The Royal Commission on Environmental Pollution (RCEP) Report on Artificial Light in the Environment

Government Response

18th March 2010
Introduction

1. In November 2009 the Royal Commission on Environmental Pollution published its short report ‘Artificial Light in the Environment’. The report sets out the Royal Commission’s concerns about the relatively un-researched effects of outdoor artificial light on society and the natural environment. The report makes a number of recommendations aimed addressing these issues through future central and local government policy development, research and practical initiatives.

2. The Government welcomes the report and is grateful to the Royal Commission for highlighting its concerns about the proliferation of outdoor artificial lighting. The Government shares the Royal Commission’s concerns and recognises the need for a concerted effort across a range of key stakeholders through future policy instruments and programmes to address these concerns.

3. As the Royal Commission highlights, consideration of the issues raised in the report falls to a number of central government departments including the Department for Environment Food and Rural Affairs; Department for Communities and Local Government; Home Office; Department for Transport and the devolved administration equivalents. At a local level, local authorities have a key role to play in taking this agenda forward.

4. The Government recognises the need for coordinated departmental activity on this issue and the key role Defra has to play in championing sustainable development and a healthy natural environment. Addressing the last of the Royal Commission’s recommendations contained within the report, Defra will continue its role of ensuring future relevant Government policy development suitably considers the impact of outdoor artificial lighting.

Scope of this Response

5. This response provides the Government’s formal response to the report in England. The devolved administrations are responding to the report separately.
Response to recommendations

6. Specific responses to each of the report’s recommendations are detailed below. The responses have been addressed in the same order as the recommendations in Chapter 6 of the report.

7. Recommendation 6.4 We recommend that those responsible for the management of existing National Parks and Areas of Outstanding Natural Beauty and the equivalent National Scenic Areas in Scotland seek to eliminate unnecessary outdoor light and to better design and manage that which cannot be eliminated, and also that efforts are made to retain or create dark skies over urban areas so that people in major centres of population may have access to the night sky.

8. A new Government Circular which sets out the vision and priorities for the National Parks and the Broads in England will be published in March 2010. As a direct result of the recommendation in the RCEP report, the Circular includes a section on how National Park Authorities and the Broads Authority can best address the problem of deterioration in the quality of the night sky, which is particularly valuable in the many remote areas which occur in these areas. The Circular advises the Authorities to aim, together with public and private stakeholders, to protect and/or restore dark night skies. It also encourages and promotes the reduction, or elimination where practicable, of unnecessary artificial outdoor lighting within the Parks.

9. Recommendation 6.5 We recommend that the highways authorities and local authorities reassess the lighting of roads against potential road safety and crime reduction benefits.

10. The Government supports the recommendation but recognises that this is something that will happen on a scheme-by-scheme basis, as and when lighting infrastructure is programmed for renewal, taking into account the specific environmental characteristics of the area. The Government will invite the UK Lighting Board which includes representatives of local authority street lighting engineers as well as the Institute of Lighting Engineers (ILE) to consider incorporating guidance on this topic in any future edition of “Well-lit Highways”, their code of practice on street lighting maintenance management.

11. Recommendation 6.6 We recommend that the sale of all new external lighting and floodlighting is accompanied by best practice advice, in order to help installers to aim them correctly, so as to avoid light nuisance and minimise light pollution.

12. The Government will continue to work with the lighting industry at both the UK and EU level to explore ways to provide guidance to installers and designers and avoid unnecessary light pollution and to avoid nuisance. Further, recognising the complementary energy savings that can be made by reduced wasted light, the Government will explore opportunities within Europe for appropriate guidance to be provided with lighting products, for example through possible requirements on luminaires\(^1\) under the Eco-design for Energy-using Products Directive.

\(^1\) Luminaires is a complete lighting unit that consists of a lamp or lamps. Luminaires also refer to the parts that help position, protect and connect the lamps.
13. **Recommendation 6.7**  We recommend that there should be explicit consideration of light in planning policy. We recommend that planning guidance includes a presumption against the provision of artificial light in some areas where it may have a negative impact on species of concern. We also recommend that guidance is expanded specifically to enable local authorities to assess the likely ecological impacts of changes to the amount and quality of artificial light. Similar guidance should be provided by the Devolved Administrations.

14. The Government recognises that the planning system can make a contribution to reducing the adverse impact of light pollution in urban and rural areas, both in the preparation of local development frameworks and in determining individual applications. We remain committed to reducing the adverse impact of light pollution through planning, and will consider how best to address the Royal Commission’s concerns when updating and streamlining our planning policies on local environmental quality and pollution.

15. **Recommendation 6.8**  We recommend that local authorities should develop a lighting master plan in consultation with their local communities, professional lighting designers, and their own public lighting engineers.

16. The Government recognises the potential of such plans, but suggests that it is for the local authorities to consider whether to produce them based on the circumstances of their area. In the counties, it should be for the upper tier authority (as the highway authority, with responsibility for street lighting) to lead. Such lighting master plans could then provide a starting point for future public lighting decision making and also feed into local authorities’ street lighting strategies.

17. **Recommendation 6.9**  We recommend that the Government departments responsible for light nuisance legislation in England and Wales, and Scotland keep the legislation under review.

18. The Government supports the recommendation and the provisions are currently under review. Defra are responsible for the statutory nuisance provisions of the Environmental Protection 1990 and in 2006 introduced artificial light as a statutory nuisance. During 2009 a review of the artificial light nuisance provisions was commissioned with the aims of identifying the most common sources of light nuisance complaint; how local authorities have adopted and used the new powers; and the availability and use of current guidance. The findings of the review will be published shortly.

19. In considering the findings of the review and the Royal Commission recommendation the Government will specifically examine the utility of the current exemptions listed within the Act and other differences between the provisions in Scotland and England & Wales and the adequacy of current guidance available to local authorities to address artificial light nuisance.

20. **Recommendation 6.10**  We recommend that the Natural Environment Research Council, with input from other agencies, leads a pilot programme of directed research to explore the impacts of artificial light on populations and ecosystems, and to clarify the effects of both existing and proposed lighting technologies on biological systems.

21. It is the Government understanding that NERC do not support this recommendation as it is aware that there are other priority areas that have been identified by NERC for directed research, including the impact of, and adaptation
to, climate change. However, the Government will work with NERC to encourage suitable high-quality applications to their responsive mode programmes.

22. **Recommendation 6.11** We recommend that the authorities responsible should carry out replacement programmes for road lighting in a way that explicitly minimises the negative impacts of stray light.

23. The Government supports this recommendation and will invite the UK Lighting Board to consider whether it would be useful to produce some practical guidance on minimising the negative impacts of stray light, although there is already Institute of Lighting Engineers (ILE) advice on the topic.

24. **Recommendation 6.12** We recommend that lighting standards should require the provision of light at an intensity no greater than the minimum necessary to deliver the intended benefits and that the light should be directed at only those areas which are intended to be illuminated.

25. Although the Government welcomes the recommendation there are lighting standards available for street lighting in British Standard BS 5489. It is for local highway authorities to consider what they want a street lighting scheme to achieve and to determine the most suitable solution, bearing in mind the particular circumstances of the area; rather than relying on broad standards.

26. The Government will continue to work with the lighting industry to encourage improvements in the design of lamps and luminaires used in external lighting in order to minimise wasted light. Further, the Government will explore any potential opportunities to set binding product standards on luminaires within Europe, in particular through the Eco-design for Energy-using Products Directive, recognising that standards have already been set for the energy efficiency of the lamps used in these applications.

27. **Recommendation 6.13** We recommend that, before replacement road lights using broader wavelength technologies are widely introduced, particularly in rural areas, the Department for Environment, Food and Rural Affairs (Defra) and the Department for Transport should commission a systematic investigation of their impact on natural systems.

28. The Government agrees that the research suggested would be useful. There are many existing and emerging threats, including climate change, that require urgent evidence to underpin biodiversity conservation. Nonetheless, the Government accepts that this is an under-researched area of potential concern. We propose to initiate cross-departmental discussions on options for a co-funded scoping study to review known effects of relevant wavelengths, outline likely impacts of new technology, identify the role of industry and identify priorities and options for future research. We would hope that such a study would generate further primary research, through directed or responsive funding by Government, industry, research councils, agencies and NGOs.

29. **Recommendation 6.15** We recommend that local authorities and others responsible for the provision of road lighting should pay careful attention to the outcome of the trials currently underway to examine the impact of reducing or turning off lighting in quieter areas where there is unlikely to be any significant use of the roads by pedestrians or road traffic; and that they should consider what lessons they can draw from them to help minimise negative impacts.
30. The Government agrees with the recommendation and will invite the UK Lighting Board to consider how it can encourage the collation and dissemination of information about such trials.