
</tbody>
</table>

**Duties and duty of care**
Duties

Duty: “A legal requirement to carry out or refrain from carrying out any act”

E.g. Duty to conserve biodiversity - Natural Environment and Rural Communities Act 2006, s 40
(1) Every public authority must, in exercising its functions, have regard,
so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.
(2) In complying with subsection (1), a Minister of the Crown, government department or the National Assembly for Wales must in particular have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992.
(3) Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

E.g. Operating a regulated facility or cause or knowingly permit a water discharge activity or groundwater activity - Environmental Permitting (England and Wales) Regulations 2010
12.—(1) A person must not, except under and to the extent authorised by an environmental permit—
(a) operate a regulated facility; or
(b) cause or knowingly permit a water discharge activity or groundwater activity.

E.g. Protection of birds - Wildlife and Countryside Act 1981 (as amended)
(1) Subject to the provisions of this Part, if any person intentionally—
(a) kills, injures or takes any wild bird;
[F1(aa)takes, damages or destroys the nest of a wild bird included in Schedule ZA1;]
(b) takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
(c) takes or destroys an egg of any wild bird,
he shall be guilty of an offence.
Duty of care: a special kind of duty - to take care to avoid harm

Duty of care: “A duty of care refers to the circumstances and relationships giving rise to an obligation upon a defendant to take proper care to avoid causing some form of foreseeable harm to the claimant in all the circumstances of the case in question.”
LexisNavigator

e.g. Duty of care as respects waste:
“The legal duty of any person who imports, produces, carries, keeps, treats or disposes of controlled waste to take all such measures as are reasonable in the circumstances to prevent that waste causing harm to the environment.”
Environmental Protection Act 1990, s 34
Environmental Permitting (England and Wales) Regulations 2010, SI 2010/675

e.g. Duty of care for health and safety:
“It shall be the duty of every employer to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all his employees.”
Health and Safety at Work etc. Act 1974, s 2
Duties of care: Earl et al.’s formulation for biodiversity – elements of legislation (to provoke discussion)*

**Objectives**
Specific objectives the legislation seeks to achieve. The key objective is the maintenance or improvement of biodiversity to a specific standard, as a result of taking reasonable steps to avoid foreseeable harm. Objectives described in only general terms, leaving detailed specification relevant to catchment or sub-catchment settings to be described elsewhere.

**Statutory duty of care**
All land managers have a duty to the community (that values biodiversity), to take reasonable steps to ensure that their management does not cause foreseeable harm to the biodiversity over which they have influence.

- **Land manager**
  Any person whose land management may directly influence biodiversity, either in the long or short-term. Could be a caveat specifying minimum land area.

- **Biodiversity**
  The variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems (UN Rio Convention).

- **Ecosystem**
  A dynamic complex of plant, animal and micro-organism communities and their non-living environment interacting as a functional unit (UN Rio Convention).

- **Administrative penalties for non-compliance**

- **Reasonable steps**
  Refers to the reasonable steps a reasonable person would take or not take, in adhering to community standards. A reasonable person is capable of reasoning, conducts themselves in accordance with community standards, and is influenced by the nature of the relationship between parties and the relevant personal characteristics of the defendant.

- **Foreseeable harm**
  Predictable harm, based on the best available knowledge and scientific information; it is not accidental harm.

- **The community**
  The community of interest – provide for open standing, allowing third parties, such as interested individuals, conservation groups, or industry groups to take action in response to a perceived breach of duty, and potentially providing them with a role as surrogate regulator.

- **Review processes**

- **Roles and responsibilities for monitoring and enforcement**

- **Community based committees**
  Responsibility for determining desired outcomes [at (sub)catchment level] would rest with committees of appropriately informed and reasonable people, comprising representatives with expertise and/or interest in biodiversity, drawn not only from the local community, but also more broadly from the community of interest.

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Duties of care: a possible formulation for water quality

Duty of Care for water quality

• Parties have a duty to ensure, so far as is reasonably practicable, their activities do not diminish the quality of water or the ecological and other services provided by water whether in rivers, streams, wetlands waterways or ground water bodies.

• Where an activity has an inherent impact or risk of impact on water quality, parties must ensure that they utilise approaches that are at least as good as the best available techniques not entailing excessive cost for that activity with due regard to the local nature of the environment.

• To the extent that parties undertake activities which have an inherent impact or risk of impact on water quality which are licenced by Government they must in addition meet the terms of that licence.

• Parties must take and give effect to adequate arrangements for the effective planning, organisation, control, monitoring and review of activities which have an impact or risk of impact upon water quality. Where appropriate these arrangements should be recorded.

• Parties should ensure that activities which could impact upon water quality are undertaken by competent persons with understanding of the planning, monitoring and control of these activities.

• Parties must ensure that 'suitable and sufficient' risk assessments are carried out to identify hazards, assess the probability of negatively impacting water quality and evaluate the effectiveness of control measures.

• So far as is reasonably practicable, impacts on water quality should be prevented by tackling risks at source, using engineering means in preference to systems of work, these only being acceptable where risks cannot be controlled by such other means.

• Adequate emergency arrangements must be in place under the control of 'competent persons'. These must include Accidental impacts reported to the appropriate enforcing authority and records kept. There must also be suitable procedures for employees to report risks and impacts to water quality.

• All Parties whose activities have an inherent impact or risk of impact on water quality must have specific environmental insurance to rectify the impact on the quality of water and on the ecological and other services provided by water.
What benefits could a Queensland-style duty offer in England?

Possible benefits:

• It clearly communicates that society/government wants environmental harm to be minimised, as far as is reasonable and practicable, providing a clearer goal for business planning than multiple objectives spread across multiple items of legislation.

• It motivates businesses to think about environmental impact of any activities they undertake, rather than just those that are controlled in legislation.

• It may plug gaps in existing legislation, if there are actions that people take that cause environmental harm but that are not currently controlled by legislation.

• It may allow regulation in some cases to be more flexible, if businesses only have to demonstrate that harm was reasonably managed, without prescribing how they do so (but see continued need for licenses and general binding rules).

Where businesses want greater clarity on what is considered “reasonable and practicable” they can refer to a recognised code of practice.

However:

• It is not clear that it would in itself reduce the number of specific rules in legislation. In Queensland, and to maintain existing protections in England:
  – General binding rules are still required
  – Authorisations/licenses are still required

• The duty and its implications may be more difficult to understand than specific rules. For example:
  – How are environmental values measured?
  – What happens if a firm simultaneously causes unauthorised harm, breaching the duty, and causes a greater value environmental benefit elsewhere on their property resulting in a net positive impact? Is this permissible?

• As it operates on the basis of creating liability for harm caused, it doesn’t in itself require that people take steps themselves to restore or enhance the environment (e.g. by creating new natural habitat on their property). Environmental improvement may occur, either at the individual business/landowner level or across the whole natural environment, because pressures are reduced.

• It could increase the number of businesses that either need to be licensed or to cease to operate, because some may currently be allowed by law to cause harm that would under the general duty be illegal.
International reform experience case studies
Draft Dutch Environmental Planning Act – 2014 onwards
Draft Dutch Environmental Planning Act – summary (as of June 2014)

Summary

• Legislative bill for a new Environmental Planning Act was submitted to Dutch parliament in June 2014.

• Act seeks to modernise, harmonise and simplify current rules on land use planning, environmental protection, nature conservation, construction of buildings, protection of cultural heritage, water management, urban and rural development, development of major public and private works and mining and earth removal and integrate these into one legal framework.

• Considered necessary because current legislation is outdated e.g. does not focus sufficiently on sustainable development, or take sufficient account of regional differences, solutions specific to particular projects, or importance of involving stakeholders early in project-related decision making. Initiators of activities are grappling with multiple laws with different procedures, planning processes and rules, competent authorities do not assess initiatives in conjunction, and integrated policy is not or is difficult to create.

Outcome focus

• Social objectives of act are (1) To achieve and maintain a safe and healthy physical environment and good environmental quality, and (2) To effectively manage, use and develop the physical environment in fulfilling [its] social roles.

• Uses ‘policy cycle’ model built into act to allow for review and revision of policy and regulation, intended to align to general EU approach.

• Act provides for ‘environmental values’ “A benchmark for the state or quality of the physical environment or ...permissible burden ... or by the concentration or deposition of substances in the physical environment ...expressed in measurable or calculable units or in other objective terms”. An administrative body is obliged to monitor such environmental values and, if necessary, establish a programme to ensure they are met and maintained.

• Includes a ‘general duty of care’ “An obligation for everyone to take sufficient care for the physical environment and, in so far as it can be reasonably expected, to prevent negative effects arising from their activities, or in so far as those effects cannot be prevented, to limit or remedy those effects as much as possible, or if that is also not possible, to refrain from those activities.”

• Defines ‘outcome-orientated regulation’ as “a stipulation that indicates the outcome that must be achieved, whereby it is up to the initiator to decide which measures it will use to achieve that outcome”. States that these should be used where possible instead of “means-orientated” regulations, with regulators able to assess compliance with achieving outcomes and avoiding the temptation to create more policy rules.

Integration

• Aims, over time, to integrate a wide set of items of legislation into a single act, and to integrate planning and permitting systems.
## Draft Dutch Environmental Planning Act – types of instruments (as of June 2014)

<table>
<thead>
<tr>
<th>Policy development</th>
<th>Promulgation of policy</th>
<th>General rules</th>
<th>Permission</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental strategy</strong> – a coherent strategic plan relating to the physical environment</td>
<td><strong>Environmental value</strong> – A benchmark for the state or quality of the physical environment or a part thereof, or the permissible burden caused by activities or by the concentration or deposition of substances in the physical environment of a part thereof, expressed in measurable or calculable units or in other objective terms (Article 2.9)</td>
<td><strong>Physical environment plan</strong> - A plan containing the rules regarding the physical environment laid down by the municipal authorities. This always consists of a balanced assignment of functions to sites in the entire municipal territory, as well as the rules that are necessary for the purpose of ensuring this (Articles 2.4 and 4.2).</td>
<td><strong>Environmental permit</strong> – The permission, on request, to perform one or more activities in the physical environment (Section 5.1). An initiator can use to obtain permission for the entirety of the activities that it wishes to carry out, via an application to a single office</td>
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<tr>
<td><strong>Programme</strong> – a package of draft plans and measures that serve to meet environmental values or targets in the physical environment and to continue to meet them</td>
<td><strong>Instructional rule</strong> - A rule relating to the performance of a duty or exercising of a power by an administrative body (Articles 2.22 and 2.24).</td>
<td><strong>General rules</strong> (contained in the water board regulation and in the environmental regulation) - Rules that are applicable to everyone (generally binding regulations that do not exclusively apply to administrative bodies).</td>
<td><strong>Project decision</strong> – A decision made by the State, a province or a water board in relation to carrying out a project and the operation or maintenance thereof (Article 5.42). A generic arrangement for decision-making in relation to projects with a public interest according to the ‘faster and better’ approach</td>
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<tr>
<td><strong>Instruction</strong> - An instruction to another administrative body regarding performing a duty or exercising a power if that is necessary in terms of an even distribution of functions at sites or in order to achieve coherent and effective water management (Articles 2.33 and 2.34).</td>
<td><strong>Assessment rule for a permit application</strong> - A rule relating to granting or refusing to grant an environmental permit, including rules regarding the justification of the decision to grant or refuse a permit (Article 5.17).</td>
<td><strong>General government regulations</strong> - Regulations that are applicable to everyone by means of an order in council or ministerial order.</td>
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</tbody>
</table>
# Draft Dutch Environmental Planning Act – structure (as of Jun 2014)

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>General provisions</td>
</tr>
<tr>
<td>2</td>
<td>Duties and powers of administrative bodies</td>
</tr>
<tr>
<td>3</td>
<td>Environmental strategies and programmes</td>
</tr>
<tr>
<td>4</td>
<td>General rules regarding activities in the physical environment</td>
</tr>
<tr>
<td>5</td>
<td>The environmental permit and the project decision</td>
</tr>
<tr>
<td>6 - 9</td>
<td>Reserved for future sections, such as those in the area of non area-specific environmental policy (substances, products, emission trading) and stipulations governing damage.</td>
</tr>
<tr>
<td>10</td>
<td>Obligations to tolerate</td>
</tr>
<tr>
<td>11</td>
<td>Reserved for future sections (as per 6-9)</td>
</tr>
<tr>
<td>12</td>
<td>Land development</td>
</tr>
<tr>
<td>13</td>
<td>Financial stipulations</td>
</tr>
<tr>
<td>14</td>
<td>Reserved for future sections (as per 6-9)</td>
</tr>
<tr>
<td>15</td>
<td>Reserved for future sections (as per 6-9)</td>
</tr>
<tr>
<td>16</td>
<td>Procedures</td>
</tr>
<tr>
<td>17</td>
<td>Advisory bodies and advisors</td>
</tr>
<tr>
<td>18</td>
<td>Enforcement and implementation</td>
</tr>
<tr>
<td>19</td>
<td>Powers and obligations of administrative bodies in exceptional circumstances</td>
</tr>
<tr>
<td>20</td>
<td>Monitoring and information</td>
</tr>
<tr>
<td>21</td>
<td>Reserved for future sections (as per 6-9)</td>
</tr>
<tr>
<td>22</td>
<td>Reserved for transitional law</td>
</tr>
<tr>
<td>23</td>
<td>Miscellaneous and final stipulations</td>
</tr>
<tr>
<td>Annexes</td>
<td>Stakeholder engagement method</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>------------------------------</td>
</tr>
<tr>
<td>Implications for EU reform</td>
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<tr>
<td>Outline benefits map</td>
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**Estonia General Part of the Environmental Code 2011**
Estonia General Part of the Environmental Code Act 2011 - summary

Summary

- Estonia has been codifying its environmental law since 2007. First result of this process was adoption of General Part of the Environmental Code in 2011.
- Objectives of codification include (1) to eliminate discrepancies in existing fragmented body of law, especially with regard to terms and by proving common conceptual foundations; (2) decreasing internal and external over-regulation, unifying and coordinating procedures and reducing costs for users of the environment and administrative bodies and; (3) to fill gaps in existing law e.g. for environmental rights, an integrated permit procedure, basic obligations of operators.
- The General Part of the Environmental Code lays down the principal concepts of environmental law, the principles of environmental protection, the obligations of everyone, obligations of operators, environmental rights, and a new and integrated environmental permit procedure.
- The General Part of the Environmental Code will be accompanied by a Special Part. The General Part will only become effective alongside the Special Part. Developing the Special Part will be expected to lead to changes being made to the General Part.
- Clarity and better understanding of the legal order are enabled by the adoption of the following new concepts: environmental nuisance, significant environmental nuisance, environmental hazard, and environmental risk. A particularly innovative element in Estonian environmental law is the differentiation between the prevention principle and the precautionary principle, which requires a different legal reaction to an obvious environmental hazard and uncertain environmental risks.

Outcome focus

- The purpose of the act (Sec 1) is “to ensure: 1) the reduction of environmental nuisances to the maximum extent possible in order to protect the environment, human health, well-being, property and cultural heritage; 2) the promotion of sustainable development in order to secure an environment that meets the human health and well-being needs of the present generation and future generations; 3) the preservation and protection of natural diversity; 4) the good state of the environment; 5) the prevention of damage to the environment and the remedying of damage caused to the environment.”
- “‘Environmental nuisance’ means a human-induced direct or indirect adverse impact on the environment, including impact on human health, well-being, property or cultural heritage via the environment. ‘Environmental nuisance’ also means such an adverse impact on the environment, which does not exceed a numerical limit or that has not been regulated by a numerical limit.” (Sec 3)
- Establishes a general ‘duty of care’: (S14) “Duty of care: Everyone must, to a reasonable extent, take measures to reduce the environmental nuisance caused by their act or omission.” + (S15) “Duty to acquire knowledge for prevention of environmental threat: Before commencing an activity that will cause an environmental threat, everyone must, to a reasonable extent, acquire knowledge that, given the type and scope of the activity, is necessary for preventing the environmental threat.”

Integration

- The General Part of the Environmental Code Act seeks to provide a guiding framework for the gradual codification of Estonia’s law, including procedural elements such as permitting. Also, S9 lays down a ‘principle of integration’: “Considerations ensuring a high level protection of the environment must be taken into account in guiding the development of all fields of life in order to ensure sustainable development.”
### Chapter 1 General Provisions

**Division 1 Purpose and Scope of Application of Act**
- § 1. Purpose of Act
- § 2. Application of Administrative Procedure Act

**Division 2 Definitions**
- § 3. Environmental nuisance
- § 4. Environmental risk
- § 5. Environmental threat
- § 6. Installation and operator
- § 7. Emission, emission limit value, limit value of quality of environment, pollution and contamination

### Chapter 2 Principles and Main Duties of Environmental Protection

**Division 1 Principles of Environmental Protection**
- § 8. Principle of high-level and integral protection of environment
- § 9. Principle of integration
- § 10. Principle of prevention
- § 11. Precautionary principle
- § 12. Bearing costs related to use of environment
- § 13. Principle of economical use of natural resources

**Division 2 Main Duties of Environmental Protection**
- § 14. Duty of care
- § 15. Duty to acquire knowledge for prevention of environmental threat

### Chapter 3 Duties of Operator

- § 16. Duty to prevent environmental threat and take precautionary measures
- § 17. Duty to use raw material, natural resources and energy economically
- § 18. Choice of location of installation
- § 19. Environmental protection training in installation
- § 20. Notification obligation
- § 21. Environmental protection requirements upon termination of operations of installation
- § 22. Performance of duties

### Chapter 4 Environmental Rights

**Division 1 Right to Environment that Meets Health and Well-being Needs and Environmental Procedural Rights**
- § 23. Right to environment that meets health and well-being needs
- § 24. Right to request environmental information
- § 25. Right to receive environmental information upon emergence of environmental threat
- § 26. Gathering, maintenance and disclosure of environmental information
- § 27. Publication of overview of environmental information and access to information on website
- § 28. Right to participate in making decision of significant environmental impact
- § 29. Right to participate in drafting instruments of general application which have significant impact on environment
- § 30. Access to justice in environmental matters
- § 31. Non-governmental environmental organisation

**Division 2 Right to Use Plot of Land and Water Body Belonging to another Person**
- § 32. Staying on plot of land belonging to another person
- § 33. Using road and path located on plot of land belonging to another person
- § 34. Picking berries, mushrooms, nuts, fallen braches and other similar natural products on plot of land belonging to another person
- § 35. Brief camping and other more permanent stay on plot of land belonging to another person
- § 36. Prohibition to make fire on plot of land belonging to another person
- § 37. Public use of water body
- § 38. Shore or bank path
- § 39. Closure of shore or bank path and enabling getting around it

### Chapter 5 Permit Proceedings

- § 40. Environmental protection permits
- § 41. Environmental permit
- § 42. Application for environmental permit
- § 43. Opinion of local authority
- § 44. Open proceedings
- § 45. Involvement of parties to proceedings when open proceedings are not carried out
- § 46. Involvement of persons likely to be affected by proceedings of granting of environmental permit in event of open proceedings
- § 47. Involvement of public about proceedings of granting of environmental permit in event of open proceedings
- § 48. Public display of application for environmental permit and administrative decision to be made thereon in event of open proceedings
- § 49. Time limit of deciding whether to grant environmental permit
- § 50. Joint review of applications for environmental permit
- § 51. Identification of circumstance of significance for granting environmental permit before granting environmental permit
- § 52. Refusal to grant environmental permit
- § 53. Substantiation of environmental permit
- § 54. Determination of emission
- § 55. Granting of environmental permit whereby detailed plan is mandatory
- § 56. Partial granting of environmental permit
- § 57. Granting of environmental permit before final determination of conditions of permit
- § 58. Announcement of environmental permit
- § 59. Amendment of environmental permit
- § 60. Change of data of holder of environmental permit
- § 61. Suspension of environmental permit
- § 62. Revocation of environmental permit
- § 63. Entry into force of Act

### Chapter 6 Implementing Provisions

- § 64. Smarter Environmental Legislation
- § 65. Reform case studies
- § 66. Environmental assessment
- § 67. Case study: fwk for natural environment
- § 68. Local environmental planning
- § 69. Stakeholder engagement method
- § 70. Outline benefits map
- § 71. Implications for EU reform
- § 72. Annexes
New Zealand Resource Management Act 1991
New Zealand Resource Management Act 1991 - summary

Summary


- Three tiered management system – national, regional and district. National government responsible for national environmental standards, national policy statements, and New Zealand coastal policy statements. Regional councils responsible for regional policy statements and regional plans. Territorial authorities responsible for district plans.


Outcome focus

- The purpose of the act is (P2 Sec 5) “to promote the sustainable management of natural and physical resources”.

- Section 6 requires that “in achieving the purpose of the act, all persons exercising functions and powers under it...shall recognise and provide for the following matters of national importance: (a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development; (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development; (c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna; (d) the maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers; (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga; (f) the protection of historic heritage from inappropriate subdivision, use, and development; (g) the protection of protected customary rights.”

- National policy statements state objectives and policies for matters of national significance. National environmental standards (NES) are standards for maintaining a clean, healthy environment.

Integration

- Purpose of act is to provide integrated scheme for resource management.

- 2007 OECD NZ Environmental Performance Review noted that the RMA devolved most policy implementation responsibilities to regional and territorial authorities. Implementation of the RMA and the parallel major reform of local government took years, with full effects only being felt in the late 1990s. The OECD called for NZ to “(i) strengthen national policy guidance in the form of policy statements and national environmental standards, in the interest of promoting a level national playing field and improving regulatory efficiency and (ii) further integrate environmental concerns into economic and sectoral decisions, particularly by using economic instruments to internalise environmental costs of economic activities; and (iii) further develop international environmental cooperation.”
# New Zealand Resource Management Act 1991 - Structure

<table>
<thead>
<tr>
<th>P1</th>
<th>Interpretation and application</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>Purpose and principles</td>
</tr>
<tr>
<td>P3</td>
<td>Duties and restrictions under this Act</td>
</tr>
<tr>
<td>P4</td>
<td>Functions, powers, and duties of central and local government</td>
</tr>
<tr>
<td>P4A</td>
<td>Environmental Protection Authority</td>
</tr>
<tr>
<td>P5</td>
<td>Standards, policy statements, and plans</td>
</tr>
<tr>
<td>P6</td>
<td>Resource consents</td>
</tr>
<tr>
<td>P6AA</td>
<td>Proposals of national significance</td>
</tr>
<tr>
<td>P6A</td>
<td>Aquaculture moratorium</td>
</tr>
<tr>
<td>P7</td>
<td>Coastal tendering</td>
</tr>
<tr>
<td>P7A</td>
<td>Occupation of common marine and coastal area</td>
</tr>
<tr>
<td>P8</td>
<td>Designations and heritage orders</td>
</tr>
<tr>
<td>P9</td>
<td>Water conservation orders</td>
</tr>
<tr>
<td>P10</td>
<td>Subdivision and reclamations</td>
</tr>
<tr>
<td>P11</td>
<td>Environment Court</td>
</tr>
<tr>
<td>P11A</td>
<td>Act not to be used to oppose trade competitors</td>
</tr>
<tr>
<td>P12</td>
<td>Declarations, enforcement, and ancillary powers</td>
</tr>
<tr>
<td>P13</td>
<td>Hazards Control Commission [repealed]</td>
</tr>
<tr>
<td>P14</td>
<td>Miscellaneous provisions</td>
</tr>
<tr>
<td>P15</td>
<td>Transitional provisions</td>
</tr>
<tr>
<td>P16</td>
<td>Transitional provisions for amendments made on or after commencement of Resource Management Amendment Act 2013</td>
</tr>
</tbody>
</table>

## P3 - Duties and restrictions under this Act
- Land
- Coastal marine area
- River and lake beds
- Water
- Discharges
- Noise
- Adverse effects
- Recognised customary activities [repealed]
- Emergencies
- Effect of certain changes to plans [repealed]
- Certain existing lawful activities allowed
- Miscellaneous provisions

## P4 - Functions, powers, and duties of central and local government
- Functions, powers, and duties of Ministers
- Functions, powers, and duties of local authorities
- Duties of local authorities and applicants
- Powers and duties of local authorities and other public authorities
- Waivers and extension of time limits
- Enforcement officers
- Powers and duties in relation to hearings
- Reports

## P7 - Coastal tendering
- Occupation of common marine and coastal area

## P9 - Water conservation orders

## P10 - Subdivision and reclamations

## P11 - Environment Court
- P11A - Act not to be used to oppose trade competitors

## P12 - Declarations, enforcement, and ancillary powers

## P13 - Hazards Control Commission [repealed]

## P14 - Miscellaneous provisions

### Annexes
- Implications for EU reform
- Outline benefits map
- Stakeholder engagement method
- Duties and duty of care
- Reform case studies
- Environmental assessment
- Local environmental planning
- Case study: fwk for natural environment

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**S1** - Preparation, change, and review of policy statements and plans

**S1AA** - Incorporation of documents by reference in national environmental standards, national policy statements, and New Zealand coastal policy statements

**S1A** - Preparation and change of regional coastal plans providing for aquaculture activities [repealed]

**S2** - Matters that may be provided for in policy statements and plans [repealed]

**S3** - Water quality classes

**S4** - Information required in application for resource consent

**S5** - Provisions applying in respect of the Hazards Control Commission [repealed]

**S6** - Enactments repealed

**S7** - Regulations and orders revoked

**S8** - Enactments amended

**S9** - Special Acts under which local authorities and other public bodies exercise functions, powers, and duties

**S10** - Requirements for instruments creating esplanade strips and access strips

**S11** - Acts that include statutory acknowledgements

**S12** - Transitional provisions for amendments made on or after commencement of Resource Management Amendment Act 2013 + other acts

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**Smarter Environmental Legislation**

79
<table>
<thead>
<tr>
<th>Annexes</th>
<th>Stakeholder engagement method</th>
<th>Duties and duty of care</th>
<th>Reform case studies</th>
<th>Environmental assessment</th>
<th>Local environmental planning</th>
<th>Case study: fwk for natural environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implications for EU reform</td>
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<td>Outline benefits map</td>
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</table>

**German Environmental Code (not implemented)**
German environmental code - summary

Summary*

• Between autumn 1992 and summer 1997 a draft Environmental Code (Umweltgesetzbuch) was developed by an independent expert commission Federal Ministry for the Environment, Nature Conservation and Nuclear Safety of the Federal Republic of Germany. This in turn was informed by previous drafts provided by “Professors Commissions” in 1990 and 1994. An initial attempt to introduce the Code foundered in 1999 due to constitutional concerns.

• A further attempt to introduce the Code was made in 2009, following constitutional reform in 2006. The 2009 Code was intended to be a moderate reform of environmental law, maintaining existing environmental standards, incorporating existing and proven regulatory concepts. The goals of the code included standardisation and harmonisation, simplification of authorisation procedures and structural continuity in environmental legislation.

• Despite initial support, the 2009 Code encountered considerable opposition and debate in parliament and ultimately the initiative was abandoned by the federal government. Some sub-parts of the proposed Code were passed as individual laws in 2009.

Outcome focus

• The Code included the concept of a “duty of care” for businesses.

Integration

• Standardisation and harmonisation: the Code aimed to revise, harmonise and simplify environmental law, eliminating unjustified regulatory differences and substantially reducing the variety and number of provisions.

• Simplification of authorisation procedures: the Code was to introduce a rationalised authorisation process with one licensing authority, one approval procedure, one uniform evaluation and decision-making process and one approval decision. Expected to reduce administrative costs by 10%.

• Structural continuity: Code aimed to create a stable and durable legislative framework that would be comprehensible in the long term and improve orientation, planning and legal certainty.

*For further detail see Gabriel, S. (2009) The failure of the Environmental Code, Environmental Policy and Law, 39/3
# German environmental code - structure

## 1. General Provisions
- 1.1 Purpose of the Code, Definitions
- 1.2 Principles of Environmental Protection
- 1.3.1 Statutory Ordinances
- 1.3.2 Administrative Rules
- 1.3.3 Technical Rules
- 1.4 Targets, Voluntary Undertakings, Covenants, Byelaws
- 1.5 Participation by Associations
- 1.6 Environmental Obligations of Public Administration
- 1.7 Organisation and Competences of Public Authorities
- 1.7.1 Organisation and Competences of Public Authorities
- 1.7.2 Advisory Commissions
- 1.8 Administrative Offences

## 2. Planning
- 2.1 General Provisions
- 2.2 Basic Environmental Planning
- 2.3 Environmental Impact Assessment in Plans and Programmes

## 3. Projects
- 3.1 General Provisions
- 3.2 Non-discretionary Project Authorisation
- 3.3 Discretionary project authorisation
- 3.4 Simple Project Authorisation
- 3.5 EIA in the case of Prior Procedures and Other Projects
- 3.6 Common Provisions and Administrative Offences

## 4. Products
- 4.1 General Provisions
- 4.2 Duties of Manufacturers, Marketers and Users
- 4.3 Environmental Seal
- 4.4 Administrative Offences

## 5. Intervention Measures and Monitoring
- 5.1.1 Activities Requiring Authorisation
- 5.1.2 Activities Not Requiring Authorisation
- 5.1.3 Common Provisions
- 5.2.1 Monitoring – General Provisions
- 5.2.2 Administrative Monitoring
- 5.2.3 Self-monitoring
- 5.2.4 Monitoring – Common Provisions
- 5.3 Administrative Offences

## 6. Environmental Protection with Companies, Environmental Liability and Other Economic Instruments
- 6.1.1 Environmental Protection within Companies – General Provisions
- 6.1.2 Company Organisation and Environmental Protection Director
- 6.1.3 Environmental Officer
- 6.1.4 Eco-audit
- 6.1.5 Environmental Information within Companies
- 6.2.1 Liability for Behaviour in Breach of the Duty of Care
- 6.2.2 Strict Liability
- 6.2.3 Common Provisions
- 6.2.4 Environmental Subsidies
- 6.2.5 Offsetting, Preferential Treatment, Joint Use
- 6.6 Administrative Offences

## 7. Environmental Information
- 7.1 Governmental Environmental Information
- 7.2 Access to Environmental Information
- 7.3 Confidentiality
- 7.4 Commissions on Access to Information

## 8. Transboundary Environmental Protection
- 8.1 General Provisions
- 8.2 Procedure in cases of Transboundary Environmental Impact
- 8.3 Implementation of Projects outside the Territorial Scope of Code
- 8.4 Imports and Exports of Products
- 8.5 Administrative Offences

## 9. Nature Conservation, Landscape Maintenance and Forest Conservation
- 9.1 General Provisions of Nature Conservation and Landscape Management
- 9.2.1 General Protection of Ecosystems – Nature Maintenance Plans
- 9.2.2 Encroachment on Nature and Landscape
- 9.2.3 Management
- 9.3.1 Protection of Biotopes and Special Areas – Biotope Protection
- 9.3.2 Protection for Special Areas
- 9.3.3 Protected Areas of European Significance
- 9.4.2 Conservation Provisions
- 9.4.3 Supplementary Provisions
- 9.5.1 Forest Conservation – General Provisions
- 9.5.2 Forest Preservation
- 9.5.3 Specially Protected Forest
- 9.5.4 Common Provisions
- 9.6 Expropriation, Indemnification and Compensation for Hardship
- 9.7 Common Provisions

## 10. Soil Conservation
- 10.1 General Provisions
- 10.2 Agricultural and Silvicultural Land Use
- 10.3 Soil Quality Monitoring and Avoidance of Soil Impairment
- 10.5 Soil Remediation and Reclamation
- 10.6 Administrative Offences

## 11. Water Conservation
- 11.1 General Provisions
- 11.2 Authorisation
- 11.3.1 Surface Waters – Management
- 11.3.2 Authorisation-Free Uses
- 11.3.3 Development, Maintenance, Flood Protection
- 11.4.1 Coastal Waters
- 11.4.2 Introducing and Discharging Waste into the High Seas and into Coastal Waters
- 11.5 Ground Water
- 11.6 Area-Specific Water Conservation
- 11.7 Waste Water Disposal
- 11.8 Installations for Handling Substances Harmful to Water and Soil
- 11.9 Monitoring and Environmental Officer
- 11.10.1 Waste Water Charge
- 11.10.2 Charge for Groundwater Abstraction
- 11.11 Common Provisions

## 12. Immission Control and Energy Supply
- 12.1 General Provisions on Immission Control
- 12.1.1 Immission Control Relating to Installations
- 12.1.2 Construction and Operation of Installations Not Requiring Authorisation
- 12.1.3 Monitoring of Installations
- 12.1.4 Advisory Commissions
- 12.1.5 Immission Control Relating to Traffic – Properties and Operation of Vehicles
- 12.1.6 Traffic Infrastructure Projects, Traffic Charges
- 12.1.7 Immission Control relating to Areas
- 12.1.9 Preferential Arrangements for Environmentally Sound Generation of Electricity
- 12.1.10 Saving Energy
- 12.1.11 Administrative Offences

## 13. Nuclear Energy and Radiological Protection
- 13.2 Authorisation and Monitoring – Authorisation of Installations
- 13.3.1.2 Other Authorisations
- 13.3.2 Waste Management
- 13.3.4 Monitoring and Intervention Measures
- 13.3.5 Common Provisions
- 13.3.6 Radiological Protection – Functions and Basic Duties
- 13.3.7 Protective Measures Within Companies and Company Organisations
- 13.3.8 Administrative Observation of Radioactivity, Radiological Protection Register
- 13.3.9 Statutory Ordinances and Administrative Measures
- 13.3.10 Delegated Administration
- 13.3.11 Liability and Financial Cover – General Provisions
- 13.3.12 Liability
- 13.3.13 Financial Cover
- 13.3.14 Administrative Offences

## 14. Traffic Infrastructure Projects and Utility Lines
- 14.2.1 Planning of Supra-regional Traffic Infrastructure Projects
- 14.2.2 Construction and Operation of Utility Lines
- 14.2.3 Common Provisions

## 15. Genetic Engineering
- 15.1 General Provisions on Genetic Engineering
- 15.2 Genetic Engineering Operations in Closed Systems
- 15.3 Release of Genetically Modified Organisms
- 15.4 Marketing of Genetically Modified Products
- 15.5 Requirements relating to Other Biotechnology
- 15.6 Common Provisions

## 16. Dangerous Substances
- 16.1 General Provisions
- 16.2 Registration of New Substances
- 16.3 Classification, Packaging and Labelling of Dangerous Substances, Preparations and Products
- 16.4 Duty to Inform
- 16.5 Protection of Employees
- 16.6 Good Laboratory Practice
- 16.7 Procedures and Organisations
- 16.8.2 PPP – Approval of Plant Protection Agents
- 16.8.3 PPP – Marketing of Plant Protection Agents
- 16.8.4 Use of Plant Protection Agents
- 16.8.5 Plant Protection Appliances
- 16.8.6 Plant Resistance Improvers; Active Ingredients
- 16.8.7 Other Plant Protection Measures
- 16.8.8 Compensation
- 16.8.9 Common Provisions
- 16.9.1 Biocides – General Provisions
- 16.9.2 Approval of Biocides
- 16.9.3 Marketing of Biocides
- 16.9.4 Use of Biocides; Appliances for Applying Biocides
- 16.9.5 Common Provisions
- 16.10.3 Detergents and Cleaners – General Provisions
- 16.10.2 Marketing of Detergents and Cleaners
- 16.11.1 Fertilisers – General Provisions
- 16.11.2 Marketing of Fertilisers
- 16.11.3 Compensation Fund
- 16.11.4 Closing Provisions
- 16.12.2 Requirements of the Carriage of Dangerous Goods
- 16.12.3 Environmental Officer
- 16.12.4 Competence, Safety Measures, Monitoring, Costs
- 16.13 Administrative Offences

## 17. Waste
- 17.1 General Provisions
- 17.2.1 Duties – Producers and Processors of Waste
- 17.2.2 Duties – Waste Managers
- 17.3 Organisation and Planning of Waste Management
- 17.4 Authorisation and Closure of Landfill Sites
- 17.5 Monitoring and Environmental Officer
- 17.6.1 Shipments – Authorisations of Carriers, Dealing and Brokering
- 17.6.2 Shipments – Transboundary Shipment of Waste
- 17.7 Waste Charge
- 17.8 Common Provisions
<table>
<thead>
<tr>
<th>Annexes</th>
<th>Outline benefits map</th>
<th>Stakeholder engagement method</th>
<th>Duties and duty of care</th>
<th>Reform case studies</th>
<th>Environmental assessment</th>
<th>Local environmental planning</th>
<th>Case study: fwk for natural environment</th>
</tr>
</thead>
</table>

**EU Water Framework Directive 2000**
EU Water Framework Directive 2000/60/EC - summary

Summary
• In the mid-1990s a widespread consensus emerged in the EU that, while considerable progress had been made in tackling individual issues, current water policy was fragmented, in terms both of objectives and of means. All parties agreed on the need for a single piece of framework legislation to resolve these problems, which is provided by the EU Water Framework Directive.
• Expanded the scope of water protection to all waters, surface waters and groundwater.
• Requires that “good status” for all waters is achieved by a set deadline.
• Requires water management based on river basins.
• Formalises the “combined approach” of controls on sources and requiring quality standards to be achieved in the environment. Where existing measures on the source side are not achieving required quality objectives, additional measures have to be put in place.
• Requires that prices charged to water consumers reflect the true costs of water use, to incentivise sustainable use.
• Gets the citizen involved more closely, by requiring information provision and consultation in the development of river basin management plans. This is intended to help balance the interests of groups affected, and to enhance the role of citizens in ensuring agreed measures are enforced.
• Streamlines (some) legislation, replacing seven “first wave” directives.
• http://ec.europa.eu/environment/water/water-framework/info/intro_en.htm

Outcome focus
• Role of duty of care: None identified.
• How outcomes are specified: Article 4 requires that Member States shall implement the necessary measures to prevent deterioration and protect, enhance and restore surface waters and groundwaters to achieve “good status” within 15 years, subject to various caveats including feasibility and proportionality of costs. The meaning of “good status” is defined in Annex 5 and includes definitions of surface water ecological and chemical status, and groundwater quantitative and chemical status.
• How people are motivated to achieve objectives: Article 10 requires that Member states shall ensure discharges are controlled through other water-related pieces of EU regulation including emissions controls based on best available techniques, or emission limit values, or for diffuse impacts controls including best environmental practices, as set out in: Integrated Pollution Prevention and Control Directive, Urban Waste Water Treatment Directive, Nitrates Directive and other items of legislation.
• Tracking performance and taking corrective action: Article 3 requires that Member states shall identify river basin districts and assign a competent authority for the application of the rules of this Directive. Member states shall ensure requirements of the Directive to achieve environmental objectives are coordinated for river basin districts, in particular all programmes of measures. Article 5 requires that Member states shall undertake an analysis of characteristics, a review of human impact on status of surface waters and on groundwater, and an economic analysis of water use, for each river basin district, and review every 6 years. Article 8 requires that Member states shall establish water status monitoring programmes for each river basin district. Article 11 requires that Member states shall establish for each river basin district a programme of measures taking account of results of analysis under Article 5 to achieve the objectives established under Article 4.
• Size of role of government: The Directive introduces the requirement for river basin management plans to be produced, for monitoring to take place, for programmes of measures for river basins to be coordinated and for a competent authority to be responsible for ensuring rules are applied. As such the additional government effort required by the Directive appears to lie primarily in coordination of existing activity. Measures to be applied are defined by other items of EU legislation, which in turn will have their own implications for the size of the role of government.

Integration
• The European Commission introduced the Directive to address the fragmentation of existing water policy, in terms of objectives and means of achieving them. It provides overarching targets for surface water and groundwater status, integrating objectives, and requires that a coordinated programme of measures is put in place for each river basin, integrating means at the level of local implementation.
• The Directive rationalised water legislation by replacing seven “first wave” directives. Other elements of the existing legislative system on which the Directive relies to deliver its objectives remain in place, including Integrated Pollution Prevention and Control/Industrial Emissions Directive the Urban Wastewater Treatment Directive and the Nitrates Directive.
• http://ec.europa.eu/environment/water/water-framework/info/intro_en.htm

Smarter Environmental Legislation
## EU Water Framework Directive 2000/60/EC - structure

<table>
<thead>
<tr>
<th>Annexes</th>
<th>Implications for EU reform</th>
<th>Outline benefits map</th>
<th>Stakeholder engagement method</th>
<th>Duties and duty of care</th>
<th>Reform case studies</th>
<th>Environmental assessment</th>
<th>Local environmental planning</th>
<th>Case study: fwk for natural environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preamble</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – Purpose</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2 – Definitions</td>
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<tr>
<td>3 – Coordination of administrative arrangement within river basin districts</td>
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<td>4 – Environmental objectives</td>
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<tr>
<td>5 – Characteristics of the river basin district, review of the environmental impact of human activity and economic analysis of water use</td>
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<td>6 – Register of protected areas</td>
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<td>7 – Waters used for the abstraction of drinking water</td>
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<td>8 – Monitoring of surface water status, groundwater status and protected areas</td>
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<td>9 – Recovery of costs of water services</td>
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<tr>
<td>10 – The combined approach for point and diffuse sources</td>
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<tr>
<td>11 – Programme of measures</td>
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</tr>
<tr>
<td>12 – Issues which cannot be dealt with at Member State level</td>
<td></td>
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<td></td>
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<tr>
<td>13 – River basin management plans</td>
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<td></td>
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<tr>
<td>14 – Public information and consultation</td>
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<tr>
<td>15 – Reporting</td>
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<tr>
<td>16 – Strategies against pollution of water</td>
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<tr>
<td>17 – Strategies to prevent and control pollution of groundwater</td>
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<td></td>
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<tr>
<td>18 – Commission report</td>
<td></td>
<td></td>
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<tr>
<td>19 – Plans for future Community measures</td>
<td></td>
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<td>20 – Technical adaptations to the Directive</td>
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<tr>
<td>21 – Committee procedure</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>22 – Repeals and transitional provisions</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>23 – Penalties</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>24 – Implementation</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>25 – Entry into force</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>26 – Addressees</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**Annexes**

- Annex I – Information required for the list of competent authorities
- Annex II – Characterisation - 1 Surface waters, 2 Groundwaters
- Annex III – Economic analysis
- Annex IV – Protected areas
- Annex V – Status, monitoring etc - 1 Surface water, 2 Groundwater
- Annex VI – List of measures to be included within the programme of measures
- Annex VII – River basin management plans
- Annex VIII – Indicative list of the main pollutants
- Annex IX – Emission limit values and environmental quality standards
- Annex X – List of priority substances in the field of water policy
- Annex XI – Ecoregions for rivers and lakes, and for transitional waters and coastal waters
<table>
<thead>
<tr>
<th>Annexes</th>
<th>Outline benefits map</th>
<th>Stakeholder engagement method</th>
<th>Duties and duty of care</th>
<th>Reform case studies</th>
<th>Environmental assessment</th>
<th>Local environmental planning</th>
<th>Case study: fwk for natural environment</th>
</tr>
</thead>
</table>

**Swedish Environmental Code 1999**
Sweden’s environmental policy system

- Overarching generational goal: “The overall goal of environmental policy is to hand over to the next generation a society in which the major environmental problems have been solved, without increasing environmental and health problems outside Sweden’s borders.”
- 16 environmental quality objectives describe the quality of the environment Sweden wishes to achieve by 2020. Government adopts ‘milestone targets’ in priority areas setting out changes in society needed.
- Cycle of intervention and evaluation, with annual follow-up on environmental quality objectives.
- An All-Party Committee proposes strategies, policy instruments and measures to achieve environmental objectives.
- Different government agencies are responsible for implementing the objectives and monitoring progress. County administrative boards and the Swedish Forest Agency are responsible for regional efforts in pursuit of the objectives, and local authorities also engage with these goals. A special body exists to coordinate regional environmental action and follow-up of the objectives.
- Government and Riksdag (parliament) decide on legislation, taxes and other policy instruments to meet the objectives.

**Sweden’s Environmental Objectives, Swedish Environmental Protection Agency**

“The EQO system is unique and constitutes a major society-wide undertaking towards sustainable development. However, in its current form, it does not provide a platform for targeted, effective and efficient actions: it does not establish policy priorities commensurate with available resources or sufficiently mobilise different stakeholders. So far the government has not formulated a convincing policy response to the widely accepted conclusion that most of the EQOs will not be reached by the 2020 deadline”

**OECD Environmental Performance Reviews: Sweden, 2014 – Assessment and Recommendations**
# Sweden’s 16 Environmental Quality Objectives

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduced climate impact</strong></td>
<td>In accordance with the UN Framework Convention on Climate Change, concentrations of greenhouse gases in the atmosphere must be stabilised at a level that will prevent dangerous anthropogenic interference with the climate system. This goal must be achieved in such a way and at such a pace that biological diversity is preserved, food production is assured and other goals of sustainable development are not jeopardised. Sweden, together with other countries, must assume responsibility for achieving this global objective.</td>
</tr>
<tr>
<td><strong>Clean air</strong></td>
<td>The air must be clean enough not to represent a risk to human health or to animals, plants or cultural assets.</td>
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<tr>
<td><strong>Natural acidification only</strong></td>
<td>The occurrence of man-made or extracted substances in the environment must not represent a threat to human health or biological diversity. Concentrations of non-naturally occurring substances will be close to zero and their impacts on human health and on ecosystems will be negligible. Concentrations of naturally occurring substances will be close to background levels.</td>
</tr>
<tr>
<td><strong>A non-toxic environment</strong></td>
<td>The occurrence of man-made or extracted substances in the environment must not represent a threat to human health or biological diversity. Concentrations of naturally occurring substances will be close to background levels.</td>
</tr>
<tr>
<td><strong>A protective ozone layer</strong></td>
<td>The ozone layer must be replenished so as to provide long-term protection against harmful UV radiation.</td>
</tr>
<tr>
<td><strong>A safe radiation environment</strong></td>
<td>Human health and biological diversity must be protected against the harmful effects of radiation.</td>
</tr>
<tr>
<td><strong>Zero eutrophication</strong></td>
<td>Nutrient levels in soil and water must not be such that they adversely affect human health, the conditions for biological diversity or the possibility of varied use of land and water.</td>
</tr>
<tr>
<td><strong>Flourishing lakes and streams</strong></td>
<td>Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.</td>
</tr>
<tr>
<td><strong>Good-quality groundwater</strong></td>
<td>Groundwater must provide a safe and sustainable supply of drinking water and contribute to viable habitats for flora and fauna in lakes and watercourses.</td>
</tr>
<tr>
<td><strong>A balanced marine environment, flourishing coastal areas and archipelagos</strong></td>
<td>The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterised by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilisation of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.</td>
</tr>
<tr>
<td><strong>Thriving wetlands</strong></td>
<td>The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.</td>
</tr>
<tr>
<td><strong>Sustainable forests</strong></td>
<td>The value of forests and forest land for biological production must be protected, at the same time as biological diversity and cultural heritage and recreational assets are safeguarded.</td>
</tr>
<tr>
<td><strong>A varied agricultural landscape</strong></td>
<td>The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.</td>
</tr>
<tr>
<td><strong>A magnificent mountain landscape</strong></td>
<td>The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.</td>
</tr>
<tr>
<td><strong>A good built environment</strong></td>
<td>Cities, towns and other built-up areas must provide a good, healthy living environment and contribute to a good regional and global environment. Natural and cultural assets must be protected and developed. Buildings and amenities must be located and designed in accordance with sound environmental principles and in such a way as to promote sustainable management of land, water and other resources.</td>
</tr>
<tr>
<td><strong>A rich diversity of plant and animal life</strong></td>
<td>Biological diversity must be preserved and used sustainably for the benefit of present and future generations. Species habitats and ecosystems and their functions and processes must be safeguarded. Species must be able to survive in long-term viable populations with sufficient genetic variation. Finally, people must have access to a good natural and cultural environment rich in biological diversity, as a basis for health, quality of life and well-being.</td>
</tr>
</tbody>
</table>
Swedish Environmental Code, 1999 - summary

Summary
• The Swedish Environmental Code was adopted in 1998 and entered into force 1 January 1999.
• The rules contained within 15 acts have been amalgamated in the Code. As many similar rules in previous statutes have been replaced with common rules, the number of provisions has been reduced.
• The Environmental Code is nonetheless a major piece of legislation. The Code contains 33 chapters comprising almost 500 sections. However, it is only the fundamental environmental rules that are included in the Environmental Code. More detailed provisions are laid down in ordinances made by the Government.

Outcome focus
• Role of duty of care: Chapter 2, General rules of consideration etc. sets out general rules, including Section 3 “Persons who pursue an activity or take a measure, or intend to do so, shall implement protective measures, comply with restrictions and take any other precautions that are necessary in order to prevent, hinder or combat damage or detriment to human health or the environment as a result of the activity or measure. For the same reason, the best possible technology shall be used in connection with professional activities. Such precautions shall be taken as soon as there is cause to assume that an activity or measure may cause damage or detriment to human health or the environment.”
• How outcomes are specified: Chapter 1 Section 1 states “The purpose of this Code is to promote sustainable development which will assure a healthy and sound environment for present and future generations. Such development will be based on recognition of the fact that nature is worthy of protection and that our right to modify and exploit nature carries with it a responsibility for wise management of natural resources. The Environmental Code shall be applied in such a way as to ensure that: 1. human health and the environment are protected against damage and detriment, whether caused by pollutants or other impacts; 2. valuable natural and cultural environments are protected and preserved; 3. biological diversity is preserved; 4. the use of land, water and the physical environment in general is such as to secure a long term good management in ecological, social, cultural and economic terms; and 5. reuse and recycling, as well as other management of materials, raw materials and energy are encouraged with a view to establishing and maintaining natural cycles.” The Environmental Code is accompanied by Sweden’s ‘generational goal’ and 16 ‘environmental quality objectives’, which do not have a legal status provide long term strategic orientation to guide environmental policy.
• How people are motivated to achieve objectives: The Environmental Code includes provisions for various forms of direct regulation, including permits, use of best available techniques, and the application of environmental quality standards.
• Tracking performance and taking corrective action: Chapter 26 - permit holders are required to monitor performance and report annually to the supervisory body (regulator). EQOs are also monitored by regulators to feed into national environmental policy making.
• Size and role of government: Chapter 5 provides for supervision of compliance with the code through national regulators and regional bodies.

Integration
• The Environmental Code provides the framework of common rules for a wide range of environmental objectives including prevention of environmental damage, protection of habitats and species, sustainable resource use and reuse and recycling.
• It amalgamated 15 acts into one code, reducing the number of provisions.
# Swedish Environmental Code, 1999 - structure

## 1: General provisions
- 1. Objectives and area of application of the Environmental Code
- 2. General rules of consideration etc.
- 3. Basic provisions concerning the management of land and water areas
- 4. Special provisions concerning land and water management in certain areas in Sweden
- 5. Environmental quality standards
- 6. Environmental impact statements and other decision guidance data

## 2: Protection of nature
- 7. Protection of areas
- 8. Special provisions concerning the protection of animal and plant species

## 3: Special provisions concerning certain activities
- 9. Environmentally hazardous activities and health protection
- 10. Polluted areas
- 11. Water operations
- 12. Quarries, agriculture and other activities
- 13. Genetic engineering
- 14. Chemical products and biotechnical organisms
- 15. Waste and producer responsibility

## 4: Consideration of cases and matters
- 16. General provisions concerning the consideration of cases and matters
- 17. The Government’s consideration of permissibility
- 18. The Government’s reviews of decisions etc. which have been appealed against
- 19. Consideration of matters by administrative authorities and municipalities
- 20. Courts
- 21. Cases in environmental courts
- 22. The procedure for application cases in environmental courts
- 23. Proceedings in the Superior Environmental Court and the Supreme Court
- 24. Validity and reviews etc. of permits
- 25. Litigation costs and similar costs
- 26. Supervision
- 27. Charges and fees
- 28. Access etc.

## 5: Supervision etc
- 29. Penalty provisions and forfeiture
- 30. Environmental sanction charges
- 31. Compensation for certain kinds of environmental damage and other private claims
- 32. Compensation in connection with public interventions and permit application procedures relating to water operation etc.
- 33. Environmental damage insurance and environmental clean-up insurance

## 6: Penalties

## 7: Compensation etc
<table>
<thead>
<tr>
<th>Annexes</th>
<th>Stakeholder engagement method</th>
<th>Duties and duty of care</th>
<th>Reform case studies</th>
<th>Environmental assessment</th>
<th>Local environmental planning</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Implications for EU reform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outline benefits map</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Queensland Environmental Protection Act 1994
Queensland

UK

Area: 243,610 km²
Population: 64 million

Queensland

Area: 1,852,642 km²
Population: 4.7 million
Summary

Queensland’s system of environmental law has a similar, relatively fragmented, structure to England’s system. However two acts, the Environmental Protection Act 1994 (EPA) and the Sustainable Planning Act 2009 (SPA), have some innovative features of particular relevance to achieving outcome focus and integration.

The object of the EPA is to provide environmental protection within the context of ecologically sustainable development.

The aim of the SPA is to seek to achieve ecological sustainability through integrated planning, development approval and ongoing environmental management.

Queensland: Environmental Protection Act 1994 (EPA)

How outcomes are specified

• The EPA creates offences of unlawfully causing serious or material environmental harm, where environmental harm means any adverse effect on an environmental value, and environmental value is “a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety”. The EPA therefore applies to all harmful impacts on environmental value, including for example pollution, land clearing and soil erosion. The Environmental Protection Regulation 2008 lists 64 Environmentally Relevant Activities (ERAs) that require an environmental authority (licence/permit).

Role of duty of care

• The EPA defines a general environmental duty:
  
  – “(1) A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the general environmental duty).
  
  – (2) In deciding the measures required to be taken under subsection (1), regard must be had to, for example- (a) the nature of the harm or potential harm; and (b) the sensitivity of the receiving environment; and (c) the current state of technical knowledge for the activity; and (d) the likelihood of successful application of the different measures that might be taken; and (e) the financial implications of the different measures as they would relate to the type of activity.”

• Section 493A of the EPA then provides, in effect, that an activity that causes serious or material environmental harm or environmental nuisance is unlawful unless it is approved under the EPA or the general environmental duty is complied with.

• The EPA allows for recognition of approved codes of practice, which are generally prepared by industry or industry associations. Complying with a code is voluntary but can be used to defend a charge of unlawfully causing environmental harm. 8 codes are currently (Feb 2015) listed.

How people are motivated to achieve objectives

• Offences under the EPA can lead to financial penalties or custodial sentences.

Tracking performance and taking corrective action

• The Department of Environment and Heritage Protection (DEHP) undertakes inspections and environmental monitoring for the EPA. The Department of Natural Resources and Mines monitors water quantity, among other things.

Size of role of government

• DEHP provides direct regulation of ERAs.
### Duties of care: Queensland Environmental Protection Act 1994 (1 of 2)

**1: **Environment includes:
- ecosystems and their constituent parts, including people and communities;
- all natural and physical resources;
- the qualities and characteristics of locations, places and areas, however large or small, that contribute to their biological diversity and integrity, intrinsic or attributed scientific value or interest, amenity, harmony and sense of community; and
- the social, economic, aesthetic and cultural conditions that affect, or are affected by, things mentioned in paragraphs (a) to (c).

**2: Environmental value** is ... a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety ... [or stated under an EPP].

**3: Environmental harm** is any adverse effect ... on an environmental value ... .

**4: Material environmental harm** is environmental harm:
- that is not trivial or negligible in nature, extent or context; or
- that causes actual or potential loss or damage to property of an amount of, or amounts totalling, more than [$5000] but less than [$50,000];
- that results in costs of more than [$5000] but less than [$50,000] being incurred in taking appropriate action to—
  - (i) prevent or minimise the harm; and
  - (ii) rehabilitate or restore the environment to its condition before the harm.

**5: Serious environmental harm** is environmental harm:
- that causes actual or potential harm to environmental values that is irreversible, of a high impact or widespread; or
- that causes actual or potential harm to environmental values of an area of high conservation value or special significance; or
- that causes actual or potential loss or damage to property of an amount of, or amounts totalling, more than [$50,000]; or
- that results in costs of more than the threshold amount being incurred in taking appropriate action to—
  - (i) prevent or minimise the harm; and
  - (ii) rehabilitate or restore the environment to its condition before the harm.

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* From Synopsis of the Queensland Environmental Legal System Dr Chris McGrath 5th edition 2011

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Smarter Environmental Legislation
Duties of care: Queensland Environmental Protection Act 1994 (2 of 2)

These concepts are critical for understanding the application of the Act because they define the scope of liability created by the major offences in ss 437 and 438 of unlawfully causing serious or material environmental harm. Two points about them should be noted in particular:

- an environmental value is not a physical thing but a quality or physical characteristic represented by a physical part of the environment. For example, a tree, a forest or an endangered species is not an environmental value but each of these things may represent environmental values such as biological diversity, conservation value and ecological integrity. Similarly, water is not an environmental value but the suitability of water for drinking is an environmental value.

- environmental harm is any adverse effect on an environmental value. The source or type of harm is irrelevant. Environmental harm is, therefore, not limited to pollution or the release of contaminants, but includes all forms of harm to environmental values such as land clearing and soil erosion. The Act can, therefore, potentially regulate any activity impacting on the environment.

Within the wide jurisdiction created for the prevention of environmental harm, the conceptual fulcrum of the Act is the relationship between ss 319 and 493A. Section 319 states the general environmental duty:

319 General environmental duty
(1) A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the general environmental duty).
(2) In deciding the measures required to be taken under subsection (1), regard must be had to, for example-
(a) the nature of the harm or potential harm; and
(b) the sensitivity of the receiving environment; and
(c) the current state of technical knowledge for the activity; and
(d) the likelihood of successful application of the different measures that might be taken; and
(e) the financial implications of the different measures as they would relate to the type of activity.

Section 493A provides, in effect, that an activity that causes serious or material environmental harm or environmental nuisance is unlawful unless it is approved under the EP Act or the general environmental duty is complied with. Relatively few activities are specifically approved under the EP Act but by taking all reasonable and practicable measures to prevent or minimise environmental harm the people carrying them out avoid potential liability under the Act.

* From Synopsis of the Queensland Environmental Legal System Dr Chris McGrath 5th edition 2011
Queensland: Managing environmental impacts of agriculture e.g. cane growers

Queensland Environmental Protection Act 1994

- Duty of care
- Definition of “environmental harm”
- Duty to inform
- Recognition of approved codes of practice
- Requirement for EA for ERAs
- Enforcement and penalties

Queensland Environmental Protection Regulation 2008

Environmentally relevant activities (ERAs) inc. some agricultural activities such as piggeries, prawn farms and cattle feedlots

ERAs need an Environmental Authority (EA) – a licence to undertake the activity.

If you cause environmental harm, the administering authority can take steps to make sure you comply with the law. In serious cases, you can be prosecuted under the Environmental Protection Act 1994. If you can demonstrate that when the environmental harm occurred, you were meeting the general environmental duty, you can use this as a defence. The administering authority can take a range of actions to encourage compliance with the law before it has to resort to prosecution. These include: issuing direction and clean-up notices and environmental protection orders; requiring an environmental evaluation to direct you to monitor your impacts; issuing penalty infringement notices.

*Department of Environmental and Heritage Protection (EHP) Department of Agriculture, Fisheries and Forestry (DAFF), or local government authority where the ERA will be located.
Queensland: e.g. cane growers using fertilisers

Sustainable Cane Growing in Queensland – approved code of practice

2.3.2. Fertilisers and soil ameliorants

Fourteen essential nutrients are required to produce healthy cane. Nutrients that are absent or low in concentrations need to be added by applying fertiliser. Fertiliser rate recommendations are shown in Schedule 1 (page 24 & 25).

2.3.3 Fertiliser application methods

Calibrate your fertiliser applicator each time you change the product you are applying. Where feasible, apply fertiliser below ground, either stool split or directly beside the stool (no more than 600 mm from the stool). Placement at the centre of the inter-row is not recommended. If fertilisers are applied on the surface, you should delay application until the cane has reached 50 cm in height. Surface banding of fertiliser is most effective when applied close to the stool. After completing surface application of fertiliser, apply 20-25 mm of overhead irrigation, or apply within 48 hours of a strong possibility of rain showers. If you use furrow irrigation, apply all fertiliser sub-surface unless it can be incorporated prior to irrigation. If you apply your fertiliser via trickle irrigation, use no fewer than three split applications of nitrogen. Biosolids (treated sewage sludge) from urban sewage treatment plants may be used as a source of nitrogen and organic matter. Guidelines for use are currently being developed by the DNR and CRC Sugar.

2.3.4 Fertiliser application rates

Carry out regular analytical testing of your soils to determine their nutrient status. Use the results of this soil testing to:
• ensure that the quantities of fertiliser you apply are matched to crop needs; and to
• determine whether nutrient leaching could be occurring.

Do not over apply fertilisers. Excessive nitrogen fertiliser application rates may lead to wasteful losses through:
• volatilisation and denitrification to the atmosphere;
• run-off in water; and
• leaching through the soil profile into underground aquifers.

These losses may have negative impacts elsewhere in the environment.
Major flooding from December 2010 to January 2011 affected the southern area of the Great Barrier Reef, while Tropical Cyclone Yasi (category five) in early February 2011 caused damage across 89,000 square kilometres (km²) of the Great Barrier Reef Marine Park. The effect of the cyclone on coral reefs was found to be highly variable, ranging from minor damage to 90 per cent of the same reef area. In the Great Barrier Reef Marine Park, 15 per cent of the total area incurred some coral damage, while six per cent was severely damaged.

The 2010–11 floods caused significant damage to waterways and adjacent floodplains in South East Queensland. It has been estimated that in 10 days during the floods the amount of sediment leaving non-rural areas in South East Queensland was just over three times the average annual sediment load.

On 11 March 2009, the Pacific Adventurer cargo ship was caught in Tropical Cyclone Hamish off the coast of Moreton Island. The vessel suffered two hull punctures from falling shipping containers. As a result, an estimated 270 tonnes of heavy fuel oil leaked into the ocean off the northern coast of Moreton Island in South East Queensland. The resultant oil slick affected beaches, rocky reefs, two coastal wetlands on the island, and beaches and mangrove wetlands between Bribie Island and Coolum Beach. The enormous clean up operation took over two months, involved 2500 people and resulted in the removal of 3000 tonnes of polluted sand.

Findings from the Ecosystem Health Monitoring Program, managed through Healthy Waterways Pty Ltd, indicates freshwater rivers and creeks in South East Queensland vary in condition, from good in systems such as the Noosa, Stanley and Nerang, to very poor in the Oxley, lower Brisbane and Redlands systems. Only the Bremer River appears to have shown an improvement in health over time. The Noosa River may be in decline; however this may be a reflection of previous drought conditions. In South East Queensland, there has been a general reduction in total phosphorus loads discharged from wastewater treatment plants over the last four years. While total nitrogen loads have remained steady in the four year reporting period, with a significant reduction in nitrogen loads discharged since 2002.

The Surface Water Ambient Network ambient water quality monitoring from across nine biological provinces in Queensland shows that of the sites where information was available, most sites passed guidelines for turbidity and electrical conductivity (a measure for salinity) (more than 90 per cent of the 192 sites sampled). For total phosphorus, 76 of the 118 sites sampled (or more than 64 per cent) met guideline values. For total nitrogen, 125 of the 154 sites sampled (or more than 81 per cent) met guideline values.

The Ecosystem Health Monitoring Program found estuaries in South East Queensland exhibited a wide range of conditions, from very good in the Noosa estuary to very poor in the Bremer, Oxley and Albert estuaries, all of which are subject to point discharges and considerable urban run-off. In the Fitzroy to Tin Can Bay region, monitoring showed that the condition of estuaries varied from near pristine to moderately impacted. Impacts on water quality were caused by both point source discharges and by inflows of catchment pollutant loads (i.e. nutrients and sediments). In many estuaries, greater impacts were probably associated with other factors, for example the restriction of freshwater inflows due to the construction of large and small impoundments and the associated impacts on fish passage between estuary and freshwater reaches.
Queensland: Additional controls for the Great Barrier Reef catchments

2013 Scientific Consensus Statement

• The overarching consensus is that **key Great Barrier Reef ecosystems are showing declining trends in condition due to continuing poor water quality, cumulative impacts of climate change and increasing intensity of extreme events.**

• The decline of marine water quality associated with terrestrial runoff from the adjacent catchments is a major cause of the current poor state of many of the key marine ecosystems of the Great Barrier Reef.

• The greatest water quality risks to the Great Barrier Reef are from nitrogen discharge, associated with crown-of-thorns starfish outbreaks and their destructive effects on coral reefs, and fine sediment discharge which reduces the light available to seagrass ecosystems and inshore coral reefs. Pesticides pose a risk to freshwater and some inshore and coastal habitats.

• Recent extreme weather - heavy rainfall, floods and tropical cyclones - have severely impacted marine water quality and Great Barrier Reef ecosystems. Climate change is predicted to increase the intensity of extreme weather events.

• The main source of excess nutrients, fine sediments and pesticides from Great Barrier Reef catchments is diffuse source pollution from agriculture.

• Improved land and agricultural management practices are proven to reduce the runoff of suspended sediment, nutrients and pesticides at the paddock scale.

Great Barrier Reef Protection Amendment Act 2009

• Makes commercial sugar cane growing and cattle grazing Environmentally Relevant Activities in specified catchments that affect the Great Barrier Reef, so they require Environmental Authorities (licences)

• Operators undertaking these ERAs must adhere to fertiliser application requirements (conduct soil testing + not apply above the “optimum rate”, defined by a calculator), maintain records, and those in hot spots need to produce an Environmental Risk Management Plan

Development of best management practice programmes

• Government is working with industry to support the development and delivery of best management practice (BMP) programs in sugar cane growing and cattle grazing.

• While the BMP programs are being developed and implemented, the reef protection regulations will stay in place in the Wet Tropics, Burdekin and Mackay Whitsunday catchments until the BMP systems have effect.
<table>
<thead>
<tr>
<th>Annexes</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implications for EU reform</td>
<td></td>
</tr>
<tr>
<td>Outline benefits map</td>
<td></td>
</tr>
<tr>
<td>Stakeholder engagement method</td>
<td></td>
</tr>
<tr>
<td>Duties and duty of care</td>
<td></td>
</tr>
<tr>
<td>Reform case studies</td>
<td></td>
</tr>
<tr>
<td>Environmental assessment</td>
<td></td>
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<tr>
<td>Local environmental planning</td>
<td></td>
</tr>
<tr>
<td>Case study: fwk for natural environment</td>
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Environment (Wales) Bill +
Well-being of Future Generations (Wales) Act 2015 and
Planning (Wales) Act 2015
Environment (Wales) Bill - summary

Summary

• The Environment (Wales) Bill is currently (Sept 2015) in process in the National Assembly for Wales. The Bill includes provision for: planning and managing Wales’ natural resources at a national and local level; providing Natural Resources Wales with a general purpose linked to statutory ‘principles of sustainable management of natural resources’ defined within the Bill; enhancing the powers available to NRW to undertake land management agreements and experimental schemes; providing a requirement for public authorities to maintain and enhance biodiversity; creating a statutory framework for action on climate change including targets for reducing emissions of greenhouse gasses; reforming the law on charges for carrier bags; providing powers to Welsh Ministers in relation to waste recycling (including the separate collection of waste); food waste treatment and energy recovery in business; making provision about several and regulated orders for fisheries for shellfish; fees for marine licences; establishing a Flood and Coastal Erosion Committee; and changes to the law on land drainage and bylaws made by NRW.

• It is one of a set of three bills legislating for sustainable development to secure the long term well-being of Wales. It is intended to create a clear picture of Wales’ natural resources and associated risks and opportunities. The linked Well-being of Future Generations (Wales) Act 2015 established overarching aims for Wales, while the Planning (Wales) Act 2015 is intended to ensure the right development is located in the right place.

Outcome focus

• The Well-being of Future Generations Act places in law a set of well-being goals which include environmental alongside other economic and social goals. The Environment (Wales) Bill then, among other things, provides a definition of ‘natural resources’ and ‘sustainable management’ and provides Natural Resources Wales (NRW) with a general duty that aligns fully with the statutory principles for the sustainable management of natural resources, and provides NRW with enhanced powers to undertake land management agreements and experimental schemes in line with those principles. The Bill also provides public authorities with a reshaped requirement to seek to maintain and enhance biodiversity.

Integration

• The Bill makes provision to help plan and manage Wales’ natural resources at a national and local level, through specific requirements for a State of Natural Resources Report (SoNaRR), a National Natural Resources Policy (NNRP) and area statements. The provisions will enable greater integration and simplification of policies, plans and programmes where this is consistent with existing statutory duties.
### Environment (Wales) Bill – structure (as introduced)

<table>
<thead>
<tr>
<th>PART 1 SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>1 Purpose of this Part</td>
</tr>
<tr>
<td>2 Natural resources</td>
</tr>
<tr>
<td>3 Sustainable management of natural resources</td>
</tr>
<tr>
<td>4 Principles of sustainable management of natural resources</td>
</tr>
<tr>
<td>General duties of public authorities</td>
</tr>
<tr>
<td>5 General purpose of Natural Resources Body for Wales</td>
</tr>
<tr>
<td>6 Biodiversity and resilience of ecosystems duty</td>
</tr>
<tr>
<td>7 Biodiversity lists and duty to take steps to maintain and enhance biodiversity State of natural resources report</td>
</tr>
<tr>
<td>8 Duty to prepare and publish state of natural resources report National natural resources policy</td>
</tr>
<tr>
<td>9 Duty to prepare, publish and implement national natural resources policy</td>
</tr>
<tr>
<td>Area-based implementation of the national policy</td>
</tr>
<tr>
<td>10 Area statements</td>
</tr>
<tr>
<td>11 Meaning of public body in sections 12 to 15</td>
</tr>
<tr>
<td>12 Welsh Ministers’ directions to implement area statements</td>
</tr>
<tr>
<td>13 Guidance about implementing area statements</td>
</tr>
<tr>
<td>14 Duty of public bodies to provide information or other assistance to public bodies</td>
</tr>
<tr>
<td>Land management agreements</td>
</tr>
<tr>
<td>16 Power to enter into land management agreements</td>
</tr>
<tr>
<td>17 Effect on successors in title of certain land management agreements</td>
</tr>
<tr>
<td>18 Application of Schedule 2 to the Forestry Act 1967 to land management agreements</td>
</tr>
<tr>
<td>19 Effect of agreements on dedication of highway and grant of easement</td>
</tr>
<tr>
<td>20 Transitional provisions</td>
</tr>
<tr>
<td>21 Crown land</td>
</tr>
<tr>
<td>Experimental schemes</td>
</tr>
<tr>
<td>22 Power to suspend statutory requirements for experimental schemes</td>
</tr>
<tr>
<td>23 Power of NRW to conduct experimental schemes etc.</td>
</tr>
<tr>
<td>General</td>
</tr>
<tr>
<td>24 Power to amend periods for the preparation and publication of documents</td>
</tr>
<tr>
<td>25 Regulations under this Part</td>
</tr>
<tr>
<td>26 General interpretation of this Part</td>
</tr>
<tr>
<td>27 Minor and consequential provision</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 2 CLIMATE CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>28 Purpose of this Part</td>
</tr>
<tr>
<td>29 The 2050 emissions target</td>
</tr>
<tr>
<td>30 Interim emissions targets</td>
</tr>
<tr>
<td>31 Carbon budgets</td>
</tr>
<tr>
<td>32 Interim emissions targets and carbon budgets: principles</td>
</tr>
<tr>
<td>Targets and budgets: scope and main concepts</td>
</tr>
<tr>
<td>33 The net Welsh emissions account</td>
</tr>
<tr>
<td>34 Net Welsh emissions</td>
</tr>
<tr>
<td>35 Welsh emissions from international aviation and shipping</td>
</tr>
<tr>
<td>36 Carbon units</td>
</tr>
<tr>
<td>37 Greenhouse gases</td>
</tr>
<tr>
<td>38 The baseline</td>
</tr>
<tr>
<td>Compliance with carbon budgets: reports and statements by the Welsh Ministers</td>
</tr>
<tr>
<td>39 Proposals and policies for meeting carbon budget</td>
</tr>
<tr>
<td>40 Carrying amounts from one budgetary period to another</td>
</tr>
<tr>
<td>41 Final statement for budgetary period</td>
</tr>
<tr>
<td>42 Proposals and policies where carbon budget not met</td>
</tr>
<tr>
<td>Compliance with emissions targets: statements by the Welsh Ministers</td>
</tr>
<tr>
<td>43 Statements for interim target years and 2050</td>
</tr>
<tr>
<td>Functions of advisory body: reports and advice</td>
</tr>
<tr>
<td>44 Advisory body</td>
</tr>
<tr>
<td>45 Progress reports</td>
</tr>
<tr>
<td>46 Duty of advisory body to provide advice and assistance</td>
</tr>
<tr>
<td>47 Guidance to advisory body Regulations: procedure and advice</td>
</tr>
<tr>
<td>48 Regulations: procedure</td>
</tr>
<tr>
<td>49 Requirement to obtain advice about proposals to make regulations</td>
</tr>
<tr>
<td>50 Advice about proposed regulations relating to targets and budgets</td>
</tr>
<tr>
<td>Measurement and interpretation</td>
</tr>
<tr>
<td>51 Measurement of emissions</td>
</tr>
<tr>
<td>52 International carbon reporting practice</td>
</tr>
<tr>
<td>53 General interpretation of this Part</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 3 CHARGES FOR CARRIER BAGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power to make regulations about charges for carrier bags</td>
</tr>
<tr>
<td>54 Meaning of “carrier bag”</td>
</tr>
<tr>
<td>55 Power to impose requirement to charge</td>
</tr>
<tr>
<td>56 Sellers of goods</td>
</tr>
<tr>
<td>57 Application of proceeds</td>
</tr>
<tr>
<td>Administration and enforcement</td>
</tr>
<tr>
<td>58 Administration</td>
</tr>
<tr>
<td>59 Record-keeping and publication of records</td>
</tr>
<tr>
<td>60 Enforcement</td>
</tr>
<tr>
<td>61 Civil sanctions General</td>
</tr>
<tr>
<td>62 Regulations under this Part</td>
</tr>
<tr>
<td>63 Regulations made with Secretary of State</td>
</tr>
<tr>
<td>64 General interpretation of this Part</td>
</tr>
<tr>
<td>65 Minor and consequential amendments and repeals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 4 COLLECTION AND DISPOSAL OF WASTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Separate collection etc. of waste</td>
</tr>
<tr>
<td>66 Requirements relating to separate collection etc. of waste</td>
</tr>
<tr>
<td>Disposal of waste</td>
</tr>
<tr>
<td>67 Prohibition on disposal of food waste to sewer</td>
</tr>
<tr>
<td>68 Power to prohibit or regulate disposal of waste by incineration</td>
</tr>
<tr>
<td>Enforcement</td>
</tr>
<tr>
<td>69 Civil sanctions General</td>
</tr>
<tr>
<td>General</td>
</tr>
<tr>
<td>70 Regulations</td>
</tr>
<tr>
<td>71 Minor and consequential amendments and repeals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 5 FISHERIES FOR SHELLFISH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applications for orders relating to fisheries</td>
</tr>
<tr>
<td>72 Applications for orders relating to fisheries Protection of marine environment</td>
</tr>
<tr>
<td>73 Requirement to include environmental provisions in orders relating to fisheries</td>
</tr>
<tr>
<td>74 Power to serve notices for protection of European marine sites</td>
</tr>
<tr>
<td>75 Power to vary or revoke orders to protect European marine sites</td>
</tr>
<tr>
<td>76 Supplementary provision</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 6 MARINE LICENSING</th>
</tr>
</thead>
<tbody>
<tr>
<td>77 Advice and assistance in relation to marine licensing</td>
</tr>
<tr>
<td>78 Fees for monitoring, variation etc. of marine licences</td>
</tr>
<tr>
<td>79 Further provision about payment of fees</td>
</tr>
<tr>
<td>80 Appeal against variation etc. of marine licence for non-payment of fee or deposit</td>
</tr>
<tr>
<td>81 Exceptions from power to delegate licensing authority functions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 7 MISCELLANEOUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood and Coastal Erosion Committee</td>
</tr>
<tr>
<td>82 Establishment of Flood and Coastal Erosion Committee</td>
</tr>
<tr>
<td>Land drainage</td>
</tr>
<tr>
<td>83 Repeal of requirements to publish in local newspapers etc.</td>
</tr>
<tr>
<td>84 Power to make provision for appeals against special levies</td>
</tr>
<tr>
<td>85 Power of entry: compliance with order for cleansing ditches etc.</td>
</tr>
<tr>
<td>Byelaws</td>
</tr>
<tr>
<td>86 Byelaws made by the Natural Resources Body for Wales</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PART 8 GENERAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpretation</td>
</tr>
<tr>
<td>88 Coming into force</td>
</tr>
<tr>
<td>89 Short title</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SCHEDULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule 1 — Charges for carrier bags: civil sanctions</td>
</tr>
<tr>
<td>Schedule 2 — Minor and consequential amendments and repeals</td>
</tr>
<tr>
<td>Part 1 — Sustainable management of natural resources</td>
</tr>
<tr>
<td>Part 2 — Charges for carrier bags</td>
</tr>
<tr>
<td>Part 3 — Collection and disposal of waste</td>
</tr>
<tr>
<td>Part 4 — Flood and Coastal Erosion Committee</td>
</tr>
<tr>
<td>Part 5 — Byelaws</td>
</tr>
</tbody>
</table>
### Regulatory Reform (Scotland) Act 2014

<table>
<thead>
<tr>
<th>Annexes</th>
<th>Outline benefits map</th>
<th>Stakeholder engagement method</th>
<th>Duties and duty of care</th>
<th>Reform case studies</th>
<th>Environmental assessment</th>
<th>Local environmental planning</th>
<th>Case study: fwk for natural environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implications for EU reform</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
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Regulatory Reform (Scotland) Act 2014 - summary

Summary
• The Regulatory Reform (Scotland) Act 2014 aims to improve the way regulation (i.e. activities of regulators, in particular the Scottish Environmental Protection Agency (SEPA)) is developed and applied.
• It includes: 1) Powers for Scottish Ministers to make the delivery of regulations more consistent; 2) A duty on regulators to contribute to achieving sustainable economic growth in regulatory activity; 3) A code of practice in relation to the exercise of regulatory functions; 4) Amending requirements for certificates of compliance for mobile food business street trader licence applications and 5) A framework for a primary authority scheme allowing businesses to receive tailored support from local authorities in relation to regulation.
• To support SEPA’s transformation programme it includes: 1) A new integrated framework for environmental regulation, to help simplify procedures for SEPA and businesses; 2) New enforcement tools to allow SEPA and criminal courts to better tackle environmental crime and be tougher with those who disregard their environmental obligations and measures to extend protection against intimidation or physical assaults to SEPA officers; and 3) A new statutory purpose for SEPA.

Outcome focus and integration
• The Act aims to enable measures that increase the integration of regulation by enabling regulators to focus on ensuring outcomes are achieved rather than only regulating activities.
• The policy notes from the Bill that led to the Act explains that it enables the regulation of environmental activities, which are defined in terms of activities capable of causing, or liable to cause, environmental harm. The Act defines “environmental harm” as (section 17 part 2)
  - “(a) harm to the health of human beings or other living organisms,
  - (b) harm to the quality of the environment, including—
    • harm to the quality of the environment taken as a whole,
    • harm to the quality of air, water or land, and
    • other impairment of, or interference with, ecosystems,
  - (c) offence to the senses of human beings,
  - (d) damage to property, or
  - (e) impairment of, or interference with, amenities or other legitimate uses of the environment.”
• The Act also places a duty on regulators in respect of sustainable economic growth (Section 4 part 1): “(1) In exercising its regulatory functions, each regulator must contribute to achieving sustainable economic growth, except to the extent that it would be inconsistent with the exercise of those functions to do so.”
• The policy note explains that this shifts the focus of the regulatory framework from pollution control to environmental harm. It enables the integration of the permissioning arrangements of SEPA’s four main regimes (water, waste, radioactive waste and pollution prevention and control) and simplification of regulatory procedures.
• The policy note explains that this will not only make the legislative framework and regulatory procedures easier for SEPA to apply consistently and for businesses to understand, reducing the administrative burden on both, it will also enable SEPA to better identify, and focus much effort on, the most important environmental risks and harms. This will ensure more effective and efficient protection of the environment, reduce the regulatory burden on business and allow SEPA to take opportunities to improve the environment. The Bill will also remove redundant provisions of existing environmental protection legislation.
• Role of duty of care: The term “duty of care” does not appear in the Act. The policy notes for the Bill explain that it provides for employers or principals to have vicarious criminal liability for environmental offences, as specified by the Scottish Ministers, if committed by their employees or agents. This will help ensure that those who benefit from offending behaviour are held accountable for regulatory breaches. It also provides for a new offence of causing or permitting significant environmental harm, where serious harm has actually been, or is likely to be, caused to the environment. The new offence will enable harm of that kind to be dealt with in a more effective and proportionate manner than under the current law.
• How outcomes are specified: See definition of “environmental harm” and regulators’ duty in respect of sustainable economic growth.
• How people are motivated to achieve objectives, and Tracking performance and taking corrective action: The Act is concerned with motivation through risk-based direct regulation.
• Size of role of government: The Act focuses on increasing the efficiency and effectiveness of government regulators. Enabling risk-based regulation (rather than requiring regulators to regulate a fixed set of activities) could in theory enable a smaller regulator to achieve greater impact.

http://www.scotland.gov.uk/Topics/Business-Industry/support/better-regulation/BetterRegulationBillConsultation

Outline benefits map

Environmental reform

Smarter Environmental Legislation

http://www.scottish.parliament.uk/S4_Bills/Regulatory%20Reform%20(Scotland)%20Bill/b26s4-introd-pm.pdf
Regulatory Reform (Scotland) Act 2014 - structure

PART 1 REGULATORY FUNCTIONS
Regulations to encourage or improve regulatory consistency
1. Power as respects consistency in regulatory functions;
2. Regulations under section 1: further provision
Compliance and enforcement
3. Regulations under section 1: compliance and enforcement
Exercise of regulatory functions: economic duty and code of practice
4. Regulators' duty in respect of sustainable economic growth;
Power to modify list of regulators
7. Power to modify schedule 1

PART 2 PRIMARY AUTHORITIES
8. Scope of Part 2; 9. Meaning of "relevant function";
10. Nomination of primary authorities; 11. Nomination of primary authorities: conditions and registers;

PART 3 ENVIRONMENTAL REGULATION
CHAPTER 1 REGULATIONS FOR PROTECTING AND IMPROVING THE ENVIRONMENT
16. General purpose: protecting and improving the environment; 17. Meaning of expressions used in section 16 and schedule 2; 18. Regulations relating to protecting and improving the environment; 19. Regulations relating to protecting and improving the environment: consultation

CHAPTER 2 SEPA’S POWERS OF ENFORCEMENT
Non-compliance penalties: 26. Undertakings under section 24: non-compliance penalties
Enforcement undertakings: 27. Enforcement undertakings
Publication of enforcement action: 32. Publication of enforcement action
Interpretation of Chapter 2: 33. Interpretation of Chapter 2

CHAPTER 3 COURT POWERS
Compensation orders: 34. Compensation orders against persons convicted of relevant offences
Fines: 35. Fines for relevant offences: court to consider financial benefits
Publicity orders: 36. Power to order conviction etc. for offence to be publicised; 37. Corporate offending

CHAPTER 4 MISCELLANEOUS
Vicarious liability: 38. Vicarious liability for certain offences by employees and agents; 39. Liability where activity carried out by arrangement with another
Offence relating to significant environmental harm: 40. Significant environmental harm: offence; 41. Power of court to order offence to be remedied; 42. Corporate offending
Offences relating to supply of carrier bags: fixed penalty notices: 43. Offences relating to supply of carrier bags: fixed penalty notices
Publicity and remediation orders: appeals by prosecutor: 44. Orders under sections 36 and 41: prosecutor’s right of appeal
Contaminated land and special sites: 45. Contaminated land and special sites
Air quality assessments: 49. Duty of local authorities in relation to air quality assessments etc
Smoke control areas: 50. Smoke control areas: authorised fuels and exempt fireplaces

CHAPTER 5 GENERAL PURPOSE OF SEPA
51. General purpose of SEPA

CHAPTER 6 REPORTING AND INTERPRETATION: PART 3
52. Annual report on operation of Part 3; 53. Meaning of "relevant offence" and "SEPA" in Part 3

PART 4 MISCELLANEOUS
Marine licensing decisions
54. Marine licence applications etc.: proceedings to question validity of decisions
Planning authorities' functions: charges and fees
55. Planning authorities’ functions: charges and fees
Street traders’ licences
56. Application for street trader’s licence: food businesses

PART 5 GENERAL

Schedule 1 Regulators for the purposes of Part 1
Schedule 2 Particular purposes for which provision may be made under section 18
Schedule 3 Minor and consequential modifications

Smarter Environmental Legislation
Climate Change Act 2008
Climate Change Act 2008 - summary

Overview
• UK signed up to Kyoto Protocol from 1995, an international agreement which commits its parties by setting internationally binding emission reduction targets.
• Climate Change Act 2008 established a framework to develop an economically credible emissions reduction path.
• Commits the UK to reducing emissions by at least 80% in 2050 from 1990 levels. This target was based on advice from the Committee on Climate Change (CCC).
• Requires the Government to set legally binding ‘carbon budgets’. A carbon budget is a cap on the amount of greenhouse gases emitted in the UK over a five-year period. CCC provides advice on the appropriate level of each carbon budget, designed to reflect cost effective path to achieving the long term objectives. First four carbon budgets have been put into legislation and run up to 2027.
• CCC set up to advise the Government on emissions targets, and report to Parliament on progress. Includes the Adaptation Subcommittee (ASC).
• National Adaptation Plan requires the Government to assess the UK’s risks from climate change, prepare a strategy to address them, and encourage critical organisations to do the same.

Outcome focus
• How outcomes are specified: Section 1 of the Act states “(1) It is the duty of the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 80% lower than the 1990 baseline. (2) “The 1990 baseline” means the aggregate amount of (a) net UK emissions of carbon dioxide for that year, and (b) net UK emissions of each of the other targeted greenhouse gases for the year that is the base year for that gas.”
• How people are motivated to achieve objectives: Various primarily economic incentives were already in place when the Climate Change Act was introduced (see below), and further primarily economic incentives have been introduced since.
• Role of duty of care: None identified.
• Tracking performance and taking corrective action: The CCC is responsible for advising Parliament on progress to achieving objectives, and advising the Government on the implications for future carbon budgets to keep the overall carbon account on track to achieve the 2050 objective.
• Size of role of government: The impact of the Climate Change Act on the size of government lies in the design of measures to achieve its objectives.

Integration
• The Climate Change Act focuses on setting an ambitious long-term legally binding target and mechanisms for measuring progress, rather than explicitly seeking to better integrate climate change, energy efficiency and renewable energy items of legislation.

http://www.legislation.gov.uk/ukpga/2008/27/section/1
http://www.lwec.org.uk/sites/default/files/GLOBE-CLIMATE-LEGISLATION-STUDY%5B1%5D.pdf
http://ec.europa.eu/clima/policies/ets/index_en.htm
Health and Safety At Work Act 1974
UK Health and Safety at Work etc. Act 1974 - summary

Summary

- The Health and Safety at Work etc Act, which largely reflected the recommendations of the 1972 Robens Report, introduced a broad goalsetting, non-prescriptive model, based on the view that ‘those that create risk are best placed to manage it’.
- In place of existing detailed and prescriptive industry regulations, it created a flexible system whereby regulations express goals and principles, and are supported by codes of practice and guidance.
- Required for the first time that employers and employees were to be consulted and engaged in the process of designing the health and safety system.
- Established the Health and Safety Commission (HSC) for the purpose of proposing new regulations, providing information and advice and conducting research.
- HSC’s operating arm, the Health and Safety Executive was formed shortly after in order to enforce health and safety law, a duty shared with Local Authorities.

Outcome focus

- Role of duty of care: Section 2 (General duties of employers to their employees) of the Act states “It shall be the duty of every employer to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all his employees.” Later sections specify other duties, including duties of employees.
- How outcomes are specified: Guidance, Approved Codes Of Practice (ACOPs) and specific (typically more prescriptive) regulations explain how the objective of achieving health, safety and welfare could or must be achieved.
- How people are motivated to achieve objectives: HSE emphasises both the business benefits of good health and safety performance, and the sanctions (including fines, disqualification and imprisonment) that may be applied to organisations or individuals for failure to fulfil their duties.
- Tracking performance and taking corrective action: HSE and local authorities inspect organisations, targeting inspections according to risk e.g. because there is evidence that H&S performance is poor in a business or sector, because an industry is hazardous, or to investigate a specific incident or complaint. Inspections examine whether sensible actions are being taken to reduce H&S risks. HSE uses a variety of data sources, including surveys and surveillance schemes, to provide statistics on UK H&S.

Integration

- The Act explicitly aims to replace the existing regulations with a new regulatory system, to “maintain or improve” healthy, safety and welfare standards. Section 1 part 2 of the Act states “The provisions of this Part relating to the making of health and safety regulations…and the preparation and approval of codes of practice shall in particular have effect with a view to enabling the enactments specified in the third column of Schedule 1 and the regulations, orders and other instruments in force under those enactments to be progressively replaced by a system of regulations and approved codes of practice operating in combination with the other provisions of this Part and designed to maintain or improve the standards of health, safety and welfare established by or under those enactments.”

Implications for EU reform

Outline benefits map

Stakeholder engagement method

Duties and duty of care

Reform case studies

Environmental assessment

Local environmental planning

Case study: fwk for natural environment

Annexes

Stakeholder engagement method

Duties and duty of care

Reform case studies

Environmental assessment

Local environmental planning

Case study: fwk for natural environment

Outline benefits map

Expected benefits

Benefits

- In place of existing detailed and prescriptive industry regulations, it created a flexible system whereby regulations express goals and principles, and are supported by codes of practice and guidance.
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Expected outcomes

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Size of role of government: The Act created the Health and Safety Executive, to which the staff of the following inspectorates were transferred: HM Factory Inspectorate, the Explosives Inspectorate (from the Home Office), the Employment Medical Advisory Service (with its doctors and occupational nurses returning from the Department of Employment), the Nuclear Installations Inspectorate and the Mines and Quarries Inspectorate (from the Department of Energy), the Safety in Mines Research Establishment, the British Approvals Service for Electrical Equipment in Flammable Atmospheres (BASEEFA) and the Alkali and Clean Air Inspectorate (from the Department of the Environment).

http://www.hse.gov.uk/aboutus/reports/30years.pdf
http://www.historyofosh.org.uk/themes/legislation.html
**UK Health and Safety at Work etc. Act 1974 - structure**

### Part I Health, Safety and Welfare in connection with Work, and Control of Dangerous Substances and Certain Emissions into the Atmosphere

#### 1. Preliminary

**General duties**

- 2. General duties of employers to their employees. 3. General duties of employers and self-employed to persons other than their employees. 4. General duties of persons concerned with premises to persons other than their employees. 5. General duty of persons in control of certain premises in relation to harmful emissions into atmosphere. 6. General duties of manufacturers etc. as regards articles and substances for use at work. 7. General duties of employees at work. 8. Duty not to interfere with or misuse things provided pursuant to certain provisions. 9. Duty not to charge employees for things done or provided pursuant to certain specific requirements.

#### The Health and Safety Commission and the Health and Safety Executive


#### Health and safety regulations and approved codes of practice


#### Enforcement


#### Obtaining and disclosure of information

- 27. Obtaining of information by the Commission, the Executive, enforcing authorities etc. 27A. Information communicated by Commissioners for Revenue and Customs. 28. Restrictions on disclosure of information. Special provisions relating to agriculture 29. Agricultural health and safety regulations. 31, 32.

#### Provisions as to offences


#### Financial provisions

- 43. Financial provisions. 43A. Railway safety levy.

### Part II The Employment Medical Advisory Service

- 55. Functions of, and responsibility for maintaining, employment medical advisory service. 56. Functions of authority responsible for maintaining the service. 57. Fees. 58. Other financial provisions. 59. Duty of responsible authority to keep accounts and to report. 60. Supplementary.

### Part III Building Regulations, and Amendment of Building (Scotland) Act 1959

- 61, 62; 63. Miscellaneous provisions as to the approval of plans. 64—69; 70. Power to make building regulations for Inner London. 71—74; 75. Amendment of Building (Scotland) Act 1959. 76;

### Part IV Miscellaneous and General


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**Smarter Environmental Legislation**

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112
Environmental objectives & rolling environmental assessment
Points from science advisors discussion

- Objectives need to be SMART (specific, measurable, achievable, relevant, time-bound).
- Objectives could usefully be structured with a headline, a definition of outcomes that will be measured, and an explanation of how they will be measured. Where there are trade-offs, the target balance needs to be explained.
- Where there are trade-offs or tensions between objectives these should be made explicit and decisions about relative priorities made (e.g. between increasing food production and increasing biodiversity; reducing carbon emissions and improving air quality while burning wood; producing timber while supporting biodiversity and providing recreation). We cannot expect all indicators to improve – instead we need to work out the preferred balance. If we don’t do this then businesses will receive contradictory messages about what is wanted, leading to confusion.
- All terms need to be clearly defined. “Safe”, “efficient” and “sustainable” are all words that have been relatively well-defined, meaningful and useful. The meaning of “healthy” is less clear, and changes over time.
- Objectives and indicators need to give a sense of where we are trying to get to, how close we are to getting there, and therefore where action needs to be taken.
- Indicators should be internationally comparable where possible. This will help to develop understanding about what drives outcomes and what can be done to improve them. Businesses are also likely to want internationally comparable standards.
- Some established indicators are more reliable than others, e.g. because of how they are measured. Defra should have a view on which existing European Environment Agency (EEA) indicators are the most useful, be able to explain to the EEA/European Commission which ones need to be improved, and also identify any gaps.
- Indicators should be under our control, measurable, highly correlated with the desired outcome, and leading.
- It could be useful to create a top-level indicator to reflect our overall environmental performance, perhaps as an index that aggregates more detailed indicators. People would still want to be able to understand the more detailed indicators underneath.
- The value of natural capital could be the top level indicator, although some felt this needs further development to fulfil this role e.g. how do pesticides or air quality fit in to this approach?
- It is necessary to phrase objectives so that they are meaningful to the general public and politicians. However, this is challenging, in part because associated indicators can be quite technical. More technical objectives may need to be summarised by a simple high-level vision/mission.
- Some thought the use of economic valuation in natural capital accounting makes this approach difficult for the lay-person to understand.
- Some measurements can be scientifically meaningful indicators of environmental conditions and be meaningful to the public e.g. the numbers of fish in a river.
- While the average person probably focuses on the form of the environment they want to see, valuing different flows of benefits leads us to focus more on the function of the environment. Objectives focused on form are likely to be quite different to those focused on function.
- Using a risk assessment/ RAG status to highlight where problems are is a useful way to communicate what the indicators are telling you. Variations on this approach have been adopted by the EEA, the Committee on Climate Change Adaptation Sub-committee, and the Natural Capital Committee (NCC).
- Much work has already been done in formulating objectives and indicators (e.g. Office for National Statistics, NCC, EEA) and we should avoid reinventing the wheel.
## EEA Core Set of Indicators (CSI)

<table>
<thead>
<tr>
<th>EEA Ref</th>
<th>EEA DPSIR classification</th>
<th>EEA Temporal coverage</th>
<th>EEA Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSI 6</td>
<td>Driving force</td>
<td>1986-2011</td>
<td>Production and consumption of ozone depleting substances (CSI 006/CLIM 049)</td>
</tr>
<tr>
<td>CSI 27</td>
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<td>1990-2012</td>
<td>Final energy consumption by sector and fuel (CSI 027/ENER 016)</td>
</tr>
<tr>
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<td>Primary energy consumption by fuel (CSI 029/ENER 026)</td>
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<td>CSI 35</td>
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<td>Passenger transport demand (CSI 035/TERM 012)</td>
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<td>Freight transport demand (CSI 036/TERM 013)</td>
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<td>Pressure</td>
<td>1990-2011, 2020</td>
<td>Emissions of acidifying substances (CSI 001/APE 007)</td>
</tr>
<tr>
<td>CSI 2</td>
<td>Pressure</td>
<td>1990-2020</td>
<td>Emissions of ozone precursors (CSI 002/APE 008)</td>
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<tr>
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<td>1990-2011</td>
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<tr>
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<td>Pressure</td>
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<td>Total greenhouse gas (GHG) emission trends and projections (CSI 010/CLIM 050)</td>
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<tr>
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<td>Pressure</td>
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<td>Progress to greenhouse gas emission targets (CSI 011/CLIM 051)</td>
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<tr>
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<td>1985-2012</td>
<td>Chlorophyll in transitional, coastal and marine waters (CSI 023/MAR 006)</td>
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<td>CSI 33</td>
<td>Pressure</td>
<td>1990-2012</td>
<td>Aquaculture production (CSI 033/MAR 008)</td>
</tr>
<tr>
<td>CSI 34</td>
<td>Pressure</td>
<td>2004-2011</td>
<td>Fishing fleet pressure (CSI 034/MAR 009)</td>
</tr>
<tr>
<td>CSI 41</td>
<td>Pressure</td>
<td>2004-2013</td>
<td>Waste generation (CSI 041/WST 004)</td>
</tr>
<tr>
<td>CSI 4</td>
<td>State</td>
<td>2000-2012</td>
<td>Exceedance of air quality limit values in urban areas (CSI 004)</td>
</tr>
<tr>
<td>CSI 7</td>
<td>State</td>
<td>2008</td>
<td>Species of European interest (SEBI 003/CSI 007)</td>
</tr>
<tr>
<td>CSI 9</td>
<td>State</td>
<td>1980-2002</td>
<td>Species diversity (CSI 009)</td>
</tr>
<tr>
<td>CSI 12</td>
<td>State</td>
<td>1850-2100</td>
<td>Global and European temperature (CSI 012/CLIM 001)</td>
</tr>
<tr>
<td>CSI 13</td>
<td>State</td>
<td>1800-2013</td>
<td>Atmospheric greenhouse gas concentrations (CSI 013/CLIM 052)</td>
</tr>
<tr>
<td>CSI 19</td>
<td>State</td>
<td>1992-2012</td>
<td>Oxygen consuming substances in rivers (CSI 019/WAT 002)</td>
</tr>
<tr>
<td>CSI 20</td>
<td>State</td>
<td>1992-2012</td>
<td>Nutrients in freshwater (CSI 020/WAT 003)</td>
</tr>
<tr>
<td>CSI 21</td>
<td>State</td>
<td>1985-2012</td>
<td>Nutrients in transitional, coastal and marine waters (CSI 021/MAR 005)</td>
</tr>
<tr>
<td>CSI 22</td>
<td>State</td>
<td>1990-2011</td>
<td>Bathing water quality (CSI 022/WAT 004)</td>
</tr>
<tr>
<td>CSI 32</td>
<td>State</td>
<td>1950-2012</td>
<td>Status of marine fish stocks (CSI 032/MAR 007)</td>
</tr>
<tr>
<td>CSI 8</td>
<td>Response</td>
<td>1996-2008</td>
<td>Designated areas (CSI 008)</td>
</tr>
<tr>
<td>CSI 15</td>
<td>Response</td>
<td>2006-2012</td>
<td>Progress in management of contaminated sites (CSI 015/LSI 003)</td>
</tr>
<tr>
<td>CSI 24</td>
<td>Response</td>
<td>1980, 1985, 1990-2010</td>
<td>Urban waste water treatment (CSI 024/WAT 005)</td>
</tr>
<tr>
<td>CSI 28</td>
<td>Response</td>
<td>1990-2012</td>
<td>Energy intensity (CSI 028/ENER 017)</td>
</tr>
<tr>
<td>CSI 30</td>
<td>Response</td>
<td>1990-2012</td>
<td>Renewable energy in gross inland energy consumption (CSI 030/ENER 029)</td>
</tr>
<tr>
<td>CSI 31</td>
<td>Response</td>
<td>1990-2012</td>
<td>Renewable electricity (CSI 031/ENER 030)</td>
</tr>
<tr>
<td>CSI 37</td>
<td>Response</td>
<td>2001-2011</td>
<td>Use of cleaner and alternative fuels (CSI 037/TERM 031)</td>
</tr>
</tbody>
</table>
## Translating national objectives into action

<table>
<thead>
<tr>
<th>Steps to translate national objectives into local action</th>
<th>Purpose</th>
<th>Indicators needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>National objectives</td>
<td>Stated in legislation as long-term duties on the SoS, generally in terms of environmental outcomes to be achieved. Provides clear indication of government commitment and intent to industry.</td>
<td>To hold SoS to account, need aggregate indicators to measure progress towards objectives for whole economy</td>
</tr>
<tr>
<td>National strategy</td>
<td>Rolling national strategy explaining government’s plan to deliver SoS duties. Explains how different sectors/localities will contribute. 5-yearly State of the Environment Report evidences progress and describes future actions.</td>
<td>For national strategy, need national indicators of drivers, pressures, state of environment, impacts and responses</td>
</tr>
<tr>
<td>Local environmental plans</td>
<td>Local environmental plan for each area explaining its contribution to delivery of the national objectives, and setting local targets.</td>
<td>For local strategy, need local indicators of drivers, pressures, state of environment, impacts and responses</td>
</tr>
<tr>
<td>Duty of care</td>
<td>Provides general protection for the environment, requiring reasonable steps to be taken to avoid harm to the environment, and compliance with permit where applicable. ‘Reasonable steps’ explained by codes of practice, or reasonable alternative may be accepted by regulator.</td>
<td></td>
</tr>
<tr>
<td>Codes of practice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duty to cooperate</td>
<td>Provides a mechanism for government and industry (nationally and/or locally) to agree how to deliver objectives, if needed in addition to basic protection from harm afforded by duty of care.</td>
<td>For assurance, need local indicators of pressures (e.g. emissions from permitted sites) and state of environment (e.g. local air and water quality, characteristics of land cover)</td>
</tr>
<tr>
<td>General binding rules</td>
<td>Rules that apply to everyone, that contribute to delivery of national objectives.</td>
<td></td>
</tr>
<tr>
<td>Regulation</td>
<td>Regulatory system, including permits. Permit requirements are set according to national strategy, and may include undertakings agreed through duty to cooperate.</td>
<td></td>
</tr>
</tbody>
</table>
## Translating national objectives into action

### Steps to translate national objectives into local action

<table>
<thead>
<tr>
<th>National objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective: Clean air to breathe, where technically &amp; economically feasible?</td>
</tr>
<tr>
<td>Indicator: Population health impact of air quality</td>
</tr>
<tr>
<td>DPSIR for air quality. National strategy for improvement.</td>
</tr>
<tr>
<td>Local target ambient air quality (national standard?). Current &amp; trend local ambient air quality.</td>
</tr>
<tr>
<td>Take reasonable steps to avoid harm to air quality.</td>
</tr>
<tr>
<td>Comply with permit requirements for emissions to air if applicable.</td>
</tr>
<tr>
<td>Agree additional undertakings for air quality if necessary e.g. in air pollution hotspots.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water quality</th>
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</thead>
<tbody>
<tr>
<td>Water clean enough for use?</td>
</tr>
<tr>
<td>Proportion of water bodies meeting quality needs for local use</td>
</tr>
<tr>
<td>DPSIR for water quality. National strategy for improvement.</td>
</tr>
<tr>
<td>Local quality target to meet use (e.g. higher if sensitive area). Current &amp; trend local water quality.</td>
</tr>
<tr>
<td>Take reasonable steps to avoid harm to water quality.</td>
</tr>
<tr>
<td>Comply with permit requirements for emissions to water if applicable.</td>
</tr>
<tr>
<td>Agree additional undertakings for water quality if necessary e.g. in nitrate vulnerable zones.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Habitats</th>
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</thead>
<tbody>
<tr>
<td>Halt decline/ maintain/ restore natural habitat?</td>
</tr>
<tr>
<td>National distribution, quality and quantity of natural habitat</td>
</tr>
<tr>
<td>DPSIR for natural habitat. National strategy for improvement.</td>
</tr>
<tr>
<td>Local habitat distribution, quality and quantity targets. Current &amp; trend local habitat distribution, quality and quantity.</td>
</tr>
<tr>
<td>Take reasonable steps to avoid harm to habitats.</td>
</tr>
<tr>
<td>Comply with management requirements e.g. for protected areas if applicable.</td>
</tr>
<tr>
<td>Agree additional undertakings to contribute to increasing natural habitat?</td>
</tr>
</tbody>
</table>
### Examples of current environmental objectives

#### Air quality

<table>
<thead>
<tr>
<th>Objective</th>
<th>Source</th>
<th>Legal status</th>
</tr>
</thead>
<tbody>
<tr>
<td>“all citizens should have access to outdoor air without significant risk to their health, where this is economically and technically feasible”</td>
<td>The Air Quality Strategy for England, Scotland, Wales and Northern Ireland, Vol 1, 2007 p.13</td>
<td>“The Environment Act 1995 requires that the Environment Agency...have regard to the Air Quality Strategy in exercising their pollution control functions, particularly under the Environmental Protection Act 1990 and under the Pollution Prevention and Control Regulations 2000 (PPC) and the Pollution Prevention and Control (Scotland) Regulations 2000. Local authorities are also required to work towards the Strategy’s objectives prescribed in regulations for that purpose...The air quality objectives in the Air Quality Strategy are a statement of policy intentions or policy targets. As such, there is no legal requirement to meet these objectives except in as far as these mirror any equivalent legally binding limit values in EU legislation. Where UK standards or objectives are the sole consideration, there is no legal obligation upon regulators, to set Emission Limit Values (ELVs) any more stringent than the emission levels associated with the use of Best Available Techniques (BAT) in issuing permits under the PPC Regulations.” UK AQ Strategy 2007, p14</td>
</tr>
<tr>
<td>“achieving “levels of air quality that do not give rise to significant negative impacts on, and risks to human health and the environment””. For the natural environment, this means no exceedence of critical loads and levels.”</td>
<td>EU Sixth Environmental Action Plan (ref’d in UK AQ Strategy 2007, p14)</td>
<td></td>
</tr>
</tbody>
</table>

#### Water quality

<table>
<thead>
<tr>
<th>Objective</th>
<th>Source</th>
<th>Legal status</th>
</tr>
</thead>
<tbody>
<tr>
<td>“The WFD says that every EU member: • must reach ‘good water body status’ by 2015, and • cannot allow water body standards to drop. The deadline for achieving ‘good water body status’ can be extended to 2021 or 2027 if needed for ‘technical or economic’ reasons.”</td>
<td>Policy paper: 2010 to 2015 government policy: water quality, 7th May 2015</td>
<td>“We need to improve the quality of our open waters, also known as ‘water-bodies’. These include rivers, streams, lakes, estuaries, coastal waters and groundwater. We need to do this as only 27% of our water-bodies in England are currently classified as being of ‘good status’ under new standards set down by the EU Water Framework Directive.” 2010-2015 WQ Policy Paper, 2015</td>
</tr>
</tbody>
</table>
Examples of current environmental objectives

### Biodiversity

<table>
<thead>
<tr>
<th>Objective</th>
<th>Source</th>
<th>Legal status</th>
</tr>
</thead>
</table>
| “The mission for this strategy, for the next decade, is: to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.” | Biodiversity 2020: A strategy for England’s wildlife and ecosystem services, 2011 | “Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets...the Nagoya UN Biodiversity Summit in October 2010...established a new global vision for biodiversity – a world of “living in harmony with nature” where:

- ‘By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.’

Parties also agreed a shorter term ambition to:

- ‘Take effective and urgent action to halt the loss of biodiversity in order to ensure that by 2020 ecosystems are resilient and continue to provide essential services, thereby securing the planet’s variety of life, and contributing to human wellbeing, and poverty eradication.’

+ European Union Biodiversity

In March 2010, the EU agreed to an EU vision and 2020 mission for biodiversity:

- By 2050, European Union biodiversity and the ecosystem services it provides – its natural capital – are protected, valued and appropriately restored for biodiversity’s intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided.

- Halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restore them insofar as is feasible, while stepping up the EU contribution to averting global biodiversity loss.

The European Commission has adopted a new EU Biodiversity strategy to help meet this goal.” | Biodiversity 2020, 2011
Biodiversity 2020 vision, mission and outcomes

A Vision for England
By 2050 our land and seas will be rich in wildlife, our biodiversity will be valued, conserved, restored, managed sustainably and be more resilient and able to adapt to change, providing essential services and delivering benefits for everyone.

2020 Mission
Our mission is to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.

Outcome 1 – Habitats and ecosystems on land (including freshwater environments)
By 2020 we will have put in place measures so that biodiversity is maintained and enhanced, further degradation has been halted and where possible, restoration is underway, helping deliver more resilient and coherent ecological networks, healthy and well-functioning ecosystems, which deliver multiple benefits for wildlife and people, including:

• 1A. Better wildlife habitats with 90% of priority habitats in favourable or recovering condition and at least 50% of SSSIs in favourable condition, while maintaining at least 95% in favourable or recovering condition;
• 1B. More, bigger and less fragmented areas for wildlife, with no net loss of priority habitat and an increase in the overall extent of priority habitats by at least 200,000 ha;
• 1C. By 2020, at least 17% of land and inland water, especially areas of particular importance for biodiversity and ecosystem services, conserved through effective, integrated and joined up approaches to safeguard biodiversity and ecosystem services including through management of our existing systems of protected areas and the establishment of nature improvement areas;
• 1D. Restoring at least 15% of degraded ecosystems as a contribution to climate change mitigation and adaptation.

Outcome 2 – Marine habitats, ecosystems and fisheries
By 2020 we will have put in place measures so that biodiversity is maintained, further degradation has been halted and where possible, restoration is underway, helping deliver good environmental status and our vision of clean, healthy, safe productive and biologically diverse oceans and seas. This will be underpinned by the following:

• 2A. By the end of 2016 in excess of 25% of English waters will be contained in a well-managed Marine Protected Area network that helps deliver ecological coherence by conserving representative marine habitats;
• 2B. By 2020 we will be managing and harvesting fish sustainably;
• 2C. By 2022 we will have marine plans in place covering the whole of England’s marine area, ensuring the sustainable development of our seas, integrating economic growth, social need and ecosystem management.

Outcome 3 – Species
By 2020, we will see an overall improvement in the status of our wildlife and will have prevented further human-induced extinctions of known threatened species.

Outcome 4 – People
By 2020, significantly more people will be engaged in biodiversity issues, aware of its value and taking positive action.
Summary of existing approaches

• EU vision
  – ‘In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society’s resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a global safe and sustainable society.’ 7th EU Environment Action Programme

• EEA
  – EEA has suite of 137 indicators, of which 34 are core
  – Indicators are classified as descriptive, or of performance, efficiency, policy effectiveness, or total welfare
  – Indicators are also classified as measures of drivers, pressures, states, impacts or responses (DPSIR)
  – Indicators are used [how?] in 5 yearly State of the Environment Report to assess historic and expected future trends for the environment

• Natural Capital Committee & Corporate Natural Capital Accounts (CNCA)
  – Recommend development on national natural capital accounts
  – Recommend businesses adopt corresponding corporate natural capital accounts
  – Natural capital needs to be characterised in terms of
    • Stocks – extent, quality, spatial configuration
    • Flows
    • Value of flows
    • Value of stocks

• ONS Natural Capital Accounts
  – Are developing natural capital accounts according to roadmap to 2020
  – So far have developed land use cross-cutting account, and broad habitat accounts for woodlands and water bodies

• Could also look at UN SEEA – United Nations System of Environmental-Economic Accounting
# Defra England Natural Environment Indicators May 2014

The EEA State of Environment report has outlook as well as historic trend.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Measure</th>
<th>Long Term Trend</th>
<th>Short Term Trend</th>
<th>Current Data</th>
<th>Year</th>
<th>Long Term Baseline Year</th>
<th>Long Term Baseline Year</th>
<th>Short Term Baseline Year</th>
<th>Short Term Baseline Year</th>
<th>Specific Measurement (from supporting data tables)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Butterflies of the wider countryside on farmland</td>
<td>Decreasing</td>
<td>Decreasing</td>
<td>113</td>
<td>2012</td>
<td>1990</td>
<td>1999</td>
<td>114</td>
<td>2007</td>
<td>Species population count index</td>
</tr>
<tr>
<td></td>
<td>Widespread bats</td>
<td>Decreasing</td>
<td>Decreasing</td>
<td>188</td>
<td>2012</td>
<td>1999</td>
<td>1997</td>
<td>218</td>
<td>2005-6</td>
<td>Species population count index</td>
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<tr>
<td></td>
<td>Historical pipistrelle bat populations †</td>
<td>Decreasing</td>
<td>Decreasing</td>
<td>130</td>
<td>1999</td>
<td>243</td>
<td>1977</td>
<td>218</td>
<td>2005-6</td>
<td>Species population count index</td>
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<tr>
<td></td>
<td>Breeding wetland birds</td>
<td>Decreasing</td>
<td>Decreasing</td>
<td>132</td>
<td>2012</td>
<td>1975</td>
<td>112</td>
<td>2006</td>
<td>Species population count index</td>
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<tr>
<td></td>
<td>Wintering water birds</td>
<td>Decreasing</td>
<td>Decreasing</td>
<td>197</td>
<td>2011-12</td>
<td>188</td>
<td>1975-6</td>
<td>218</td>
<td>2005-6</td>
<td>Species population count index</td>
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<tr>
<td></td>
<td>Breeding woodland birds</td>
<td>Decreasing</td>
<td>Decreasing</td>
<td>112</td>
<td>2012</td>
<td>1970</td>
<td>81</td>
<td>2006</td>
<td>Species population count index</td>
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<tr>
<td></td>
<td>Butterflies of the wider countryside in woodland</td>
<td>Decreasing</td>
<td>Decreasing</td>
<td>27</td>
<td>2012</td>
<td>1980</td>
<td>50</td>
<td>2007</td>
<td>Species population count index</td>
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</tr>
<tr>
<td></td>
<td>Breeding seabirds</td>
<td>Decreasing</td>
<td>Decreasing</td>
<td>182</td>
<td>2012</td>
<td>1988</td>
<td>104</td>
<td>2007</td>
<td>Species population count index</td>
<td></td>
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<tr>
<td>2. River Water Quality</td>
<td>Proportion of rivers with good or high biological quality status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Proportion of rivers with good or high biological quality status</td>
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<td></td>
<td>Proportion of rivers that pass on chemical status</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Proportion of rivers that pass on chemical status</td>
</tr>
<tr>
<td>3. Marine Ecosystem Integrity</td>
<td>Fish size class</td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Percentage of large fish (equal to or larger than 40cm) by weight</td>
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<td>Marine Litter</td>
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<td></td>
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<td></td>
<td></td>
<td>Litter items/km²</td>
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<tr>
<td>4. Priority species and habitats</td>
<td>Number of priority species that are stable or increasing</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Change in the relative abundance of priority species in the UK</td>
</tr>
<tr>
<td></td>
<td>Number of priority habitats that are stable or increasing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Condition of all priority habitats by area (%)</td>
</tr>
<tr>
<td>5. Land Use</td>
<td>Land Use (context)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Proportion of land under each type of use</td>
</tr>
<tr>
<td></td>
<td>Development on undeveloped land removed, replaced by 5a</td>
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<tr>
<td></td>
<td>Percentage of woodland in active management</td>
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<tr>
<td>6. Natural Stocks</td>
<td>Sustainable fisheries</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td>Percentage of fish stocks harvested sustainably and at full reproductive capacity</td>
</tr>
<tr>
<td></td>
<td>Water abstraction</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td>Index of Water Abstraction 1991–100 [total volume]</td>
</tr>
<tr>
<td></td>
<td>Forest carbon stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Million tonnes of carbon dioxide equivalent</td>
</tr>
<tr>
<td></td>
<td>Soil carbon concentration</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>Mean Carbon Concentration (g/kg)</td>
</tr>
<tr>
<td>7. Raw Material Consumption</td>
<td>Raw material consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Raw material (tonnage) consumption index</td>
</tr>
<tr>
<td>8. National Environmental Accounts</td>
<td>National environmental accounts</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>9. Integrating biodiversity and natural environment considerations into business activity</td>
<td>Integrating biodiversity and natural environment considerations into business activity</td>
<td></td>
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</tr>
<tr>
<td>10. Public Engagement with the Natural Environment</td>
<td>Proportion of people visiting the natural environment several times</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Proportion of the population visiting the outdoors more than once a week in the last few years</td>
</tr>
<tr>
<td></td>
<td>Conservation volunteering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Index of total number of hours</td>
</tr>
<tr>
<td>11. Ease of access to local woodland, green space and countryside</td>
<td>Ease of access to a green space</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Per cent of population with access to 2ha of woodland within 500m. Per cent of population with access to 20ha of woodland within 4km</td>
</tr>
<tr>
<td>12. Environmental Quality and Health</td>
<td>Number of air pollution days classed as moderate or higher, urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Average number of pollution days</td>
</tr>
<tr>
<td></td>
<td>Number of air pollution days classed as moderate or higher, rural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Average number of pollution days</td>
</tr>
<tr>
<td></td>
<td>Mortality caused by anthropogenic air pollution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Percentage of mortality attributable to particulate air pollution</td>
</tr>
<tr>
<td></td>
<td>People affected by noise – complaints per 1000 people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Number of Complaints per 1000 people</td>
</tr>
<tr>
<td>13. International and EU</td>
<td>International and EU leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

# EEA State Of the Environment Report (SOER)

<table>
<thead>
<tr>
<th>Theme</th>
<th>S-10 year trends</th>
<th>20+ years outlook</th>
<th>Measurements re/d in summary presentation</th>
<th>Progress to policy targets</th>
<th>Summary statement on progress towards policy targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protecting, conserving and enhancing natural capital</td>
<td>Terrestrial and freshwater biodiversity</td>
<td>- Conservation status of species of European interest</td>
<td>Not on track to halting overall biodiversity loss (Biodiversity Strategy), but some more specific targets are being met.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Land use and soil functions</td>
<td>- Conservation status of habitats of European interest</td>
<td>- Land take</td>
<td>No target</td>
<td>The only non-binding objective is to arrive at ‘no net land take by 2050’, and to restore at least 15 % of degraded ecosystems by 2020.</td>
</tr>
<tr>
<td></td>
<td>Ecological status of freshwater bodies</td>
<td>- Proportion of classified river and lake water bodies in different River Basin Districts (RBD) holding less than good ecological status or potential</td>
<td>Only half of surface water bodies meet the 2013 target to achieve good status.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water quality and nutrient loading</td>
<td>- Changes in water quality variables during the last two decades - nitrate and phosphate</td>
<td></td>
<td></td>
<td>Although the Urban Waste Water Treatment Directive and the Nitrates Directive continue to deliver pollution control, diffuse nitrogen pollution remains problematic.</td>
</tr>
<tr>
<td></td>
<td>Air pollution and its ecosystem impacts</td>
<td>- EU-28 emission trends for the main air pollutants</td>
<td>- Concentrations of PM10 in 2012 at traffic, urban, industrial and rural sites</td>
<td>There has been mixed progress in meeting the EU’s 2010 interim environmental objectives for eutrophication and acidification.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Climate change impacts on ecosystems</td>
<td>- Key observed and projected impacts from climate change for the main regions in Europe</td>
<td>The EU 2013 Strategy and national strategies on climate change adaptation are being implemented, and mainstreaming of climate change adaptation in policies addressing biodiversity and ecosystems takes place to some extent.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resource efficiency and the low-carbon economy</td>
<td>Material resource efficiency and material use</td>
<td>- EU-27 domestic and raw material consumption</td>
<td>The targets in this area are currently qualitative in character.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste management</td>
<td>- Waste generation by production and consumption activities in European countries</td>
<td>Past successes with some waste streams, but only mixed progress across countries towards meeting recycling and landfill targets.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greenhouse gas emissions and climate change mitigation</td>
<td>- Greenhouse gas emission trends, projections and targets</td>
<td>The EU is on track to ‘over-deliver’ on its international and domestic 2020 targets, but is not on track towards its 2050 and 2060 targets.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy consumption and fossil fuel use</td>
<td>- Greenhouse gases sector trends and projections ‘with existing measures’</td>
<td>The EU is on track to meet its 20 % renewable energy target by 2020 and its 20 % energy efficiency target by 2030.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transport demand and related environmental impacts</td>
<td>- Progress of Member States towards 2020 climate and energy targets</td>
<td>Good progress to efficiency and short-term greenhouse gas targets but a significant distance remains toward longer-term policy objectives.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial pollution to air, soil and water</td>
<td>- Emissions of air pollutants and greenhouse gases and gross value added (GVA) from European industry (EEA-33)</td>
<td>Good progress in implementation of Best Available Techniques. Policy has been strengthened through the Industrial Emissions Directive, which remains to be fully implemented.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Water use and water quantity stress</td>
<td>- Water body status</td>
<td>Water scarcity and droughts continue to affect some European regions, impacting both economic sectors and freshwater ecosystems.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EEA Indicators – 34 core, 137 in total

Core Set

Exceedance of air quality limit values in urban areas (CSI 004)
Exposure of ecosystems to acidification, eutrophication and ozone (CSI 005)
Designated areas (CSI 008)
Species diversity (CSI 009)
Air Pollutant Emissions
Sulphur dioxide (SO2) emissions (APE 001)
Nitrogen oxides (NOx) emissions (APE 002)
Ammonia (NH3) emissions (APE 003)
Non-methane volatile organic compounds (NMVOC) emissions (APE 004)
Heavy metal emissions (APE 005)
Persistent organic pollutant (POP) emissions (APE 006)
Emissions of acidifying substances (CSO 001/APE 007)
Emissions of ozone precursors (CSI 002/APE 008)
Emissions of primary PM2.5 and PM10 particulate matter (CSI 003/APE 009)

Marine

Hazardous substances in marine organisms (MAR 001)
Trends in marine non-indigenous species (MAR 002)
Pathways of introduction of marine non-indigenous species (MAR 003)
Nutrients in transitional, coastal and marine waters (CSI 021/MAR 005)
Chlorophyll in transitional, coastal and marine waters (CSI 023/MAR 006)
Status of marine fish stocks (CSI 032/MAR 007)
Aquaculture production (CSI 033/MAR 008)
Fishing fleet pressure (CSI 034/MAR 009)

Climate state and impact

Global and European temperature (CSI 012/CLIM 001)
Mean precipitation (CLIM 002)
Precipitation extremes (CLIM 004)
Storms (CLIM 005)
Air pollution by ozone and health (CLIM 006)
Glaciers (CLIM 007)
Snow cover (CLIM 008)
Greenland ice sheet (CLIM 009)
Arctic and Baltic Sea ice (CLIM 010)
Permafrost (CLIM 011)
Global and European sea-level rise (CLIM 012)
Sea surface temperature (CLIM 013)
Phenology of marine species (CLIM 014)
Distribution of marine species (CLIM 015)
River flow (CLIM 016)
River floods (CLIM 017)
River flow drought (CLIM 018)
Water temperature (CLIM 019)
Lake and river ice cover (CLIM 020)
Distribution of plant species (CLIM 022)
Plant and fungi phenology (CLIM 023)
Distribution and abundance of animal species (CLIM 024)
Animal phenology (CLIM 025)
Species interactions (CLIM 026)
Soil organic carbon (CLIM 027/LSI 005)
Soil erosion (CLIM 028/LSI 006)
Soil moisture (CLIM 029/LSI 007)
Growing season for agricultural crops (CLIM 030)
Agrophenology (CLIM 031)
Water-limited crop productivity (CLIM 032)
Irrigation water requirement (CLIM 033)
Forest growth (CLIM 034)
Forest fires (CLIM 035)
Extreme temperatures and health (CLIM 036)
Vector-borne diseases (CLIM 037)
Damages from weather and climate-related events (CLIM 039)
Ocean acidification (CLIM 043)
Ocean heat content (CLIM 044)
Floods and health (CLIM 046)
Heating degree days (CLIM 047)
Production, sales and emissions of fluorinated greenhouse gases (F-gases) (CLIM 048)
Production and consumption of ozone depleting substances (CSI 006/CLIM 049)
Total greenhouse gas (GHG) emission trends and projections (CSI 010/CLIM 050)
Provisional greenhouse gas emission targets (CSI 011/CLIM 051)

Land and Soil

Use of freshwater resources (CSI 018/WAT 001)
Oxygen consuming substances in rivers (CSI 019/WAT 002)
Nutrients in freshwater (CSI 020/WAT 003)
Bathing water quality (CSI 022/WAT 004)
Urban water use treatment (CSI 024/WAT 005)

Water

Use of freshwater resources (CSI 018/WAT 001)
Oxygen consuming substances in rivers (CSI 019/WAT 002)
Nutrients in freshwater (CSI 020/WAT 003)
Bathing water quality (CSI 022/WAT 004)
Urban water use treatment (CSI 024/WAT 005)

Land take (CSI 014/LSI 001)
Progress in management of contaminated sites (CSI 015/LSI 003)

Streamlining European Biodiversity Indicators

Abundance and distribution of selected species (SEBI 001)
Red List Index for European species (SEBI 002)
Species of European interest (SEBI 003/CSI 007)
Ecosystem coverage (SEBI 004)
Habitats of European interest (SEBI 005)
Livestock genetic diversity (SEBI 006)
Nationally designated protected areas (SEBI 007)
Sites designated under the EU Habitats and Birds Directives (SEBI 008)
Critical load exceedance for nitrogen (SEBI 009)
Invasive alien species in Europe (SEBI 010)
Impact of climate change on bird populations (SEBI 011)
Marine trophic index of European seas (SEBI 012)
Impact of climate change on bird populations (SEBI 011)
Marine trophic index of European seas (SEBI 012)
Fragmentation of natural and semi-natural areas (SEBI 013)
Nutrients in transitional, coastal and marine waters (SEBI 015)
Freshwater quality (SEBI 016)
Forest: growing stock, increment and fellings (SEBI 017)
Forest: deadwood (SEBI 018)
Agriculture: nitrogen balance (SEBI 019)
Agriculture: area under management practices potentially supporting biodiversity (SEBI 020)
Fisheries: European commercial fish stocks (SEBI 021)
Aquaculture: effluent water quality from fish farms (SEBI 022)
Ecological footprint of European countries (SEBI 023)
Patent applications based on genetic resources (SEBI 024)
Financing biodiversity management (SEBI 025)
Public awareness (SEBI 026)

Transport & Environment Reporting

Transport final energy consumption by mode (TERM 001)
Transport emissions of greenhouse gases (TERM 002)
Transport emissions of air pollutants (TERM 003)
Exceedances of air quality objectives due to traffic (TERM 004)
Exposure to and annoyance by traffic noise (TERM 005)
Passenger transport demand (CSI 035/TERM 012)
Freight transport demand (CSI 036/TERM 013)
Capacity of infrastructure networks (TERM 018)
Transport infrastructure investments (TERM 019)
Real change in transport prices by mode (TERM 020)
Fuel prices (TERM 021)
Energy efficiency and specific CO2 emissions (TERM 027)
Specific air pollutant emissions (TERM 028)
Occupancy rates of passenger vehicles (TERM 029)
Load factors for freight transport (TERM 030)
Use of cleaner and alternative fuels (CSI 037/TERM 031)
Size of the vehicle fleet (TERM 032)
Average age of the vehicle fleet (TERM 033)
Proportion of vehicle fleet meeting certain emission standards (TERM 034)

Energy

Final energy consumption by sector and fuel (CSI 027/ENER 016)
Energy intensity (CSI 028/ENER 017)
Efficiency of conventional thermal electricity and heat production (ENER 019)
Final energy consumption intensity (ENER 021)
Primary energy consumption by fuel (CSI 029/ENER 026)
Share of renewable energy in gross final energy consumption (ENER 028)
Renewable energy in gross inland energy consumption (CSI 030/ENER 029)
Renewable electricity (CSI 031/ENER 030)
Overview of the European energy system (ENER 036)
Progress on energy efficiency in Europe (ENER 037)
Overview of the electricity production and use in Europe (ENER 038)

Sustainable Consumption and Production

Household expenditure on consumption categories with differing environmental pressure intensities (SCP 013)
Number of organisations with registered environmental management systems according to EMAS and ISO 14001 (SCP 033)

Waste Resource Efficiency

Emission intensity of agriculture in Europe (WREI 001)
Emission intensity of the domestic sector in Europe (WREI 002)
Emission intensity of manufacturing industries in Europe (WREI 003)

Waste

Waste electrical and electronic equipment (WST 003)
Waste generation (CSI 041/WST 004)
Natural Capital Committee & Corporate Natural Capital Accounts (CNCA)

Figure 3.3: CNCA supporting schedules

Natural capital asset register

Inventory of natural assets

For example
- Minerals
- Species
- Freshwater
- Soil, etc.

Measures of condition:
- Extent
- Quality
- Spatial config.

Accounting unit (land cover type)

Spatially distinct and additive

Physical flow account

- Food
- Fibre
- Water
- Recreation etc.

Measures of flows
- Quantity
- Quality

Monetary account

- Food
- Fibre
- Water
- Recreation etc.

Measured in £:
- Market values
- Social values

Natural capital maintenance activities

Maintenance cost schedule

ONS Natural Capital Accounts

- ONS are developing national natural capital accounts according to this roadmap to 2020

- They are developing 3 tiers of accounts
  - Cross-cutting/enabling accounts
  - Broad habitat accounts
  - Aggregate natural capital accounts

- To date they have developed
  - Land use and land cover cross-cutting account
  - Freshwater and woodland broad habitat accounts
  - Partial aggregate account
### ONS Natural Capital Accounts

#### Table 4: SEEA-EEA Land Cover Account, UK

<table>
<thead>
<tr>
<th>Opening stock 1998</th>
<th>Additions to stock</th>
<th>Reductions to stock</th>
<th>Net change</th>
<th>Closing stock 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban and associated developed areas</td>
<td>2,753</td>
<td>175</td>
<td>-104</td>
<td>71</td>
</tr>
<tr>
<td>Rainfed herbaceous crops</td>
<td>4,777</td>
<td>376</td>
<td>-879</td>
<td>-503**</td>
</tr>
<tr>
<td>Permanent crops</td>
<td>114</td>
<td>26</td>
<td>-88</td>
<td>-62*</td>
</tr>
<tr>
<td>Pastures</td>
<td>5,069</td>
<td>963</td>
<td>-669</td>
<td>295**</td>
</tr>
<tr>
<td>Semi-natural grassland</td>
<td>4,002</td>
<td>670</td>
<td>-515</td>
<td>155*</td>
</tr>
<tr>
<td>Broadleaved, mixed and yew woodland</td>
<td>1,367</td>
<td>137</td>
<td>-43</td>
<td>94**</td>
</tr>
<tr>
<td>Coniferous woodland</td>
<td>1,500</td>
<td>48</td>
<td>-125</td>
<td>-77</td>
</tr>
<tr>
<td>Shrubland, bushland, heathland</td>
<td>1,293</td>
<td>110</td>
<td>-91</td>
<td>19</td>
</tr>
<tr>
<td>Barren land/Sparingly vegetated areas</td>
<td>92</td>
<td>13</td>
<td>-8</td>
<td>5</td>
</tr>
<tr>
<td>Coastal margins</td>
<td>307</td>
<td>0</td>
<td>-</td>
<td>307</td>
</tr>
<tr>
<td>Economic Exclusion Zone (Excluding Territorial waters)</td>
<td>56,624</td>
<td>-</td>
<td>-</td>
<td>56,624</td>
</tr>
</tbody>
</table>


Notes:
1. Figures expressed in thousand hectares
2. ** Net change is significant at the 5% level
3. * Net change is significant at the 10% level

---

### Broad habitat account: Freshwater Ecosystem Assets and Services

#### Table 1 – Wetland ecosystems assets account (2008-2012)

<table>
<thead>
<tr>
<th>Ecosystem Extent</th>
<th>Characteristics of condition</th>
<th>Land cover</th>
<th>Wetland birds</th>
<th>Mean species richness</th>
<th>Mean nitrogen stock</th>
<th>Mean total nitrogen in soil</th>
<th>Mean carbon conc.</th>
<th>Accessible wetlands - population with access to wetlands within X kilometres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators</td>
<td>Units of measure</td>
<td>Size of area (hectares in 1000)</td>
<td>No. of wetland birds at inland wetland sites in the UK (1000)</td>
<td>Diversity of species per pond</td>
<td>Mean total nitrogen in soil (%) of dry soil</td>
<td>Mean level of carbon in soil (gram/kilogram)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Net change</td>
<td></td>
<td>0*</td>
<td>163</td>
<td>-5.4</td>
<td>-0.2</td>
<td>-17.2</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Year, 2012</td>
<td></td>
<td>2833²</td>
<td>4829</td>
<td>33.7</td>
<td>1.3</td>
<td>384.0</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

#### Table 2: Open water ecosystems assets account (2008-2012)

<table>
<thead>
<tr>
<th>Ecosystem Extent</th>
<th>Characteristics of condition</th>
<th>Land cover</th>
<th>Water</th>
<th>Ecological condition</th>
<th>Accessibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicators</td>
<td>Units of measure</td>
<td>Average number of reservoirs above or below mean normal capacity</td>
<td>Percentage of rivers recorded as normal and abnormal</td>
<td>Percentage of rivers and canals in high, moderate or bad ecological condition</td>
<td>Percentage of lakes in high, moderate or bad ecological condition</td>
</tr>
<tr>
<td>Mean values</td>
<td></td>
<td>19 / 12</td>
<td>47 / 53</td>
<td>2 / 50 / 4</td>
<td>6 / 44 / 3</td>
</tr>
<tr>
<td>Year 2008</td>
<td></td>
<td>331 (2007)²</td>
<td>21 / 10</td>
<td>26 / 74</td>
<td>2 / 46 / 2</td>
</tr>
<tr>
<td>Net change</td>
<td></td>
<td>2 / 2</td>
<td>21 / 21</td>
<td>0 / 40 / 0</td>
<td>0 / 21 / 5</td>
</tr>
<tr>
<td>Year, 2012</td>
<td></td>
<td>337</td>
<td>21 / 10</td>
<td>26 / 74</td>
<td>2 / 46 / 2</td>
</tr>
</tbody>
</table>

#### Table 6: UK freshwater non-monetary ecosystem services account (2008-2012)

<table>
<thead>
<tr>
<th>Freshwater ecosystems &amp; services</th>
<th>Units of measure</th>
<th>Provisioning services (tonnes)</th>
<th>Cultural services (m²)</th>
<th>Recreational visits (millions)</th>
<th>Educational visits (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisioning services(s)</td>
<td>Tonnes</td>
<td>UK</td>
<td>GB</td>
<td>UK</td>
<td>UK</td>
</tr>
<tr>
<td>Fish extraction</td>
<td>13,092</td>
<td>13,203</td>
<td>15,194</td>
<td>13,578</td>
<td>13,360</td>
</tr>
<tr>
<td>Water abstraction</td>
<td>12,311</td>
<td>10,890</td>
<td>9,950</td>
<td>12,377</td>
<td>12,377</td>
</tr>
<tr>
<td>Provisioning services(s)</td>
<td>572</td>
<td>568</td>
<td>621</td>
<td>462</td>
<td>428</td>
</tr>
<tr>
<td>Cultural services (m²)</td>
<td>349</td>
<td>344</td>
<td>393</td>
<td>310</td>
<td>310</td>
</tr>
<tr>
<td>Provisioning services(s)</td>
<td>56</td>
<td>57</td>
<td>57</td>
<td>46</td>
<td>46</td>
</tr>
</tbody>
</table>

Notes:
1) Provisioning services to open waters do not include figures for Northern Ireland.
2) Millions of cubic metres

#### Table 8: UK freshwater non-monetary ecosystem services account (2008-2012) Annual flow values (2012 prices)

<table>
<thead>
<tr>
<th>Freshwater ecosystem services (£ million)</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisioning services</td>
<td>44</td>
<td>8</td>
<td>14</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Water abstraction</td>
<td>803</td>
<td>482</td>
<td>664</td>
<td>988</td>
<td></td>
</tr>
<tr>
<td>Recreational visits</td>
<td>553</td>
<td>558</td>
<td>497</td>
<td>575</td>
<td></td>
</tr>
<tr>
<td>Educational visits</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1429</td>
<td>1092</td>
<td>1215</td>
<td>1636</td>
<td></td>
</tr>
</tbody>
</table>

Notes:
Local environmental planning
Environmental plans currently

There are a lot of different local environment-related plans, e.g.:
• River Basin Management Plans
• Catchment management plans
• Nitrate Vulnerable Zones
• Flood Risk Management Plans
• Catchment Flood Management Plans
• Shoreline Management Plans
• Strategic Flood Risk Assessments
• Local Flood Risk Management Strategies
• National Character Areas
• Nature Improvement Areas
• Local Nature Partnership plans
• Sites of Special Scientific Interest
• Special Protection Areas
• Special Areas of Conservation
• Areas of Outstanding Natural Beauty
• National Parks
• Local low emission zones
• ...

There are also other social and economic plans, e.g.:
• Local Enterprise Partnership plans
• Local Plans
• Neighbourhood plans
• Minerals Local Plans
• Health and Wellbeing Board strategies/plans
• ...

Note this analysis currently excludes marine planning
## Environmental plans currently – water quality and quantity

<table>
<thead>
<tr>
<th>Current plan</th>
<th>Type</th>
<th>Coverage</th>
<th>Legislative origin</th>
<th>Description</th>
<th>Lead organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>River Basin Management Plans</td>
<td>Action plan for an area</td>
<td>Everywhere</td>
<td>EU Water Framework Directive requires RBMP under Article 13, as detailed in Annex VII</td>
<td>River basin management plans (RBMP) set out measures to improve water in rivers, lakes, estuaries, coasts and in groundwater. One plan is produced for each of the 8 river basin districts covering England.</td>
<td>EA</td>
</tr>
<tr>
<td>Management Catchment plans</td>
<td>Action plan for an area</td>
<td>Everywhere</td>
<td>EU Water Framework Directive RBMP should contain (Annex VII part 8) “a register of any more detailed programmes and management plans…with a summary of their contents”</td>
<td>Each RBMP has an accompanying set of summary information for each catchment within the river basin district. There are 85 management catchments.</td>
<td>EA</td>
</tr>
<tr>
<td>Catchment Partnership plan</td>
<td>Action plan for an area</td>
<td>Everywhere</td>
<td>Defra’s non-statutory catchment based approach (see p9 of this). Defra currently funding 106 partnerships (see p1 of this).</td>
<td>Working at the catchment level, this partnership is a group that works with key stakeholders to agree and deliver the strategic priorities for the catchment and to support the Environment Agency in developing an appropriate River Basin Management Plan, required under the Water Framework Directive. Aims to coordinate with e.g. NIAs, LNP s, LEZs, CSF. Note issues highlighted in evaluation report Mar 2015.</td>
<td>Defra, to support EA. Funding post Mar 2015?</td>
</tr>
<tr>
<td>Nitrate Vulnerable Zones</td>
<td>Designation + controls</td>
<td>Cover large proportion of England</td>
<td>EU Nitrates Directive + The Nitrate Pollution Prevention Regulations 2015</td>
<td>A Nitrate Vulnerable Zone (NVZ) is designated where land drains and contributes to the nitrate found in “polluted” waters. Farms operating in NVZs must comply with specified operating requirements (e.g. for fertiliser application). Defra provides guidance. RPA checks through cross-compliance. EA enforces</td>
<td>Defra/EA/RPA</td>
</tr>
</tbody>
</table>
## Environmental plans currently – flood mgmt

<table>
<thead>
<tr>
<th>Current plan</th>
<th>Type</th>
<th>Coverage</th>
<th>Drivers</th>
<th>Purpose and scope of plan or strategy</th>
<th>Lead authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood Risk Management Plans (FRMPs)</td>
<td>Action plan for an area</td>
<td>Everywhere</td>
<td>Required under the European Floods Directive; implemented in England by the Flood Risk Regulations 2009. FRMPs for this first cycle of planning must be published by December 2015.</td>
<td>To manage the risk of flooding from rivers, the sea, reservoirs, surface water and groundwater. These may be separate plans for Flood Risk Areas that need to be co-ordinated across each river basin district in the whole of England.</td>
<td>Lead Local Flood Authorities for flooding from surface water, groundwater and ordinary watercourses. Environment Agency for flooding from main rivers, the sea and reservoirs. All Lead Local Flood Authorities must prepare a Local Flood Risk Management Strategy.</td>
</tr>
<tr>
<td>Local Flood Risk Management Strategy</td>
<td>Strategy</td>
<td>Everywhere</td>
<td>Statutory requirement under the Flood and Water Management Act 2010.</td>
<td>To manage local flood risk in each Lead Local Flood Authority across the whole of England. These also include objectives and measures for the management of local flood risk (i.e. from surface water, groundwater and ordinary watercourses).</td>
<td>All Lead Local Flood Authorities must prepare a Local Flood Risk Management Strategy.</td>
</tr>
<tr>
<td>Surface Water Management Plans (SWMPs)</td>
<td>Action plan for an area</td>
<td>Everywhere</td>
<td>Voluntary plans for co-ordinated measures to manage surface water flooding.</td>
<td>To establish preferred approach to managing surface water flooding.</td>
<td>Likely to be Lead Local Flood Authorities, in partnership with others.</td>
</tr>
<tr>
<td>Other river, estuary and coastal investment strategies</td>
<td>Action plan for an area</td>
<td>Potentially anywhere</td>
<td>Voluntary plans.</td>
<td>Outline investment proposals for flood and coastal erosion risk management. Prepared to support an investment proposal for funding.</td>
<td>Operating authorities.</td>
</tr>
<tr>
<td>Water Level Management Plans (WLMPs)</td>
<td>Action plan for an area</td>
<td>Where water level is managed e.g. drainage board areas</td>
<td>Voluntary plans.</td>
<td>Approach to managing water levels in environmentally sensitive areas. These plans are developed to enable agreement between different users of water.</td>
<td>Drainage Boards, other operating authorities and land owners</td>
</tr>
<tr>
<td>Reservoir Flood Plans</td>
<td>Action plan for an area</td>
<td>Where there are reservoirs</td>
<td>Voluntary plans.</td>
<td>These include on-site and off-site flood plans that set out procedures for the management of flood risk in the event of an emergency. On-site plans deal with the management of the on-site risk and off-site plans deal with the risk in areas adjacent to the reservoir.</td>
<td>On-site Flood Plans are developed by the owners of the reservoir. Off-site Flood Plans are developed by the Local Resilience Forums.</td>
</tr>
<tr>
<td>Long-Term Investment Strategy</td>
<td>Strategy</td>
<td>Potentially anywhere</td>
<td>Voluntary plans.</td>
<td>Long-term strategic assessment of funding scenarios for flood and coastal erosion risk management. This evidence is used to support government’s decision making on funding as part of periodic spending reviews.</td>
<td>Environment Agency.</td>
</tr>
</tbody>
</table>
# Environmental plans currently – biodiversity/species/habitats

<table>
<thead>
<tr>
<th>Current plan</th>
<th>Type</th>
<th>Coverage</th>
<th>Legislative origin</th>
<th>Description</th>
<th>Lead organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Character Area</td>
<td>Descriptive data</td>
<td>Everywhere</td>
<td>NE initiative</td>
<td>NCAs divide England into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity, history, and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries. Can inform e.g. planning, sensitivity and capacity studies, land management</td>
<td>NE</td>
</tr>
<tr>
<td>Sites of Special Scientific Interest</td>
<td>Designation + controls</td>
<td>Widely distributed</td>
<td>Wildlife and Countryside Act 1981 Part II</td>
<td>Sites of special scientific interest are protected by law to preserve their special wildlife or geology. There are certain things you can’t do on SSSI land without permission from Natural England. These could include ploughing the land or removing plants.</td>
<td>NE</td>
</tr>
<tr>
<td>Special Protection Areas</td>
<td>Designation + controls</td>
<td>Widely distributed</td>
<td>EC Birds Directive Article 4 + The Conservation (Natural Habitats, &amp;c.) Regulations 1994 (as amended)</td>
<td>Special Protection Areas (SPAs) are strictly protected sites classified in accordance with Article 4 of the EC Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.</td>
<td>NE</td>
</tr>
<tr>
<td>Special Areas of Conservation</td>
<td>Designation + controls</td>
<td>Widely distributed</td>
<td>EC Habitats Directive Article 3 + The Conservation (Natural Habitats, &amp;c.) Regulations 1994 (as amended)</td>
<td>Special Areas of Conservation (SACs) are strictly protected sites designated under the EC Habitats Directive. Article 3 of the Habitats Directive requires the establishment of a European network of important high-quality conservation sites.</td>
<td>NE</td>
</tr>
<tr>
<td>Ramsar sites</td>
<td>Designation + controls</td>
<td>Widely distributed, typically coastal</td>
<td>Ramsar Convention/ Wildlife and Countryside Act 1981 s37A</td>
<td>The UK has generally chosen to underpin the designation of its Ramsar sites through prior notification of these areas as Sites of Special Scientific Interest (SSSIs)...these receive statutory protection under the Wildlife &amp; Countryside Act 1981(as amended)... Government have issued policy statements relating to the special status of Ramsar sites. This extends the same protection at a policy level to listed Ramsar sites in respect of new development as that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the EU Natura 2000 network.</td>
<td>NE</td>
</tr>
<tr>
<td>National Nature Reserves</td>
<td>Designation + controls</td>
<td>224 widely distributed</td>
<td>Wildlife and Countryside Act 1981 s35</td>
<td>There are 224 reserves in England covering 94,000 hectares. Natural England manages 143 of these on its own or jointly with other organisations. The rest are managed by approved bodies, such as the National Trust, the Royal Society for the Protection of Birds and the Wildlife Trusts.</td>
<td>NE/approved bodies</td>
</tr>
<tr>
<td>Local Nature Partnership plan</td>
<td>Action plan for an area</td>
<td>Everywhere</td>
<td>Natural Environment White Paper commitment</td>
<td>The ambition for LNPs is that they will help their local area to manage the natural environment as a system and to embed its value in local decisions for the benefit of nature, people and the economy. To do this effectively they will need to be self-sustaining strategic partnerships of a broad range of local organisations, businesses and people with the credibility to work with, and influence, other local strategic decision makers.</td>
<td>Defra/ NE</td>
</tr>
<tr>
<td>Nature Improvement Area plan</td>
<td>Action plan for an area</td>
<td>Specific areas only</td>
<td>Natural Environment White Paper commitment</td>
<td>Nature Improvement Areas (NIA) have been established to create joined up and resilient ecological networks at a landscape scale. They are run by partnerships of local authorities, local communities and landowners, the private sector and conservation organisations with funding provided by the Department for the Environment, Food and Rural Affairs (Defra) and Natural England. The 12</td>
<td>Defra/ NE. Funding ended Mar 15</td>
</tr>
</tbody>
</table>
## Environmental plans currently – biodiversity/species/habitats cont.

<table>
<thead>
<tr>
<th>Current plan</th>
<th>Type</th>
<th>Coverage</th>
<th>Legislative origin</th>
<th>Description</th>
<th>Lead organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Nature Reserves</td>
<td>Designation</td>
<td>Widely distributed</td>
<td>National Parks and Access to the Countryside Act 1949</td>
<td>Places with wildlife or geological features of special interest locally. They offer people the chance to study nature, or simply to enjoy it. They are designated by local authorities.</td>
<td>LAs/ NE</td>
</tr>
<tr>
<td>Local (wildlife) Sites</td>
<td>Designation</td>
<td>Widely distributed</td>
<td>Not legally protected</td>
<td>Local Sites are sites of local importance for nature conservation but are not legally protected. Local Geological Sites are usually selected by voluntary geoconservation groups. Local Wildlife Sites are usually selected by the relevant Wildlife Trust, along with representatives of the local authority and other local wildlife conservation groups.</td>
<td>LAs keep track of locations</td>
</tr>
<tr>
<td>UNESCO biosphere reserves</td>
<td>Designation</td>
<td>2 sites</td>
<td>May be protected via other designations e.g. SPA/SAC</td>
<td>The United Nations Educational, Scientific and Cultural Organization (UNESCO) Man and the Biosphere programme is an intergovernmental science programme focused on sustainable development. Sites in England are North Devon and Brighton &amp; Lewes Down</td>
<td>UK Man &amp; the Biosphere Committee</td>
</tr>
<tr>
<td>Global Geoparks (UNESCO endorsed)</td>
<td>Designation</td>
<td>2 sites</td>
<td>Voluntary – recognised by UNESCO</td>
<td>The UK has 6 geoparks that are members of the global network, including 2 in England: North Pennines Geopark, English Riviera Geopark. Tourism focus.</td>
<td>Public and private pshp including NE</td>
</tr>
<tr>
<td>UNESCO natural world heritage sites</td>
<td>Designation</td>
<td>Several nationally</td>
<td>Recognised through World Heritage Convention</td>
<td>The UK has a number of natural World Heritage Sites, including England’s Dorset and East Devon Coast, also known as the Jurassic Coast.</td>
<td>Public and private pshp including NE, AONBs</td>
</tr>
<tr>
<td>Forest plans</td>
<td>Action plan for an area</td>
<td>Widely distributed</td>
<td>Forestry Act 1967</td>
<td>Forest Plans define the long term vision for woodlands that FC manage, usually looking 50 to 100 years ahead. It sets objectives and illustrates how management will move towards achieving this vision over the initial 10 to 30 years.</td>
<td>Forestry Commission</td>
</tr>
<tr>
<td>Biodiversity action plans / Biodiversity opportunity maps</td>
<td>Action plan for an area</td>
<td>Widely distributed</td>
<td>UK response to Rio Convention on Biological Diversity (CBD) 1992</td>
<td>The UK was the first country to produce a national biodiversity action plan, and the UK BAP described the biological resources of the UK and provided detailed plans for conservation of these resources. Action plans for the most threatened species and habitats were set out to aid recovery, and national reports, produced every three- to five-years, showed how the UK BAP was contributing to the UK’s progress towards the significant reduction of biodiversity loss called for by the CBD. The ‘UK Post-2010 Biodiversity Framework’, published in July 2012, succeeds the UK BAP and ‘Conserving Biodiversity – the UK Approach’, and is the result of a change in strategic thinking following the publication of the CBD’s ‘Strategic Plan for Biodiversity 2011–2020’ and its 20 ‘Aichi Biodiversity Targets’, at Nagoya, Japan in October 2010, and the launch of the new EU Biodiversity Strategy (EUBS) in May 2011.</td>
<td>Biodiversity Action Groups (pre-2012?)</td>
</tr>
<tr>
<td>Biodiversity-related plans in local planning inc. planning</td>
<td>Action plan for an area</td>
<td>Everywhere</td>
<td>Natural Environment and Rural Communities Act 2006 Section 40/ National Planning Policy</td>
<td>NERC 2006 s.40 places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity. The National Planning Policy Framework is clear that pursuing sustainable development includes moving from a net loss of biodiversity to achieving net gains for nature, and that a core principle for planning is that it should ensure that development is consistent with the conservation of biodiversity.</td>
<td>LAs/ NE</td>
</tr>
</tbody>
</table>
### Environmental plans currently – access to land/landscape/nature

<table>
<thead>
<tr>
<th>Current plan</th>
<th>Type</th>
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<th>Description</th>
<th>Lead organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common land &amp; town and village greens</td>
<td>Designation + rights/reqs</td>
<td>Widely distributed</td>
<td>Commons Registration Act 1965</td>
<td>You have the ‘right to roam’ on registered common land - you may use town or village greens for ‘lawful sports and pastimes’, eg playing football or walking your dog. Find out where your local common land or village green is by contacting your local council. It keeps the ‘Register of Common Land and Village Greens’ for your area.</td>
<td>LAs</td>
</tr>
<tr>
<td>Open access land</td>
<td>Designation + rights/reqs</td>
<td>Widely distributed</td>
<td>Countryside Rights of Way Act 2000</td>
<td>CROW Act normally gives a public right of access to land mapped as ‘open country’ (mountain, moor, heath and down) or registered common land. These areas are known as ‘open access land’. NE provides national mapping.</td>
<td>NE</td>
</tr>
<tr>
<td>Area of Outstanding Natural Beauty management plan</td>
<td>Action plan for an area</td>
<td>Specific areas only – 46 through England, Wales and NI</td>
<td>Countryside and Rights of Way Act 2000 s82-93. s89 must produce AONB mgmt plan and review every 5 years. Purpose of conserving and enhancing natural beauty + public understanding and enjoyment. Public bodies must “have regard to”</td>
<td>It requires that a management plan be produced for each AONB. The duty falls to local authorities, which must act jointly to produce the plan. In most cases the AONB Partnerships produces the Management Plan on behalf of the relevant local authority. Once adopted and published, the management plan must be revised at intervals not exceeding five years. The Act states that the purpose of the management plan is to formulate the polices of local authorities for the management of the Area of Outstanding Natural Beauty and for the carrying out of their functions in relation to it.</td>
<td>LAs, AONBs overseen by Natural England in England. Defra funded.</td>
</tr>
<tr>
<td>National Park plans</td>
<td>Action plan for an area</td>
<td>Specific areas only</td>
<td>National Parks and Access to Countryside Act 1949, Countryside Act 1968, Environment Act 1995, NERC 2006</td>
<td>Each National Park is administered by its own National Park Authority. They are independent bodies funded by central government to: conserve and enhance the natural beauty, wildlife and cultural heritage; and promote opportunities for the understanding and enjoyment of the special qualities of National Parks by the public. If there's a conflict between these two purposes, conservation takes priority. In carrying out these aims, National Park Authorities are also required to seek to foster the economic and social well-being of local communities within the National Park.</td>
<td>Defra</td>
</tr>
</tbody>
</table>
Environmental plans currently – Air quality. Countryside Stewardship.

<table>
<thead>
<tr>
<th>Current plan</th>
<th>Type</th>
<th>Coverage</th>
<th>Legislative origin</th>
<th>Description</th>
<th>Lead organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Quality Management Area plan</td>
<td>Action plan for an area</td>
<td>Specific areas only</td>
<td>EU Air Quality Framework Directive + Environment Act 1995</td>
<td>Local authorities are responsible for reviewing and assessing air quality, to check they meet national air quality objectives. If they are falling short, they must declare an Air Quality Management Area and produce an action plan showing what they are going to do to meet standards. [could include setting up low emission zones for example]</td>
<td>LAs</td>
</tr>
<tr>
<td>Smoke control areas</td>
<td>Designation + controls</td>
<td>Specific areas only</td>
<td>Clean Air Act 1993</td>
<td>The Clean Air Act aims to reduce pollution from smoke, grit and dust. It gives local authorities powers to designate Smoke Control Areas, where it’s an offence to emit smoke from a chimney unless using an approved fireplace or fuel.</td>
<td>LAs</td>
</tr>
<tr>
<td>Areas receiving Countryside/Environmental Stewardship payments</td>
<td>Funding with mgmt reqs attached</td>
<td>Widely distributed</td>
<td>European CAP funding</td>
<td>See <a href="http://magic.defra.gov.uk/MagicMap.aspx">http://magic.defra.gov.uk/MagicMap.aspx</a>. Large proportion of land is covered by some form of stewardship scheme. Environmental Stewardship is being replaced by Countryside Stewardship in 2015.</td>
<td>NE/ FC/ RPA/ Defra</td>
</tr>
</tbody>
</table>
There are various online mapping systems, covering various datasets

For example:

- [www.magic.gov.uk](http://www.magic.gov.uk)
- [http://new.surreycc.gov.uk/maps/surrey-interactive-map](http://new.surreycc.gov.uk/maps/surrey-interactive-map) - probably many (100s?) of local authority mapping systems
Surrey’s interactive map
Smarter Environmental Legislation

Annexes
- Implications for EU reform
- Outline benefits map
- Stakeholder engagement method
- Duties and duty of care
- Reform case studies
- Environmental assessment
- Local environmental planning
- Case study: fwk for natural environment

Magic.gov.uk

Local environmental planning

Outline benefits map

Stakeholder engagement method

Duties and duty of care

Reform case studies

Environmental assessment

Case study: fwk for natural environment

Smarter Environmental Legislation
Transforming local environmental planning

• At present, prioritisation of social, economic and environmental objectives happens at different levels of government depending on the policy issue. For example:
  – Nitrate Vulnerable Zones are put in place by national government and regulated by a national regulator (EA). Farmers have to comply with NVZ requirements irrespective of the impact on economic or social outcomes.
  – SSSIs/SPAs/SACs are put in place by national government and regulated by a national regulator (NE). Landowners have to comply with SSSI/SPA/SAC requirements irrespective of the impact on economic or social outcomes.
  – Water quality objectives from Water Framework Directive apply nationally and actions to achieve them are being led by the EA. There is some flexibility in whether ‘good’ status has to be achieved, that takes into account economic impact.
  – National parks have been designated by national government, have control of local development that would otherwise lie with local authorities, and apply the Sandford Principle within their bounds: "If it appears that there is a conflict between [conservation and public enjoyment], [the National Park Authority] shall attach greater weight to the purpose of conserving and enhancing the natural beauty, wildlife and cultural heritage of the area“ (Environment Act 1995)
  – National air quality objectives from the EU Ambient Air Quality Directive are reflected in a national air quality strategy from Defra and also local air quality management plans created by local authorities where objectives are not being met. Local and national transport policy is also key. However, the EAC has argued “There is some confusion over the boundary of local and central government responsibilities for air quality. That confusion is exacerbated by an unresolved debate over the localism agenda and how that impinges on action on air quality.”
  – The National Planning Policy Framework explains principles for whether or not local authorities should permit new developments, under an overarching “presumption in favour of sustainable development” (NPPF para 14)
### Transforming local environmental planning

#### Phase 1

Require that all spatial information (e.g. protected habitats and species area designations, water protection zones, planning designations, flood risk management zones) is held in a single open online map, which can be used by all stakeholders to inform environmental planning.

#### Phase 2

Option 1 + Require existing public bodies involved in local environmental planning to work together (public body duty to cooperate?) to produce a single environmental action plan for their area. This could encompass e.g. air quality, water quality and quantity, flood risk management, biodiversity objectives. Would need to work through area covered and reporting cycles to make this practicable. Need to ensure policy-area ‘chapters’ meet EU requirements.

Introduce duty to cooperate for businesses (what does this mean for each of the objectives discussed above?)

#### Phase 3

Option 1 + 2 + Clarify/ reform/ consolidate duties of public bodies responsible for local environmental planning according to some consistent (to be defined) principles, so that responsibilities for achieving overarching national environmental objectives, and guidance on whether/ how to prioritise against other societal objectives, are clearly assigned to appropriate local/ regional/ national level.
Comparison of framework and existing natural environment legislation
What environment-related legislation is on DefraLex (817 items)?

- Water (14)
- Water in the environment (28)
- Atmospheric pollution (14)
- Atmospheric emissions (31)
- Contaminated land (3)
- Environmental regulation e.g. civil sanctions, permitting (102)
- Control of pollution (19)
- Pollution prevention & control (7)
- Control of products e.g. pesticides, REACH (46)
- Chemicals (1)
- Designated areas e.g. AONB, SSSI, national parks (44)
- Countryside access (39)
- Common land (31)
- Planning (13)
- EIA (12)
- Habitats and species (13)
- Conservation of habitats and species (4)
- Wildlife and countryside (37)
- Agri-environment (20)
- Weeds (2)
- Alien species (2)

- Noise and nuisance (17)
- COMAH (2)
- Waste management (51)
- Landfill (1)
- Littering (27)
- Waste collection and disposal (11)
- Waste in agriculture (2)
- Water industry (37)
- Water supply (35)
- Water authorities (6)
- Water and sewerage (3)
- Water treatment (2)
- Flooding and coastal protection (106)
- Waterways (8)
- Inland waterways (4)
- Endangered species/trade (8)
- Not assigned (11)
- Extractive industries (2)
- Pets (1)
- Anti-pollution works (1)
Oil storage – as is

- **Water Resources Act 1991**
  - 92 and 219(2): SoS may make regulations to prevent water pollution and confer powers on EA

- **Environmental Permitting (England and Wales) Regs 2010**
  - 12(1)(b): Must not cause or knowingly permit a water discharge activity or groundwater activity without a permit
  - 38(2): To contravene 12(1) is an offence

- **The Control of Pollution (Oil Storage) (England) Regulations 2001**
  1) Title, commencement, England only, definitions of container, drum, fixed tank, oil, secondary containment system
  2) Regs apply to storage of oil on any premises except for waste oil, storage in a building, underground, smaller tanks, on private dwellings, places refining oil, oil distribution places, on any farm for use in agriculture
  3) General requirements: strong enough container, in containment system, situation of vents etc, fill pipes, drum containment system
  4) Fixed tank requirements: properly supported...minimise risk of damage from impact as far as reasonably possible...etc
  5) Mobile bowser requirements: Lockable tap/valve, pipe and pump features
  6) Transitional provisions for gradual introduction of requirements
  7) EA may issue notices to minimise pollution risk in transitional cases, requiring works to be done
  8) Right of appeal in transitional cases
  9) Contravention of any provisions of (3)-(5) is an offence, liable to (summary conviction) statutory max fine (£5000) or (conviction on indictment) a fine
  10) EA may use civil sanctions: fixed monetary penalty, variable monetary penalty, restoration notice or stop notice, accept an enforcement undertaking

**If** duty of care means that a regulator can intervene to tell you to take reasonable measures to prevent harm and apply sanctions if you don’t, then on the face of it interventions enabled by these regulations could be replicated in a duty of care + code of practice model (notwithstanding question about sanctions below)

Who would the code of practice be aimed at? Anyone with an oil tank? How does a business know which code applies to it, to reflect current applicability?

The code of practice would contain the requirements (or similar) from clauses 3 - 5

These specific transitional arrangements are no longer relevant. However, how would transitional arrangements for changes to codes of practice work in the new system?

Could failure to meet the terms of the code (or equivalent) be an offence with a fine, so the sanction is as strong as at present?

In future, the offences and penalties would be drawn together in one place to make them easier to understand

The current guidance on gov.uk (pdf from 2001) explains the offence to discharge includes oil spills, though references Water Resources Act 91 rather than EPR 2010 as location of this duty
Oil storage – proposed

<table>
<thead>
<tr>
<th>Central framework act</th>
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<tbody>
<tr>
<td><strong>Objectives</strong></td>
</tr>
<tr>
<td>Environment Committee</td>
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<tr>
<td>Regulatory body</td>
</tr>
<tr>
<td><strong>Duty of care</strong></td>
</tr>
<tr>
<td>Duty to cooperate</td>
</tr>
<tr>
<td><strong>General binding rules</strong></td>
</tr>
<tr>
<td>Fwk for regulatory system</td>
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<tr>
<th>Supporting secondary legislation</th>
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<tr>
<td>Protected species and habitats</td>
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<tr>
<td>Activities requiring registration</td>
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<td>Activities requiring permits</td>
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<tr>
<td>Product standards</td>
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<tr>
<th>Material outside legislation</th>
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<tbody>
<tr>
<td><strong>(Approved) codes of practice</strong></td>
</tr>
<tr>
<td>Official maps/designations</td>
</tr>
</tbody>
</table>

Relevant overall government objective is to achieve good water status in the environment.

Compliance with duty to take reasonable steps can be assured by Regulator, and sanctions applied if reasonable steps (i.e. compliance with code of practice or demonstration of equivalent or better controls) are not being taken.

‘Must not cause or knowingly permit a water discharge activity or groundwater activity without a permit’ becomes a general binding rule.

Code of practice for oil storage could be formally approved by government.

(Approved) code of practice for oil storage describes what ‘reasonable steps to avoid harm’ are for oil storage.
Overall, the nitrates regulation appears to be of a form that could be fulfilled by a DoC/COP model (i.e. just environmental protection objective, specification requirements that could be in principle be in a COP). Could our model accommodate making COP mandatory in some areas/circumstances? Do these specifics have to be in regulation?

**The Nitrates Pollution Prevention Regulations 2015**

- **P1 Introductory** 1. Citation, commencement and application; 2. Interpretation
- **P2 Nitrate vulnerable zones** 3. Designation; 4. Review; 5. Recommendations and proposals; 6. Appeal
- **P3 Limiting the application of organic manure** 7. Application of livestock manure: total nitrogen limit for the whole holding; 8. Spreading organic manure: nitrogen limits per hectare
- **P4 Crop requirements** 9. Exclusion for crops in greenhouses; 10. Planning the spreading of nitrogen fertiliser; 11. Additional information to be recorded; 12. Total nitrogen spread on a holding; 13. Grass grown for dehydration or for chlorophyll production; 14. Calculating the amount of nitrogen available for crop uptake from organic manure
- **P7 Calculation and records** 26. Annual records relating to storage; 27. Record of nitrogen produced by animals on the holding; 28. Livestock manure brought on to or sent off the holding; 29. Sampling and analysis; 30. Records of crops sown; 31. Records of spreading nitrogen fertiliser; 32. Subsequent records; 33. FACTS advice; 34. Keeping records up to date; 35. Duration of records
- **P8 Derogation** 36. Application; 37. Determination of application; 38. Appeal
- **P9 Review** 39. Review; 40. Regulatory review
- **P10 Enforcement** 41. Offence and penalty; 42. Civil sanctions; 43. Enforcement
- **P11 Revocations** 44. Revocation of consolidated provisions

**European Communities Act 1972**
- Section 2(2): Minister can make regulations to implement EU obligations of UK

**EU ‘Nitrates Directive’ 91/676/EEC**
- Requires code of good environmental practice, which is mandatory in NVZ

**Applies in England. Various definitions, including ‘polluted water’ = > 50mg/l nitrates, or would be eutrophic**

**Nitrate Vulnerable Zones are designated on a map. SoS must monitor eutrophic state and nitrate concentration and revise or add to NVZs every 4 years. EA to advise. SoS must notify those affected by changes, who can appeal via First Tier Tribunal.**

**Max nitrogen in various forms that can be applied in kg/ha**

**Requirements to create a fertilisation plan including calculation of permitted nitrogen application depending on crop type**

**Requirements to create and maintain a risk map; under what conditions, when, where and how fertiliser may be spread**

**Requirements for how, where and for how long different kinds of organic manure can be stored**

**Requirements for keeping records of production, movement and use of fertiliser**

**Occupier can apply to Agency for derogation if 80% or more of holding is sown with grass. EA shall decide. Occupier can appeal to a panel.**

**SoS must monitor and review effectiveness in preventing water pollution, and review the regulations with regard to how other member states implement**

**Breaching a provision of these regulations is an offence. Person guilty of an offence is liable to a fine. Offences of body corporate.**
## Nitrates – proposed

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<th>Central framework act</th>
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<tr>
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<tr>
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- Relevant overall government objective is to achieve good water status in the environment.
- Compliance with duty to take reasonable steps can be assured by Regulator, and sanctions applied if reasonable steps (i.e. compliance with code of practice or demonstration of equivalent or better controls) are not being taken.
- Would duty to cooperate have a particular function for nitrates management?
- Make nitrates use an activity requiring a permit IF in NVZ, and make compliance with COP a mandatory requirement of permit?
- Code of practice for nitrate management would need to be formally approved by government if it can be made mandatory.
- Approved code of practice for nitrate management describes what ‘reasonable steps to avoid harm’ are.
- Designations include NVZs.

**Nitrates**

– proposed

Approved code of practice for nitrate management describes what ‘reasonable steps to avoid harm’ are.

Designations include NVZs.

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Approved code of practice for nitrate management describes what ‘reasonable steps to avoid harm’ are.

Designations include NVZs.
Protection of birds – as is

From gov.uk guidance:
You’re breaking the law if you:
• intentionally kill, injure or take wild birds
• intentionally take, damage or destroy a wild bird’s nest while it’s being used or built
• intentionally take or destroy a wild bird’s egg
• possess, control or transport live or dead wild birds, or parts of them, or their eggs
• sell wild birds or put them on display for sale
• use prohibited methods to kill or take wild birds

Some birds, known as ‘schedule 1 birds’, like barn owls have extra legal protection. For these bird species it’s also an offence to do the following, either intentionally or by not taking enough care:
• disturb them while they’re nesting, building a nest, in a nest that contains their young, or near it
• disturb their dependent young

You could be sent to prison for up to 6 months and be fined £5,000 for each offence if you’re found guilty.

It’s sometimes legal to hunt some species of bird, such as game birds. If wild birds are causing you problems, there are ways to deal with them legally. If you intend to kill or take wild birds, take eggs or nests or disturb specially protected birds, you need a licence from Natural England, Scottish Natural Heritage or the Countryside Council for Wales, depending on where the activity is intended to take place.

Wild birds can only be killed or, along with eggs or nests, taken in order to:
• prevent serious damage to livestock, crops, fruit, vegetables, fisheries etc
• prevent the spread of disease
• preserve air safety
• conserve wild birds
• preserve public health or safety

Traps, nets, snares etc that are normally prohibited for killing or taking birds may be used under licence.

Specially protected birds can only be disturbed in order to:
• preserve public health or safety
• monitor or ring them for scientific, research or conservation purposes
• photograph or film them

These seem like general binding rules. For wild birds generally you are breaking the law if you intentionally harm; for schedule 1 birds it is intentionally or not taking enough care to avoid harm.

So would a general duty of care for the environment that included harm to birds be stronger or weaker than these rules?
Protection of birds – proposed

**Central framework act**
- Objectives
- Environment Committee
- Regulatory body
- Duty of care
- Duty to cooperate
- General binding rules
- Fwk for regulatory system

**Supporting secondary legislation**
- Protected species and habitats
- Activities requiring registration
- Activities requiring permits
- Product standards

**Material outside legislation**
- (Approved) codes of practice
- Official maps/designations

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**Relevant overall government objective is to achieve good biodiversity status (TBD)**

**Duty of care requires that reasonable steps are taken to avoid harm to wild birds**

**General duties to not kill etc wild birds, and not disturb etc protected birds, are general binding rules**

**Currently these lists are spread across Wildlife and Countryside Act and Conservation of Habitats and Species Regs**

**Disturbing/harming etc wild birds becomes an activity that requires a permit**

**COPs would reflect ‘reasonable steps’ for activities that affect birds e.g. hedge mgmt**

**Include designation of Special Protected Areas**
Heather and grass burning – as is

The SoS power given by HFA 46 appears to be to regulate heather etc burning, without explaining to what end – so can include environmental, health and safety, nuisance and other objectives.

Hill Farming Act 1946

20(1) SoS has power to regulate heather etc burning
20(2) Offence to not meet regulations, and applicable sanctions

Hill Farming Act 1985
Wildlife & Countryside Act 1981
Criminal Justice Act 1982

Amend HFA 46 to modify sanctions and use standard fine scale

In future, the offences and penalties would be drawn together in one place to make them easier to understand. In this case, it is quite difficult to work out what the offence and sanctions are as they are in a different piece of legislation from the regulation.

The SoS power given by HFA 46 appears to be to regulate heather etc burning, without explaining to what end – so can include environmental, health and safety, nuisance and other objectives.

The Heather and Grass etc Burning (England) Regs 2007

1) Title, commencement, England only
2) Define burning notice, burning season, types of vegetation/land
3) Regs do not apply to private gardens and allotments
4) Part of regs do not apply to railway land
5) Requirements for permitted burning: time of day, sufficient controls, protect adjacent land/people/things
6) Requirements for burning without licence: in burning season, slope, area, soil exposure, leaving smouldering
7) NE can issue licence to allow otherwise prohibited burning: only allowed to conserve/enhance/manage nat env or for safety
8) If you do prohibited burn NE can require they are notified of any future burn via a ‘burning notice’
9) You can make representations against a burning notice
10) Amends farming cross-compliance regs to include some (but not all?) requirements of this regulation
11) Revokes 1986 and 1987 heather and grass etc regulations

For the environmental protection elements of this regulation, if the regulator can apply sanctions for not complying with code of practice or demonstrating equivalent care, then I think you could broadly replicate requirements and sanctions in a DoC/COP model. However, how do we deal with non-environmental objectives included here?

Who would the code of practice be aimed at?
Only part of this regulation appears to apply to farmers, via clause 10 modifying cross compliance regs. How does a business know which code applies to it, to reflect current applicability?

Some of these requirements in (5) and (6) relate directly to environmental impact on e.g. birds, soil, so could logically sit in an environmental code of practice. However others appear to be for health and safety, reducing nuisance or property protection. Should those requirements be transferred e.g. into H&S law/guidance? Are they duplicative of existing duties?

The ability for NE to issue a licence to undertake otherwise prohibited activity is consistent with requiring a licence for activities that would otherwise contravene duty of care for environment.

This is like a general requirement to notify the regulator of activity, except you only have to do it if NE tells you to, which makes the rules more complicated.

### Heather and grass burning – proposed

**Central framework act**
- Objectives
- Environment Committee
- Regulatory body
- Duty of care
- Duty to cooperate
- General binding rules
- Fwk for regulatory system

**Supporting secondary legislation**
- Protected species and habitats
- Activities requiring registration
- Activities requiring permits
- Product standards

**Material outside legislation**
- (Approved) codes of practice
- Official maps/designations

**Relevant overall government objectives**
- To achieve good biodiversity, soil, air, water status

**Duty of care**
- Requires that reasonable steps are taken to avoid harm to species and habitats

**Question: should rule now be that burning is not permitted, unless you have a permit?**

**Burning becomes an activity that requires a permit**

**Complying with grass burning COP could be a mandatory requirement if you are granted a burning permit?**

**Question: How do we address non-environmental aspects of current legislation e.g. nuisance and H&S?**
### Injurious weeds – as is

#### Weeds Act 1959

1. Power to require occupier to prevent spreading of injurious weeds by serving a notice to control them. Injurious weeds are: spear thistle, creeping or field thistle, broad-leaved dock, curly dock, ragwort + others. SoS may prescribe by regulations.

2A. Minister may make a code of practice for the purpose of providing guidance on how to prevent the spread of ragwort. Admissible as evidence. Court to take into account if considered relevant.

2. Not complying with a notice is an offence, punishable with a fine. Proceedings can only be instituted by Minister.

3. If owner does not comply with notice then Minister can do the necessary work and recover costs from owner.

4. Powers of entry to enable inspection of land.

5. Minister can authorise local authorities to exercise powers [now (only?) Natural England]


7. Regulations under s. 1.

8. Expenses. Parliament pays for expenses incurred by Minister up to Treasury max.

9. Application to Scotland.

10. Repeal and savings.

11. Short title, defines occupier and owner, does not apply in Northern Ireland

Schedule – now repealed

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While this act has something rather like a DoC/CoP structure, the duty of care is not to the environment, but to avoid harm to neighbours’ land and animals from the spread of injurious weeds.

#### Ragwort Control Act 2003

Amends Weeds Act 1959 to enable minister to make a code of practice for preventing spread of ragwort.

#### Natural Environment and Rural Communities Act 2006

Delegates the functions available to the Secretary of State under the Weeds Act to Natural England.

NE has issued enforcement notices: 2011: 42, 2012: 36, 2013: 37 (from Hansard)

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“The provisions of the Weeds Act only apply to Common Ragwort and do not apply to other ragwort species. Other species of ragwort may be equally toxic to horses or other livestock, but are less common or relatively rare. In some situations they may need to be controlled. Some species, such as Fen Ragwort (see picture on inside front cover), are protected. It is important to make correct identification of Common Ragwort before considering any control measures. Obligations and restrictions under SSSI designations or other land management agreements must also be considered and discussed with the appropriate authorities (see Appendix 4) before control action is initiated.”

Presumably the code of practice has proved necessary to clarify what is or isn’t required under the Weeds Act and how it interrelates with other environmental objectives such as protecting biodiversity. It includes a section at the back discussing the trade off between biodiversity and animal welfare/economic impacts, especially wrt horses.
### Injurious weeds – proposed

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**Relevant overall government objective is to achieve good status biodiversity**

**Question: How do we address non-environmental aspects of current legislation i.e. protection of livestock, protection of other people’s property?**

**Can harming weeds be considered a reasonable activity within duty to take reasonable steps to avoid harm to environment?**

**Is weed control a general binding rule/requirement?**

**Question: How does issuing a notice requiring weed clearance fit in here?**

**COP explains how to reasonably control weeds while fulfilling general environmental duty; as per current ragwort code**
### The Hedgerows Regulations 1997

1. **Citation and commencement**
2. **Interpretation.** Defines 1990 Act, 1995 Act [see left], agriculture, agricultural holding, common land, farm business tenancy, gap, hedgerow removal notice, hedgerow retention notice, local planning authority, notice, owner, owns the freehold, protected land, relevant utility operator.
3. **Application of regulations: Length/location of hedgerows to which regulations apply.** Do not apply to boundary of dwelling house.
4. **Criteria for determining “important” hedgerows:** Has existed for more than 30 years and satisfies at least one criterion in Sch 1 Part 2.
5. **Removal of hedgerows:** Removal of hedgerows to which these regulations apply is prohibited unless permitted by local planning authority.
6. **Permitted work:** Removal is permitted if, for e.g. emergency access, national defence, has planning permission (with conditions), flood control, prevention of disease spread, highways, power lines, if hole created replanted.
7. **Offences:** Offence to intentionally or recklessly remove, or cause or permit another person to remove. Subject to a fine. Offences by body corporate.
8. **Replacement of hedgerows:** Local planning authority can require hedgerow illegally removed to be replaced.
9. **Appeals:** Can appeal against hedgerow retention notice to SoS.
10. **Records:** Local planning authority to provide public access to hedgerow removal and retention notices etc.
11. **Injunctions:** Court may grant local planning authority an injunction to restrain an offence.
12. **Rights to enter without a warrant:** LPA can authorise a person to enter to survey/inspect with 24hrs notice.
13. **Rights to enter under warrant:** Justice of the peace can issue a warrant to enter if permission has been refused, or is likely, or in case of urgency.
14. **Rights of entry: supplementary provisions:** e.g. can take samples, shall leave land secure, compensate damage to land or chattels.
15. **Local planning authorities as owners of hedgerows:** Regulation applies to land owned by LAs. How notices will be assessed.
16. **Application of other provisions of the 1990 Act:** W.r.t. ecclesiastical property, and service of notices.

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### Town and Country Planning Act 1990 and others

Relevant definitions and duties e.g. for local planning authorities.

### Environment Act 1995

Section 97: ...Ministers may by regulations make provision for, or in connection with, the protection of important hedgerows in England or Wales.

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**This regulation is primarily a prohibition to remove particular types of high value hedge unless permitted by the local planning authority, with exemptions.**

Offences, appeals, records, injunctions, rights of entry could all be drawn into a standard form.

These criteria are very specific e.g. number of listed species present in hedge, which county hedge is in.

While general duty of care for environment/permitted harm model could potentially address environmental objectives, it would not obviously address archaeology and history protection objectives also addressed by this regulation.

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Schedule 1: Additional criteria for determining “important” hedgerows. Part 1 defines building, record office, relevant date, sites and monuments record, standard tree, woodland species, woody species. Part 2 specifies archaeology and history criteria and wildlife and landscape criteria for assessing “importance.”

Schedule 2: Woodland species - list

Schedule 3: Woody species - list

Schedule 4: Form of hedgerow removal notice
Relevant overall government objective is to achieve good status biodiversity

Question: How do we address non-environmental aspects of current legislation i.e. protection of heritage/ landscape features?

General duty of care may not of itself be enough to provide same level of protection to hedges as is currently in place?

Hedge removal is always an activity that requires a permit?

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General proposed future model – use of risky substances e.g. pesticides

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- Regulatory body
- Duty of care
- Duty to cooperate
- General binding rules
- Fwk for regulatory system

Supporting secondary legislation
- Protected species and habitats
- Activities requiring registration
- Activities requiring permits
- Product standards

Material outside legislation
- (Approved) codes of practice
- Official maps/designations

In general, poorly managed storage or use of products that leads to environmental damage would be captured by the duty of care.

In general, there are likely to be specific rules about banned substances and conditions of use on allowed risky substances.

REACH, which concerns registration and authorisation of chemicals to be marketed, is a separate area of regulation.

In general, poorly managed storage or use of products that leads to environmental damage would be captured by the duty of care.

In general, there are likely to be specific rules about banned substances and conditions of use on allowed risky substances.

In general, codes of practice likely to reflect good practice for management of risky substances e.g. use of pesticides.
General proposed future model – operation in protected areas

Central framework act
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- Environment Committee
- Regulatory body
- Duty of care
- Duty to cooperate
- General binding rules
- Fwk for regulatory system

Supporting secondary legislation
- Protected species and habitats
- Activities requiring registration
- Activities requiring permits
- Product standards

Material outside legislation
- (Approved) codes of practice
- Official maps/designations

General rule of form “activity in a designated area requires permission”

In general, operations will require some form of permission

In general, could be code of practice for operations in protected areas

Designations will indicate where special controls apply
**General proposed future model – flood risk management**

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General proposed future model – Environmental Impact Assessment

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Public access to nature is linked to environmental quality through public health/wellbeing. So relevance of public access depends on scope of act.

Currently Highways Agency for trunk roads/motorways. Other highways including footpaths responsibility of local county or unitary council.

Public access responsibilities included in GAEC 2015, checked by RPA.

Duty of care/ duty to cooperate are not obviously relevant for access rights.

Landowners have duties to provide and maintain access on designated public rights of way. See also open access land.

Landowner code of practice could make reference to access duties, though allowing access is not obviously to meet duty of care.

Definitive maps of rights of way held locally by local highways agency. OS use data but versions held by LHA are the definitive version. Also maps of open access areas.
### General proposed future model – waste/ resource efficiency

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<tr>
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**Duty captures avoidance of environmental harm arising from waste. Current waste duty of care interestingly extends duty to avoid harm beyond your own businesses/household’s activities.**

**Could include (first 2 captured by general duty?**

- Don’t litter/ flytip
- Don’t dump waste
- Do apply waste hierarchy in disposal

**Waste registrations and permits as current system? Add reporting requirements to increase visibility of resource flows?**

**May be role for standards e.g. for permitted quality of recycled materials such as compost, furnace ash**

**e.g. for different types of waste (re)processing, to explain reasonable steps to meet duty of care**

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*Smarter Environmental Legislation*
Contaminated land is defined legally as land where substances could cause:
- significant harm to people or protected species
- significant pollution of surface waters or groundwater

This definition refers to contamination caused by past uses of sites such as: former factories, mines, steelworks, refineries, landfills.

Currently split between EA and local authorities depending on nature of contamination/risk

Captures causing new harm to land as part of the environment

Define who is responsible for cleaning up contaminated land

Includes reasonable steps for avoiding land contamination

Could include contaminated land public registers currently held by individual local authorities. Scope to improve public access to contaminated land records?
### General proposed future model – air quality

<table>
<thead>
<tr>
<th>Central framework act</th>
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</tr>
</thead>
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</tr>
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#### Objectives
- Environment Committee
- Regulatory body
- Duty of care
- Duty to cooperate

#### Supporting secondary legislation
- Protected species and habitats
- Activities requiring registration
- Activities requiring permits
- Product standards

#### Material outside legislation
- (Approved) codes of practice
- Official maps/designations

---

Responsibility for achieving air quality targets is spread quite widely, including DfT, local authorities, EA.

Current system requires LAs to develop local air quality management plans where not achieving standards. But not currently a duty for local businesses (e.g. bus companies, freight hauliers) to cooperate in achieving those objectives.

Responsibility for achieving air quality targets is spread quite widely, including DfT, local authorities, EA.

National strategy for air quality is required by EU Directive currently.

- e.g. offence to emit smoke in smoke control area
- Needs to accommodate the creation of special controls for specified areas e.g. smoke control areas, low emission zones. Currently designation of such zones is LA responsibility.
- Permits will reflect national air quality objectives in requirements for permitted sites
- Can include product standards e.g. vehicle emission standards, exempted (permitted) fireplaces and fuels in smoke control areas
- Can include low emission zones, smoke control areas etc
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