EA - SUSTAINABLE DEVELOPMENT BOX 5

ENVIRONMENT AGENCY

OPPORTUNITIES FOR CHANGE: THE ENVIRONMENT AGENCY'S RESPONSE TO THE GOVERNMENT CONSULTATION PAPER ON A REVISED UK STRATEGY FOR SUSTAINABLE DEVELOPMENT

memo

ENVIRONMENT AGENCY

To	Executive Managers	Our ref	CMN/MHC/oppforch
From	Chris Newton	Your ref	
Ext Number	4468	Date	11 June 1998

AGENCY RESPONSE TO THE GOVERNMENT CONSULTATION "OPPORTUNITIES FOR CHANGE"

I was delighted to be asked by Ed to ensure that all Executive Managers received a copy of this response.

As a publicly available statement of Agency views and opinions on a wide range of core issues it is important that you are fully aware of the content.

This consultation provided the Agency with an excellent opportunity to consider its activities and policies, across the board, and to reflect on the contribution we are able to make to sustainable development. The answers which this has produced and the recommendations we have passed forward to the Government are entirely relevant to our current exercise of reappraising the organisation's business around the environmental strategy themes.

It is particularly interesting to note the emergence of some themes which cut across traditional Agency boundaries - such as:

- climate change;
- transport;
- energy, and
- land use;

and also to note the promotion of new tools and techniques for achieving environmental change:

- institutional change such as Regional Sustainable Development Strategies;
- economic instruments;
- resource demand management;
- policy integration and reform;
- consensus building;
- education.

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These are clearly areas where the Agency is beginning to be active but where more investment of resources could yield even higher returns.

Could I also draw your attention to the process used to generate this response which I have described as 'extensive and inclusive'. This is set out in Box 1 on page 68. I am confident that this approach has produced a significantly better and more complete response than would have otherwise been the case also that this is now very much "our" response.

Drafting of the new UK Sustainable Development Strategy is now beginning and our powerful input has already ensured that we are being drawn heavily into the drafting process.

Significant thanks are due to those of you and to your staff who were involved in putting the response together. It would seem appropriate to copy the response to those Regional Committees who participated in the process. Further copies and an electronic version can be provided on request.

CHRIS NEWTON
Head of Sustainable Development

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ENVIRONMENT AGENCY

Your ref.
Our ref. CHM/AKC/SUSDEV

Date: 2 June 1998

The Rt Hon John Prescott MP
Deputy Prime Minister
Department of the Environment Transport & The Regions
Eland House
Bressenden Place
London
SW1E 5DU

Dear Deputy Prime Minister,

Enclosed is a copy of our response to the consultation paper on a revised UK strategy for sustainable development. In view of the fact that the Agency's principal aim, as set in statute, is to play its part in contributing to the achievement of sustainable development, we have made a considerable effort to produce a full response. The exercise has involved all facets of the Agency, as our response explains, and the internal process of consultation has in itself proved to be a very useful exercise in bringing home to our staff the practical implications of putting such a national strategy into practice.

Because the *Opportunities for Change* document was a general one, the questions it contained were obviously not always directed towards the Agency's responsibilities. One issue not addressed, but of particular relevance to us, is the relationship between the specific duty placed on us (and SEPA) to make a contribution towards sustainable development and the overall objectives of the revised UK strategy.

We anticipate, in view of this fundamental review of what sustainable development is all about, that Ministers will revise their guidance to the Agency with respect to objectives which they consider it appropriate for us to pursue - as required by the Environment Act 1995. We would obviously be pleased to help in any way in any revision of the existing guidance.

We are, in any case, conscious of the current review of legislation relative to the Agency (and to SEPA) and would like to take that opportunity to raise a number of issues which impinge upon our role with regard to sustainable development. These include, particularly, our responsibilities with regard to monitoring and assessing the state of the environment in a comprehensive way, and the somewhat inconsistent interface we currently have to deal with in relation to environmental quality and human health across our functional responsibilities. No doubt the developing legislation on changes to regional government will also raise issues in relation to the

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delivery of different aspects of sustainable development at a local level. We have already been active in this area with respect to the provision of data and the adoption of common approaches.

With regard to the wide range of subjects which the *Opportunities for Change* has attempted to cover, it is evident that the Agency and its staff have compiled a large quantity of relevant information and views which it has been impossible to incorporate into our - already somewhat lengthy - response. Naturally we would be more than willing to provide all such information to the Department, and to discuss any of the issues in much greater detail if required. Our relevant contact is our Chief Scientist, Dr R J Pentreath - Rio House, Aztec West, Almondsbury, Bristol BS32 4UD; Tel. 01454 624064.

Yours sincerely,

De Ramsey.

THE LORD DE RAMSEY
CHAIRMAN

Enclosure

1 "Opportunities for Change"

Environment Agency, Chairman's Office, Hampton House, 20 Albert Embankment, London SE1 7TJ
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OPPORTUNITIES FOR CHANGE: THE ENVIRONMENT AGENCY'S RESPONSE TO THE GOVERNMENT CONSULTATION PAPER ON A REVISED UK STRATEGY FOR SUSTAINABLE DEVELOPMENT.

Contents **Page**

1 The Environment Agency and Sustainable Development.

1.1 The Environment Agency became fully operational on 1st April 1996, under the provisions of the Environment Act 1995. It has major responsibilities for the management and regulation of the water environment, and for controlling industrial pollution and wastes. Its principle aim is to exercise its functions in order to contribute to the objective of sustainable development, and it is subject to statutory guidance from Government as to how to make this contribution.

1.2 Environmental care is at the heart of any model of sustainable development. The protection of people's basic needs - clean air, clean water, good land quality and an abundance of natural resources - is a fundamental requirement. These provide the basis of support to other social and economic objectives. The role of the Agency is therefore central to the sustainable development of England and Wales.

1.3 The approach we have adopted is set out in our *Environmental Strategy.* Through the consultation and thinking that went in to the formulation of this strategy and our efforts to date in working 'on the ground' to contribute to sustainable development, we have acquired first hand experience of many of the issues involved. This direct experience makes us well placed to contribute to the further development of the UK Sustainable Development Strategy.

1.4 We have produced a series of twelve Sustainable Development Guidance Notes to assist our staff in understanding and developing good practice within the Agency, and much of this guidance is relevant externally. Included in this series are two sets of case studies (covering waste minimisation, and the wider range of the Agency's activities, respectively) that provide comprehensive illustrations of how we are attempting to put the principles of contributing to sustainable development into practice.

1.5 We anticipate that the outcome of this consultation exercise is likely to have a significant bearing on the Agency's activities in the future. We would therefore welcome the opportunity to develop further some of the ideas and recommendations that we have made in this response with the DETR.

2 The *Opportunities for Change* Consultation

2.1 The Agency welcomes the *Opportunities for Change* consultation process. As well as responding to the consultation document, we have undertaken a number initiatives that will contribute to the debates on the numerous issues that it raises. In addressing the questions raised in the consultation paper, we have identified a number of cross- cutting issues. These are set out in section 3 of the response, and responses to the individual questions and issues are given in Appendix 1.

2.2 In preparing our response we undertook as wide and as inclusive a process as possible, involving all of our Regions, our Statutory Committees, and our Board members. This

process, which resulted in eight separate papers covering discreet subject areas, is outlined in Appendix 2.

2.3 While we feel that our response has been strengthened by adopting a more inclusive process for its production, it has nevertheless limited the extent to which we have been able to develop further the eight separate submissions. The range and breadth of the issues raised and their relevance to the Agency's activities also varies considerably, with the result that some issues are dealt with in more detail than others. We would be happy to refine and develop further our ideas if this is required.

2.4 In responding to the questions we have, for the sake of brevity, focussed on the key points; but we would also wish to draw attention to our responses to a range of recent Government consultations and Parliamentary inquiries which set out, in more detail, our stance on particular issues. These are listed in Appendix 3.

2.5 We will be responding in more detail to the forthcoming discussion papers on business, housing and construction, biodiversity and forestry, which we understand are to be issued shortly as part of the wider *Opportunities for Change* consultation process. Other ongoing or forthcoming initiatives which will provide opportunities for a more detailed analysis of our views on specific issues relevant to sustainable development include the Integrated Transport White Paper; the Review of Fisheries Legislation; and the consultation on water resources. We would request that these are also taken into account in the preparation of the revised UK Sustainable Development Strategy.

3. Key Issues

3.1 In preparing our response to the questions raised in the consultation document, we have identified a number of key issues, many of which cut across a number of subject areas. These are set out below. Recommendations in respect of these issues are given in Section 4.

3.2 Sustainable Development Principles

The existing UK Sustainable Development Strategy sets outs a number of key principles for sustainable development. These ensure that likely environmental costs and benefits are taken into account alongside economic costs and benefits. The Agency is committed to these principles, which are re-stated in our statutory guidance, and urges that they remain as cornerstones of the revised UK Strategy.

Development of Policies and Long Term Objectives.

3.3 There appear to be relatively few policy areas where Government has set out long- term strategies and objectives specifically related to sustainable development. Notable exceptions are with respect to the reduction of greenhouse gases, biodiversity and forestry. We believe that there should be a clear set of broad objectives, addressing the

broad direction of environmental, economic and social policy. There should be a clear exposition of what sustainable development actually means for the UK, and thus a clear set of targets to focus policy and action. These need to take account of spatial scales (eg local, national and international) and time (eg 5 years, 25 years, 100 years). All need to be regularly reviewed, to ensure that they remain relevant, and to avoid any mis-allocation of resources to meet short-term targets rather than longer-term objectives. National (UK) 'sustainable development' strategies need to be developed to address such issues as the impact of climate change, energy production, transport and so on, to which the Agency can then relate its own strategic approach with respect to England and Wales.

3.4 As well as following the basic principles of sustainable development we consider that such strategies should include the following as long term objectives:

- explicit recognition of the value of the environment, not just as a resource to be used or enjoyed, but also as an asset to be valued for itself;
- better linkage between the cost of mitigating or overcoming environmental impacts and the activities that cause them;
- recognition and support for activities which protect and enhance wider public benefits;
- regulatory mechanisms more closely allied to the environmental impact of activities, capable of addressing diffuse source as well as acute source impacts; and
- indicators and monitoring programmes to measure progress towards objectives.

These strategies should also inform regional planning for sustainability.

Public Attitudes and Education

3.5 In our responses to individual questions, we have advocated a number of changes to Government policy and legislation, as well as technological changes and the adoption of best practice. We are however firmly of the view that these, on their own, will not bring about the changes needed to achieve sustainable development. We believe that this will only be achieved if there is an accompanying fundamental shift in underlying public attitudes. To that end, Government should undertake a long-term sustained campaign to ensure that all sectors of society understand and embrace the concepts underpinning sustainable development - even if they do not know it under that name.

3.6 Such changes in attitude and lifestyles are unlikely to be achieved if they are perceived simply as 'giving things up', or 'making do with less'. It must be apparent that people will, overall, be getting something better in return, even if it is by way of replacing an immediate, obvious, short-term benefit with one which is more subtle and longer term. This would highlight the benefits of sustainable development, as they apply to the individual, and is as important a message as that of highlighting the adverse consequences of unsustainable lifestyles.

Making Sustainable Development a common goal for all Government Departments and Public Bodies

3.7 We welcome the revision of the UK Sustainable Development Strategy, but are concerned that this may not provide the commonality of purpose that it deserves unless there is a clear obligation on the public sector to pursue these objectives. To reinforce the need for sustainable development to be at the heart of decision making, we also consider that the need to achieve it should be one of the objectives of all Government departments, statutory agencies, and regional/ local government. While it is likely that there will always be some tensions amongst public bodies and layers of government (and, indeed, differences in interpreting what precisely is meant by sustainable development), we feel that by placing it as a common duty throughout the public sector will help reduce some of these tensions. As is currently the case with the Agency, such a duty would have to be supported by relevant statutory guidance, based on the revised Strategy.

Promotion of Best Practices.

3.8 We also believe that there is scope across a wide range of activities for a much more widespread and rapid adoption of best environmental practice, but more attention should be given to understanding the mechanisms responsible, and seeking ways of overcoming them. In particular, we consider that the principle behind 'BATNEEC' (best available technology not entailing excessive cost) could be applied much more widely, with an appropriate mixture of 'sticks and carrots' to encourage the move to best practice.

Resource Efficient Homes

3.9 For key resources such as energy (particularly electricity) and water, consumption within the home is a significant proportion of overall national consumption. If steps are to be taken to make the country's overall use of these resources more sustainable, then use within the home must be a focus for attention. We believe greater efforts should be devoted to making housing much more resource efficient. This will require both the adoptions of higher standards in new constructions, such as better insulation and use of low consumption water fittings, and upgrading of the existing housing stock. Other initiatives operating at the level of individual homes that we would advocate include the extention of water metering for domestic customers and mechanisms to speed up the use of energy efficient appliances.

3.10 **Environmental Assessment and Options Appraisal**

One of the keys to sustainable development is to ensure that decisions are taken in the light of a full understanding of their environmental consequences, given reasonable constraints of scientific understanding and the practicality of gathering the necessary information. This applies both to individual projects, and to wider reaching policies. Current guidance on environmental appraisal for Government Departments, which would help make more transparent their environmental consequences and highlight the best options, does not appear to be widely applied at present, even within Government itself.

As the voluntary adoption of such practice seems to be very limited, there should now be a more formal requirement for such appraisals. To this end, the proposed EU Directive on Strategic Environmental Assessment would appear to be a step in the right direction.

3.11 A variety of tools and methodologies can help inform the environmental assessment process, particularly if there is to be a development of a true synergy between economic, social, and environmental objectives, rather than just avoiding negative environmental impacts. As a result of our own practical experiences, we recognise that there is still a great deal of work to be done to translate theoretical models of sustainable development into practical policies on the ground. We have, for example, used the concept of "critical loads" with some success in respect of acidic deposition , and consider that there is merit in undertaking much more research into the use of environmental carrying capacities to help show at what levels particular activities, or land uses, will give rise to unacceptable environmental impacts. We have also collaborated with other Agencies in developing the use of the concept of "environmental capital" to highlight the environmental consequences of policies and proposals. Life cycle analysis and risk assessment also have an important role to play in the options appraisal process.

Regional Environmental Plans

3.12 We are committed to producing a series of regional environmental plans, jointly with local authorities and other stakeholders on a Government Regional Office basis. We will provide much of the environmental information and methodology on which these plans will be based. It is expected that these plans will provide the environmental element for a sustainability framework to inform the hierarchy of Regional Planning Guidance, Structure Plans, Local plans and development proposals. They will also have strong links with to our Local Environment Agency Plans and other non - statutory plans such as biodiversity action plans and those for Countryside Character/ Natural Areas.

Integrating Agricultural and Environmental Aims.

3.13 Current agricultural patterns and practices, driven by the CAP, are recognised as having significant adverse impacts across a range of environmental resources. We therefore believe that the long term goal should be an agricultural policy that is one component of sustainable countryside management, with an emphasis on the prevention rather than cure of adverse environmental impacts. Environmental objectives should be more central to the CAP's overall aim. Within the UK, we should exploit to the full any flexibility permitted to member states to maximise the pursuit of environmental goals and the sustainable development of rural areas.

Climate Change

3.14 On the basis of current knowledge and predictions of the potential effects of climate change it appears that, over the coming decades, there will be significant environmental impacts, including sea level rise, altered patterns of rainfall, water needs, and changing patterns of land use, with consequent impacts across a wide section of economic, social

and environmental issues. We believe that there should be a concerted national (UK) programme, to monitor for these changes in climate, to improve the certainty of modelling, and to plan for their impacts. Dealing with climate change should be a key theme of the revised UK Sustainable Development Strategy.

4. Recommendations

We would like to make the following recommendations.

4.1 *The key principles of sustainable development should be re-stated in the revised UK Sustainable Development strategy.*

4.2 *There should be a clear definition, together with a set of objectives, which identify what sustainable development means for the UK and which addresses the broad direction of environmental, economic and relevant social policy. There should also be a set of targets relevant to the main subsections of policy which need to be achieved within given time scales.*

4.3 *Government should undertake a long term sustained campaign to ensure that all sectors of industry and society understand and embrace the concepts underpinning sustainable development, in order to bring about a fundamental shift in underlying public attitudes.*

4.4 *Public bodies must be given a clear duty to contribute their part to sustainable development, supported by statutory guidance, to make them more conscious of the context in which they work, and to provide a commonality of Government purpose.*

4.5 *The principle behind 'BATNEEC' (best available technology not entailing excessive cost) should be applied much more widely, and work undertaken to understand better the mechanisms that hinder the adoption of best practice and technologies and how they may be overcome.*

4.6 *Greater attention should be paid to increasing the resource efficiency of individual homes, particularly in respect of water and energy use, by both upgrading the existing housing stock, and setting higher standards for new construction.*

4.7 *There should be a formal requirement for environmental assessments to be made, to agreed standards, for policies in all sectors in order to make more transparent their environmental consequences and highlight the best options. More work is required to translate theoretical models of sustainable development into practical approaches that can help inform decision and options appraisal at both a strategic and project level.*

4.8 *The production of regional sustainability frameworks should be encouraged to inform the hierarchy of Regional Planning Guidance, Structure Plans, Local Plans and development proposals.*

4.9 *The long-term goal of the CAP should be an agricultural policy that is the central*

component of sustainable countryside management, with an emphasis on the prevention rather than cure of potential adverse environmental impacts. Environmental objectives should be more central to its overall aim. Within the UK, Government should exploit to the full any flexibility permitted to member states to maximise the pursuit of environmental goals and the sustainable development of rural areas.

4.10 *Dealing with the potential effects of climate change should be a key theme in the revised UK Sustainable Development Strategy.*

Dr R J Pentreath
Chief Scientist and Director of Environmental Strategy

Appendix 1.

OPPORTUNITIES FOR CHANGE: THE ENVIRONMENT AGENCY's RESPONSE TO THE INDIVIDUAL QUESTIONS RAISED IN THE CONSULTATION DOCUMENT

1. Structure

1.1 In order to respond to the specific questions contained in the *Opportunities for Change* report, we placed them into eight subject groupings (see table 1), each of which had some coherence to our own activities and internal structures. Our responses to the questions are presented below in these groupings, to maintain the coherence in approach that this provides. But this does mean that the questions are not addressed in the same order as they are raised in the consultation document. For ease of cross reference therefore, each question is restated and numbered according to the paragraph in which it appears in the original report.

Table 1 Groupings of questions used to prepare the response.

Section	Paragraph Numbers	Subject Area
2	15, 16, 84, 85, 96	**Strategic & Pervasive Issues**
3	71	**Water Resources and Water Quality**
4	41, 47, 49, 59	**Planning and Local Issues**
5	67, 69	**Energy Policy and Air Quality**
6	73, 74	**Marine Pollution and Fisheries**
7	46, 81	**Land, Construction and Aggregates**
8	77, 78, 79, 80, 50	**Conservation and Countryside Issues**
9	27, 31, 89, 97	**Information and Education**

1.2 For each grouping of questions, we have set out any general issues arising from them, and any indicators we have identified which would help progress to be measured.

1.3 For each question, the key points of our response are set out, together with our recommendations. Relevant case studies or practical examples are also provided, and in some instances we have made suggestions with respect to appropriate indicators.

2 Strategic and Pervasive Issues (Paragraphs 15,16,84,85,96)

Introduction

2.1 Sustainable development seeks to bring together concern for the environment, for the economy, for society, and for the future. The critical question is: how do we make the changes needed to give these concerns practical effect? This means asking:

- what do we mean by the "quality of life" that sustainable development aims to achieve; and

- what level of change to our way of life are we prepared to accept?

2.2 Quality of life is a measure of people's well being - their ability to meet their needs and aspirations. It is affected by the quality of the environment, economy, and society. It changes over time. It may be difficult to say if the quality of life for a given person today is better or worse than that of any person living in the past. There are many possible future states of the world, and it is hard to predict how people in future may view their quality of life.

2.3 Many other countries aspire to similar living conditions to those in the UK. The consultation paper seems to assume that a series of incremental changes (eg technology development) or adjustments (eg using more public transport) can meet all aspirations, locally, nationally and internationally - a "win/win," or at worst as a "win/no-change" scenario. But incremental changes may not be sufficient. In order to develop in a sustainable manner, some of the freedoms enjoyed in the developed world may be lost (for example people may have to relinquish their freedom to enjoy private transport in many cases) - a "win/lose" scenario. This question needs to be addressed honestly.

2.4 The existing UK Sustainable Development Strategy sets out a number of key principles for sustainable development. These ensure that likely environmental costs and benefits are taken into account alongside economic costs and benefits. The Agency is committed to these principles, which are re- stated in our statutory guidance, and urges that they remain as cornerstones of the revised UK Strategy.

2.5 Due to the nature of the questions addressed in this section, our responses here also apply to sections 3 to 9 of our response, which address more narrowly - focussed subject areas.

Question

2.6 Paragraph 15 (a) ***We invite your views on what the objectives and targets should be, and the policies to achieve them.***

2.7 **Key Points**

- One over-riding objective is to move beyond making people "feel better" to enabling them to make real changes in their lives and works.

- Targets can focus action and motivate people. They do not collect the full complexity of a subject. If slavishly followed, they can lead to misdirection of resources.

- The overall objectives must always take precedence, and the targets must be regularly reviewed and revised to keep the long-term attention on sustainable development across the board.

- Our Environmental Strategy contains a set of key objectives for the environment. Similar strategies could be developed for other areas of policy, and the necessary cross-linkages developed at national (UK) and local level. The need for such strategies is also highlighted in our response to water resource management (section 3) and management of the countryside (section 8).

2.8 **Recommendation**

- *There should be a clear set of objectives which identify what sustainable development means for the UK and which address the broad direction of environmental, economic and relevant social policy. There should also be a set of targets relevant to the main subsections of policy. These need to take account of spatial scales (eg local, national and international) and time (eg 5 years, 25 years, 100 years). All need to be regularly reviewed to ensure that they remain relevant, and to avoid any mis-allocation of resources to meet short-term targets rather than longer-term objectives.*

Question

2.9 Paragraph 15 (b)***We ask you to suggest ways in which everyone can play their part in sustainable development, and what the Government can do to help them.***

2.10 **Key Points**

- Sustainable development is delivered by people acting in their own right, and acting as part of institutions, eg families, business, government, voluntary organisations, etc. Individuals need a balance of information and guidance to enable them to make choices about how they contribute to sustainable development. This balance may be different in different cases. More research is needed on what actually makes people act differently, and what sort of information or guidance they respond to.

- The institutions, and particularly the public ones, need to work together to achieve sustainable development. There are three potential problems that must be addressed:
  - a certain amount of overlap in responsibility may ensure that a problem is solved, and may even encourage innovative solutions, although too much overlap may be inefficient;
  - gaps in responsibility are more worrying than overlaps, in that at the edges of an institution's remit important issues can be dropped; and
  - the work of any one institution, focussed on its own limited objectives, may affect how a different institution can achieve its goals (for example, a single-minded

environment regulator may benefit the environment, but at a cost, while a single minded economic regulator may benefit the economy, but leave the environment at risk.)

- Government can provide a coherent framework, which would gives all public bodies a general objective to promote sustainable development, and set out clear frameworks within which they can operate together. (For example, it can set out more clearly how environmental and economic regulators can operate together.)

- The ways in which public bodies themselves work may need to change to take account of sustainable development. Thus:

  - public bodies need to be focused on what they are good at and be mature enough to allow others to contribute to their objectives, contracting work out where others can do it better; and

  - public bodies need to acknowledge that they do not have all the answers, and that sustainable development also means that all sectors of society need to participate more fully in the process of making decisions relating to it, as well as being expected to participate in the solutions.

  - Problems and issues change and develop rapidly, si that there is often no one 'right' answer. If we want to achieve sustainable development we need to acknowledge this, and be prepared to accept some uncertainty. This may also mean accepting that public bodies can sometimes make mistakes, in the cause of being able to respond rapidly to changing circumstance.

  - Regulators are good at saying 'No!' Many of today's problems need an ability to say 'Yes!' In many cases this means suggesting options for what people can do, rather than vetoing their proposals.

Case Study: Consensus Building and Local Environment Agency Plans

The Environment Agency has a primary duty to contribute to sustainable development. One tool to help achieve this is the Local Environment Agency Plan (LEAP) which brings environmental improvement to a local level. The Agency's Southern region has developed a consensus-building approach to involve local groups in developing those plans. This enables the Agency to take account of not just environmental problems, but also social and economic issues. It also enables a wider public to participate directly in the Agency's decision making.

2.11 **Recommendations**

- *Government should set clear frameworks within which the public bodies operate, to enable them to work together to common ends. Public bodies must be given a clear duty to contribute their part to sustainable development, to make them more conscious of the wider context in which they work.*

- *The model of a 'public body' must be developed to take account of the greater complexity of the issues that they deal with.*

- *More research is needed on how to involve people and organisations in decision making for sustainable development, and on the balance of information and guidance required.*

- *Central Government, local authorities, the Environment Agency and other bodies should produce clearer information and guidance, like the LEAPS, enabling people to find out for themselves what contribution they can make.*

- *The evolving local democracy can be used to further this process, by giving local authorities and assemblies clear duties to contribute to sustainable development and to enable their communities to do likewise.*

2.12 **Question**

Paragraph 16 ***We would welcome your views on a set of key indicators of sustainable development.***

2.13 **Key Points**

- As part of its overall environmental strategy and its '*Viewpoints*' initiative, the Agency is developing a set of environmental indicators to provide straightforward and meaningful measures of environmental performance. These indicators have been designed for use at a national, regional and local (LEAPs) level, such that it should be possible to 'nest' information geographically.

- These environmental indicators are complementary to the initial set of indicators of sustainable development published by the Government in 1996, and we have been advocating their use in our input to the revision of the latter that is currently being undertaken by DETR. We anticipate that we will have an important role in supplying the environmental information required for a national set of sustainable development indicators.

- We will be producing a paper setting out our views on environmental indicators in the near future (July 1998). This will be presented to DETR as part of our contribution to the debate on indicators that is part of the overall *Opportunities for Change* consultation.

- We have made some suggestions for indicators in our responses to the specific questions addressed in sections 3 - 9 below.

2.14 **Recommendation**

- *Environmental indicators must be a key component of an overall set of sustainable development indicators.*

2.15 **Question**

paragraph 84 ***We invite views on how economic instruments in general can be used to promote sustainable development.***

2.16 **Key Points**

- We have recently commented in detail on the Government's consultation paper on the use of economic instruments for water pollution control.

- Economic instruments complement regulation, they are not a substitute. They do not provide the same level of certainty that, in some cases, is required. And they do not yet carry the same level of public confidence.

- It is important that more general fiscal measures do not send out signals that conflict with underlying environmental policies. (For example, current taxation arrangements (VAT) make it more expensive to renovate a derelict building and re-use a brownfield site than to build on a greenfield site.)

- Economic instruments should be introduced as part of a plan, so that they work consistently together, and with other regulations. They should not be introduced in an *ad hoc* manner

- There are a great many issues facing us now where the scope and nature of the problem is such that traditional regulation is not as effective as it is for others. (For example, controlling diffuse pollution, such as pesticides in water, is more complex than controlling discharges from pipes. Economic instruments can be particularly useful in such cases.)

2.17 **Recommendations**

- *Government should formulate a clear policy setting out how it intends to introduce economic instruments as a whole. .This should not simply be a set of criteria for assessing individual instruments, but a clear strategy towards shifting taxation to environmental "bads."*

- *Economic instruments should be particularly targeted towards those types of problems that regulation is not able to tackle well - diffuse pollution, etc.*

Question

2.18 Paragraph 85 ***We invite your views on whether there are any significant areas where regulation could better reflect sustainable development objectives.***

2.19 **Key Points**

- Regulation needs to develop, just like the regulatory institutions should develop (see section 2.10 above). This development should include:

  - more inclusive interpretation of legislation (for example, the narrow remit of much current legislation, such as the site-specific requirements of EPA 90, cannot be overridden by general duties even if those duties point to the common good, as they do in the sustainable development duty in EA 95);

  - more systemic regulation, buy looking at whole resource use, not just the process (for example, looking at minimising waste production, not just the landfill site); and

  - equality in regulation, so that activities giving rise to similar environmental impacts are subject to a similar degree of regulation.

- Regulatory solutions themselves can cause failure at the edges. Thus tightening the control over a substance in one sector of industry may lead to increases in releases in another sector, which is subject to a different regulatory regime. Regulatory regimes based on ease of application, rather than environmental impact, may mean that some sectors bear a disproportionate regulatory burden; regulation may therefore focus on easily identifiable point sources(eg sewage works discharges), rather than diffuse inputs (e.g agricultural runoff) even though the latter may have an equal or even greater overall impact.

- The problems being addressed also change and develop. (For example, we have recently become aware of direct evidence of the environmental impact of endocrine disrupting chemicals. And climate change is likely to alter the pattern of a wide range of environmental stresses in England and Wales. These issues require that the system of control must develop and be flexible.

- There are two particular issues for regulators.

  - How do we learn from past mistakes? Measures such as an audit of the effectiveness of current regulatory processes against sustainability objectives would help.

  - How do we develop in future? There is a tendency for regulation and control to become outdated (the situation with abstraction "licenses of right"), or for fixes to accrete over time (for example the CAP reform has often meant adding new fixes to an outdated machine). New systems need to be engineered to be adaptable.

Case Study: Dissemination of best regulatory practice.
The Environment Agency has established an Environmental Protection National Service, which enables it to pass experience on best practice across the regions and functions of the Agency. It will also seek to adapt regulatory experience from other areas to the Agency's work.

2.20 **Recommendations**

- *Regulatory audit will help show how regulations work*
- *There should be less emphasis on narrow regulations, more on how to use suites of solutions to solve generic problems.*
- *Regulators should learn from each other. For example, there may be scope for adapting the concept of "planning gain" from local planning control to use in environmental licencing.*
- *Regulatory regimes should be flexible, and not be unduly biased between sectors of the economy that have similar environmental impacts*

Question

2.21 Paragraph 96 (a) ***We would welcome views on how to ensure that sustainable development objectives are introduced into the broad scope of international agreements, and ...***

2.22 **Key Points**

- Too often the environment is a low priority in international agreements concerned with such issues as trade and economic development. In practice, sustainable development should be able to reconcile most of the needs of social and economic development.
- A failure to take full account of environmental and social issues can have a serious effect on the acceptability of an agreement, as the difficulties with the Multi-lateral agreement on investment has illustrated

2.23 **Recommendations**

- *International agreements should be more suited to sustainable development, making joint consideration of the environmental, economic and social factors a key element in all discussions.*
- *The environment should be explicitly included in existing agreements as a matter of urgency, and the priority of agreements on the environment raised in the standing of international treaties.*

Question

2.24 Paragraph 96 (b) ... ***which areas are the priorities for international action.***

2.25 **Key Points**

- Sustainable development cuts across economic and social as well as environmental issues.

- In many cases environmental and economic deprivation go hand in hand. Improving the environment may be a key to alleviating poverty.

- Different societies are at different stages of development, with different needs. It may not be necessary to bring all to the same standard immediately but, as with national objectives, it may be advisable to set long term objectives for all, so that the path towards sustainable development is clear.

- Developed countries have much to learn from experience in developing countries, and have a crucial role to play in assisting all to develop fairly. In some cases this may involve positive action to reduce demand in the developed world, so that resources may be more fairly shared out.

2.26 **Recommendations**

- *There should be a holistic appraisal of problems, so that the dimensions of sustainable development are fully taken account of when looking at development. This needs to reflect ethnic and gender issues to ensure that development is truly sustainable for all.*

- *Each community may have its own local problems, which must not be lost sight of, though there are many common issues, such as climate change and biodiversity loss.*
- *The export of technology should be appropriate to development needs, including environmental improvement and protection. In particular, education and skills are more valuable than inappropriate technology.*

- *There should be more active work in the UK to ensure that institutions and individuals learn from experience in other countries, and in particular from the experience of developing countries.*

3 Water Resources and Water Quality (paragraph 71)

Introduction

3.1 Water resource management is a key duty and role for the Environment Agency. We have just completed a major review of the state of the freshwater environment. (*The State of the Environment of England and Wales: Freshwaters*)We are working actively with Government and a wide range of other stakeholders to move towards, and plan for, more sustainable use of water resources both in terms of the quality and quantity of the resource. Our response below sets out what we believe to be the priority issues for the general management of water resources, and more specifically in respect of abstraction and use of water, plus water quality issues. Many of these issues are currently being addressed by DETR in their review of the abstraction licensing system.

3.2 In identifying these priorities, it is important to consider the wide variety of services that water provides, and the past history of exploitation of the resource.

3.3 Natural waters, as well as offering a potential resource for exploitation, also serve as a source of recreation and are valuable in their own right in terms of the biodiversity they support and their contribution to the character of the landscape. Water serves society in a variety of roles. From drinking, to use in industry, cooling, washing, and transporting waste away from our homes and workplaces. The water environment is the 'sink' for a whole range of by-products, wastes, and pollutants created by man's activities. Water quality reflects the impacts of agriculture, industry, urbanisation, transport and in fact all our activities, whether or not they involve specific discharges. The various and conflicting uses to which water can be put, and how these conflicts are to be resolved, provides a clear example of the need to strike a sustainable balance for the future.

3.4 As the UK's economy has changed, some sources of water abstraction and pollution have reduced or disappeared as older and more polluting industrial sectors have been replaced. There have also been general improvements in water quality since privatisation of the water industry, reflecting the prioritization, scale, and speed of investment in that sector. Due to these changes in some parts of the country, for example the South and East, many acute water pollution issues have been overcome. In these regions we are now faced with problems which are more difficult to tackle through direct regulation; for example diffuse pollution associated with nutrients and pesticides and urban run-off. In other parts of the country, notably the North, issues related to poor water quality caused by point source discharges remain to be addressed, in addition to those of diffuse pollution.

3.5 Changing patterns in land use and industrial activity have also given rise to new threats - for example the impact of minewaters from abandoned mines, the impacts of acidic deposition, and the effects of endocrine disrupting chemicals. Similarly, changing patterns of agriculture have resulted in new issues. For example, the general intensification of farming practices has led to increased abstraction for irrigation, greater run off of nutrients, and problems associated with the disposal of agricultural wastes. The dynamics of these processes of change means that individual river catchments vary greatly and priorities need to be matched to local circumstances and existing conditions.

3.6 The Agency's Local Environmental Action Plans (LEAPs) are an established mechanism for assessing these issues at a catchment level. Outputs are incorporated into the regional and national water quality planning process and used to develop strategic national and regional plans for future water resources management.

3.7 The wide variety of stresses and strains on the freshwater environment requires its sustainable management to consist of a concerted effort in a number of spheres: the regulation of abstractions and discharges to prevent damage; initiatives such as waste minimisation and market transformation to provide opportunities to change; and economic measures and education to offer incentives. The successful outcome of sustainable water use will require both a coordination of effort and an understanding of how best to apply it. It is vital that any methods used acknowledge the intrinsic value of the environment itself, and not just as a resource to be used.

Question

3.8 Paragraph 71 ***We would welcome views on what further actions can be taken to ensure that our water resources are managed in a sustainable way in future including future priorities for freshwater quality.***

3.9 **Key Points - General Issues**

3.9.1 **Value of the environment**

□ The Agency, with many of its stakeholders, is conscious that it is difficult to place a value on the protection of the environment, particularly its intrinsic value. This potentially offers fertile ground for would-be abstractors to challenge our decisions in the context of our duty to *"take into account likely costs and benefits"*.

3.9.2 **Land use planning**

□ Although the Agency is involved with local planning on a strategic and a detailed level, there is a view that in planning decisions, insufficient account is taken of the local stress upon the water environment, and of the availability or otherwise of developed or developable water supplies to meet additional demands for water resources resulting from planning decisions.

□ The consequences from lack of consideration of water resources in taking planning decisions can have a number of adverse sustainability impacts. For example development can:-

- create local pressure to permit more abstraction to meet increased demand;
- interfere with the natural water cycle, causing changes to river flow patterns (with implications for fisheries etc.) or reducing the natural recharge to underground water resources which subsequently can reduce river flows;
- result in reduced water quality, causing damage to the environment and the possibility that some existing abstractions are no longer of an acceptable quality;
- cause a water company to import water from long distances, causing adverse environmental impacts in the process as well as long-term use of energy to transport water over long distances; and
- be significant in increasing pressure for new reservoir development, itself a major

environmental and land-use planning issue.

- Of particular concern is the planning for the 4.4 million homes that are expected to be needed by the year 2016. For example, in some areas of the South East, predicted demographic change and the limitations of current sewage treatment technology will mean that existing levels of water quality cannot be maintained. Difficult choices regarding where and how we wish to live, and the acceptable cost of wastewater treatment, must therefore be made. It is crucial that the location and infrastructure arrangements for housing developments are planned in sympathy with the water environment.

3.9.3 Catchment Management

- The Agency is committed to the concept of catchments as the basic unit for the integrated management of pressures on the water environment. The Agency currently consults and publishes its plans for catchments on a local basis via its LEAPs process. Additional focus on management by catchments will arise as a result of the proposed EU Water Framework Directive.

3.9.4 Climate Change

- The implications of possible future climate change reflect the relationship which exists between water quantity and quality. Changes in incidence and intensity of rainfall may also lead to changed impacts, including the following.

  - Changes will occur in the volume of water available for abstraction from surface and ground waters and the patterns of re-charge and depletion. This could have potentially major implications for the water supply industry and infrastructure, and for the environment, particularly in catchments where over- abstraction is already causing environmental stress.

  - Change in river levels due to reduced base flows would mean that the environment's capacity to assimilate discharges of wastewater is reduced. We would therefore either have to accept deteriorations in water quality or invest further in treatment provided.

  - If river water quality deteriorates, it may be necessary to undertake further treatment of waters abstracted for drinking purposes. This could be a significant burden in catchments such as the Thames.

  - If the change leads to intense storm events which are of short duration, followed by longer drier spells, the design of existing stormwater disposal systems may no longer be adequate to retain polluting matter discharged during storms. Intense rainfall is also likely to exacerbate the effects of diffuse pollution from land run-off and worsen impacts caused by soil erosion.

  - The first stage in meeting these threats is to determine the risk of them actually occurring, and to predict how and where they will first become apparent. Only when these judgements have been made can remedial action be planned.

3.9.5 Agricultural impacts

- Agriculture and the water environment are inextricably linked. Land management has a major influence on water quality, and also impacts on water resources. Over recent decades the intensification of agriculture has resulted in significant changes in the way pasture and arable lands are managed, with consequent impacts on the aquatic environment. Agriculture is an indispensable industry, but its activities have to be balanced against the needs of the environment. A sustainable pattern of agriculture entails land management techniques that can be perpetuated and that will protect water quality and resources. The Common Agricultural Policy (CAP) has a major impact on land use, and will continue to do so through the proposed Agenda 2000 changes. Our concerns over the impacts of agriculture are set out in our memorandum of evidence to the House of Commons Select Committee on Agriculture on CAP Reform : Agenda 2000. This also sets out our views on the revision of the CAP. We also comment on this in section 8 in response to the specific question about CAP reform.

- Irrespective of the incentives and mechanisms available under the CAP, a shift to a more sustainable pattern of agriculture will depend on the active co-operation and participation of farmers and the agricultural sector. Financial incentives will need to be supported by effective communication and dissemination of information.

3.10 Recommendations

- *The Government should show its support for environmental protection in practical ways, including use of the precautionary principle and commitment to practical methods of valuing the environment as a resource and as an intrinsic asset.*

- *Much greater attention needs to be given in planning decisions to the impact upon the local water environment and the availability of already developed water supplies. Water resources planning should be included in the planning process, perhaps by strengthening the Planning Policy Guidance. Water companies should be included as statutory planning consultees to help them plan their investment programmes.*

- *There should be resistance to any pressures which might arise (such as from considerations of the reorganisation of regional government) to manage the water environment on other than a catchment basis.*

- *Work is required to assess the likely impacts of climate change on the water environment.*

3.11 Key Points - Water Resource and abstraction issues.

- Sustainable management of water resources implies that:
  - the effects of abstraction do not irreversibly harm the environment; and
  - abstracted water is used beneficially.

  Associated with each of these requirements, we have identified opportunities for improvements which could be made to further the objectives of sustainability in respect of water resources.

3.11.1 **Lack of control of certain abstractions**

- Current water resources' legislation is generally compatible with the principles of sustainability in that most authorisations to abstract water from rivers, or from underground strata, require the Agency to ensure that the consequences of the abstraction do not result in undue harm to the water environment. If the Agency is not satisfied with the impact of abstraction, it will refuse the application or require appropriate modifications to the proposal.

- Deficiencies in the legislation result in a lack of control of some forms of abstraction, such as dewatering of mining operations, certain abstractions by drainage authorities for supply purposes, abstractions by navigation authorities, and abstractions for irrigation using trickle or drip irrigation techniques.

3.11.2 **Over-abstraction**

- Some unsustainable abstractions exist due to licences of right which were granted to abstractors during the 1960's. These have caused damage to the environment through the significant lowering of natural flows in rivers or the drying out of wetlands. The Agency has powers to vary or revoke damaging abstractions, but is liable to compensate licence holders for loss or damage arising from the change in their licensed entitlement. This may be a way forward for a small number of problem abstractions, but some 20,000 licences of right currently exist. In addition, we currently have no powers to control where used water is returned to the environment, although this can be crucial.

3.11.3 **Value of water resources**

- Charges are currently set at a level specifically to recover the costs of our water resources duties. This results in relatively low charges and generally does not give an incentive for abstractors to think seriously about their water use. If charges were increased to economic levels which took account of the value of the environment, it would give incentives for abstractors to review (and reduce) their use of water resources. Sustainability benefits could arise in a number of ways, such as:

  - a reduction in water losses within abstractors' supply systems, such as leakage;
  - greater incentives to directly re-use water resources, such as water use in process industries; and
  - reviewing whether the business being carried out is viable when viewed against the 'true' cost of raw water.

  Each of these benefits would result either in a reduction in the abstraction of raw water from the environment, or in the opportunity for the water saved to be put to more justified purposes.

3.11.4 **Value of water supply**

- End users of water resources should have incentives which influence behaviour in their use of water. Abstractors who are end users will be influenced by the level of abstraction charge, but where there is an intermediary supplier, such as a water company, their end users should be in a position to value their marginal use of water. Whereas nearly all commercial and industrial businesses pay according to the amount of water that they use,

this is not the case for the majority of domestic customers. The Agency's views are set out in detail in our response to the Government's recent paper "*Water Charging in England and Wales - a new approach*"

3.11.5 **Water Efficiency in the Home**

- Demand forecasts suggest that almost all of the increased demand for water in the next few years will be for domestic rather than industrial use. We believe greater attention should be paid to ensuring that low demand appliances and facilities are incorporated into new homes as a matter of course and their use in existing homes speeded up. Revised water regulations (see 3.11.7 below) will help in this process, and the introduction of domestic water metering will help make more apparent the savings that such low demand devices can bring.

3.11.6 **Water Saving Trust**

- Due to the way the water industry is organised, water conservation and demand management are responsibilities shared among a number of organisations. Progress will only be made if these organisations take on specific roles and responsibilities to promote water conservation and demand management.

- There has been considerable support for the formation of a body which could act as a focus in taking these matters forward. The Agency's predecessor body, the NRA, put forward suggestions for a Water Conservation Committee in its publication *'Saving Water'* and further suggestions were made by the House of Commons Environment Committee in 1996 in connection with their inquiry into 'Water Conservation and Supply'. We have recently published a summary of water conservation initiatives in the UK, which highlights a variety case studies for saving water.

3.11.7 **Water Regulations**

- DETR published, in 1996, a consultation paper on water regulations, stemming from the work carried out by the Water Regulations Advisory Committee. The committee was set up to advise Government on requirements for plumbing installations and fittings to be included in the Water Regulations. The Agency welcomed the Committee's increasing interest in water efficiency as well as public health aspects.

3.11.7 **Minimum Acceptable Flows**

- For the past 35 years there has been provision within water resources legislation for the setting of statutory minimum acceptable flows or levels (MAFs). A MAF is required to be set having regard to requirements to protect the aquatic environment, the character of the inland water and its surroundings, the rights of existing lawful uses, and the water quality objectives of the water concerned. Proposals for a MAF are made to the Secretary of State following widespread consultation. So far, no statutory MAFs have been established, but conditions have instead been placed upon individual abstraction licences which operate in a similar ways to the concept of MAFs.

3.12 **Recommendations**

- *The legislation should be amended to include mechanisms which would bring all abstractions under appropriate forms of control.*

- *DETR should make proposals in their review of the abstraction licensing system to enable problems caused by licences of right, and where used water is returned to the environment, to be resolved in a more straightforward and equitable way.*

- *The abstraction of water resources should be charged at the economic rate. Although the Agency recognises the difficulties in placing a value on the environment, steps should be taken to introduce incentive charges which include allowances for environmental impact. These issues should be addressed in the Government's forthcoming consultation water resources.*

- *There should be a progressive introduction of domestic metering. There is a strong case for general metering, not only for some categories of water use, but for all use where water resources are particularly stressed. The Agency recognises the issue of metered charges for low income families, but is of the view that opportunities exist to protect such users from undue financial burdens.*

- *The new Water Regulations should set vigorous water efficiency standards in line with current knowledge of what can be practically achieved and maintained.*

- *Statutory Minimum Acceptable Flows should be set to make appropriate protection of the aquatic environment more practicable and make water resources' management decisions more subject to open debate and consultation. Scientific and other elements are not simple, but the Government is invited to consider with the Agency how MAFs might now be established.*

3.13 **Key Points - Water Quality Issues**

- The Agency's priorities for the improvement of freshwater quality are set out below. However these need to be set within the context of an over-riding need to develop an integrated approach to management of the water environment. The Agency will obviously have a major role to play in such a strategy, but it must go beyond the simple management of river basins and be capable of prompting action to prevent or remedy pollution from both point and diffuse sources through action in a variety of spheres - regulation, economics or education - in order to achieve desired goals. This will require the involvement of a wide range of organisations, including Government departments (not only MAFF and DETR but, if tools such as economic instruments are to be used, also Treasury and the DTI) as well as statutory agencies, local and regional government, and the private sector.

3.13.1 **Protection of High Quality Rivers and maintenance of current quality in others**

- The primary concept underlying such an approach should be "no planned deterioration". The initial priorities should be improvement of poor quality rivers and the protection of special sites.

- There are few, if any, pristine rivers in the UK. But there are a large number of very high quality rivers supporting a wide range of native wildlife, including fish, especially salmon and trout. The ongoing protection of these high quality waters must take highest priority and is reflected in the general policy of 'no deterioration' in use by the Agency when discharge consents are reviewed. The broader application of this policy also provides protection for other waters.

- Many discharge consents do not adequately reflect the needs of the river. Although river quality may be maintained by dischargers treating effluent to a higher standard than legally required, additional protection is needed and in some cases discharge consents may need tightening to ensure that the current good quality is secured for the future.

3.13.2 **Preferred Future Water Quality Planning Framework**

- There is currently no coordinated water quality planning base across the UK. Although the Agency continues to use a development of the National Water Council scheme of objectives, in combination with the statutory requirements provided by EU Directives, we find that the current informal guidelines can be deficient when dealing with complex and potentially conflicting priorities.

- The protection of all waters in the UK would benefit from a strategic water quality planning base developed from a review of the current pressures. The Agency continues to develop the basic building blocks for a strategic plan in England and Wales, and the current water industry asset planning round may present an opportunity for a clear statement of priorities which could provide a robust planning base for future water quality improvement. This strategic approach to planning would also provide opportunities to identify where educational or economic issues offer advantages beyond a strictly regulatory approach to secure desired outcomes.

- The proposed EC Water Framework Directive offers a focus for such a strategic and integrated approach to water quality planning. The Directive is seen as being entirely consistent with the UK approach, and may provide the mechanism for the future security and sustainability of the aquatic environment. The Agency is keen to promote the further development and ultimate adoption of the proposed Directive.

3.13.3 **Protection and Enhancement of Designated Conservation Sites**

- Some waters are of recognised conservation value and have specific protection under SSSI legislation or through the EU Habitats Directive. Once again the first priority is to ensure no further deterioration; however, some sites have already suffered some deterioration and improvements in water quality or quantity are required to safeguard or enhance their conservation status.

3.13.4 **Improvements to Meet River Quality Objectives and Requirements of the EU Freshwater Fish Directive**

- The basic chemical quality of waters has been improving steadily over the past twenty years. It is reported via the Agency's General Quality Assessment (GQA) scheme. Much

of this improvement followed plans to meet non statutory River Quality Objectives set in 1976, which have recently been translated into the Rivers Ecosystem (RE) Classification System. These objectives are subject to review and continued improvement of the poorest rivers remains a high priority. Waters designated under the EU Freshwater Fish Directive enjoy a basic level of protection. We believe there is now a strong case to review the extent of designations, to acknowledging current quality, and identify where reasonable improvements would consolidate and protect fisheries. This would provide additional protection for other wildlife, including some priority species under the UK Biodiversity Action Plan. This would be entirely complementary to the planning base provided by the RE system and would add EU statutory force to the process.

3.13.5 **Reduction of Dangerous Substances**

- The reduction and elimination of persistent and dangerous substances in the freshwater environment is a continuing priority, and protection is being driven by a number of UK and EU initiatives, regulations, and formal EC Directives. The Agency wishes to continue with stringent controls to minimise the presence of these substances. We welcome the development by DETR of a Sustainable Chemical Policy as an opportunity to establish proper control over substances through product development, approval, and ultimate use in the environment.

3.13.6 **Requirements of Other EC Directives**

- There is a suite of EC Directives which provides a statutory basis for improvement. These facilitate water quality improvement, either though improvements in sewage treatment (eg. Urban Waste Water Treatment Directive (UWWTD)) or by providing Environmental Standards (eg. Surface Water Abstraction Directive). These statutory requirements may be less well targeted than the UK specific standards, but have been the main focus for improvements in recent years and should be used to best advantage. As with the Freshwater Fish Directive, they provide additional protection for a wide range of aquatic wildlife.

3.13.7 **Aesthetic Problems**

- Many of the public complaints reported to the Agency relate to sewage derived solids, plastics in rivers, and other aesthetic problems, including coloured effluents. The prevention of solid matter entering rivers from continuous discharges remains a high priority, but problems caused by intermittent events at times of storm may be more difficult to solve. Most of these pollution events relate to old, under maintained, or undersized sewerage systems. There is currently a programme of improvement underway as a result of the UWWTD but more expenditure is required to maintain and improve the situation.

3.13.8 **Nutrient Enrichment**

- The issue of eutrophication and the need for nutrient removal or control is a priority, especially for specific vulnerable sites and catchments. With English Nature and the Countryside Council for Wales, we have drawn up priority lists for improvement, including sites notified as candidate SACs or SSSIs. A number of rivers and lakes require reductions in phosphate and/or nitrate in order to prevent algal blooms and associated

water quality problems. To assess the most appropriate remediation option, an understanding of the issues in individual catchments is required. Nutrient sources may derive from agriculture and sewage effluent and controls over both may be required to bring about improvements. But the issue of diffuse source inputs and the possible requirements for land use controls imposes additional complexity. We are currently developing a strategy to address these issues.

3.13.9 **Public Health Issues**

- The long-standing UK policy to use river systems as a carrier for treated sewage effluent has produced a number of conflicts, particularly with regard to public health. Under normal conditions risks are considered minimal, though public concern is growing. The primary concern is about concentrations of microorganisms in rivers, although they are not only derived from sewage effluent. The levels of treatment provided by the water companies for water abstracted for drinking should ensure the supply of wholesome water to households (the responsibility of the Drinking Water Inspectorate in accordance with the EC Drinking Water Directive), but this is not the only issue. There are a number of river and lake sites where swimming is a long established practice or where local authorities have encouraged swimming or other contact water sports. There is a case to be made for a number of these sites to receive increased protection, and thus possible disinfection of sewage effluents to improve water quality. Sites now designated under the EC Bathing Water Directive include inland sites at the Serpentine and Windermere. This Directive only applies to bathing waters, and has not been extended to other uses.

3.13.10 **Abandoned Mines**

- Both coal and metals have been mined for centuries in Britain but major production did not start until the industrial revolution. These industries have been in decline for the last few decades and the closure of collieries and, in very recent times, the last tin mine, have led to existing environmental degradation and the risk of further problems in the future. The visual pollution legacy of coal mining is often seen as "red" rivers. Other forms of mineral exploitation such as mining for tin, lead and other metals have led to serious water pollution, particularly from toxic metals and acid waters. In addition to discolouration, this results in toxic effects on fish and other wildlife, and habitat damage through the smothering of spawning gravels.

- At present the accepted means of treating mine discharges, whether metalliferous or from abandoned collieries, are either to actively pump the mines and treat the discharges to neutralise the waters, and/ or to use passive wetland systems. Active pump and treat systems such as those seen at Wheal Jane and in the Durham Coalfields are both expensive to install and to maintain, and the cost of doing so indefinitely raises serious questions over the sustainabiltiy of these methods. Passive wetland treatment systems are still the subject of extensive research globally, and whilst they can bring about great improvements in water quality the area of land they require raises problems in terms of land availability, suitability and cost. While not insuperable, these problems are likely to increase due to the likelihood of future outbreaks of contaminated water from recently abandoned mines. It is difficult to predict where these will occur, but it is possible that they will affect relatively pristine waters valued for their potable, industrial and agricultural supplies as

well as for amenity and recreation purposes. At present the scale of likely discharges and their degree of contamination is unknown.

- In the event of such outbreaks, the Agency will be in the forefront of deciding whether to accept long term deteriorations in water quality and environmental damage, or to take on the potentially significant expense involved in treatment. Our ability to select the most sustainable solution should not be compromised by short term financial or other pressures.

3.13.11 Sustainable Urban Drainage

- Drainage from roads, and industrial and residential areas, is known to cause poor quality rivers. Roads, drives, and industrial sites are all contaminated with oils, rubbers, chemicals, muds and other particles such as salt and other de-icing agents which may be mobilised by rainwater and discharged into surface waters. Misconnections can lead to discharges from toilets and domestic appliances discharging to surface water drainage systems rather than foul sewers and similarly the deliberate disposal of oils and chemicals down road drains can lead to direct discharges if these are connected to surface water systems. Accidental spillages likewise will drain to the surface system. All these sources of pollution can have both chronic and acute impacts, sometimes leading to major fish kills over several kilometres of river.

- These impacts can be reduced through good practice and design. There are a number of techniques that can be employed ranging from changes to the design of drainage systems to the installation of treatment facilities prior to discharge. Some structural techniques have the added benefits of amelioration of flood discharges, reduction of peak flows, and the maintenance of stream flow during dry weather. Notwithstanding their primary purpose, they can also provide benefits to wildlife and amenity. To bring about a more widespread adoption of these methods the regulatory agencies need to work together with planning departments, the construction industry and water industry. The Agency will work through its Local Environment Agency Planning process (LEAPS) to ensure that drainage from roads and urban areas is designed in a cost effective and sustainable manner.

3.14 Recommendations

- *DETR should confirm the principle of "no deterioration" as the basis for the sustainable management of water quality.*

- *A strategic planning framework for water quality should be developed as an adjunct to, or in preparation for, implementation of the proposed EC Water Framework Directive.*

- *Investment to deal with poor water quality caused by point source discharges must be secured.*

- *Investment to safeguard designated conservation sites must be secured.*

- *The Government should continue to apply and extend designations under EC Freshwater Fish Directive.*

- *There should be continued pressure (through all available initiatives) to reduce emissions of toxic and persistent (dangerous) substances.*

- *The DETR's development of a Sustainable Chemical Policy is strongly endorsed.*

- *There must be investment to reduce aesthetic pollution*

- *Mechanisms should be adopted to enable the implementation of strategies for nutrient control which recognise the complexity of the issues surrounding eutrophication.*

- *There should be greater recognition of the use of inland water bodies for bathing and water contact based recreation and measures adopted to safeguard their continued use.*

- *Mechanisms should be developed to ensure that the most sustainable options are adopted for dealing with pollution from abandoned mine workings.*

- *Measures for sustainable urban drainage should be more widely adopted and implemented.*

3.15 Indicators

The success of actions to improve the quality of waters can be estimated by assessing the status of waters in relation to targets set for them.

The Agency has developed its own GQA system for assessing water quality based on different 'windows' (chemical, biological, nutrient, aesthetic) and will continue to do so. This forms part of the wider *Viewpoints* approach to assessing the state of the environment, which incorporates the need to comply with EC and other standards and targets.

4. Planning and Local Issues (paragraphs 41, 47, 49, 59)

4.1 Question

Paragraph 41 ***We would be interested in views on :***

a) How best to incorporate broader objectives of sustainable development within the planning system, in particular how best to incorporate the social dimension?

4.2 Key Points

- In general, the planning system is land centred rather than people centred, and Development Plans do not currently take a sufficiently holistic approach. They should offer a vision for the future of the locality and indicate the stages needed for fulfilment of the vision. Social themes (health, employment, prosperity, leisure, access etc) should replace development topics (retail, residential etc), with strategic issues being identified and addressed by development solutions on key sites.

- The Agency is committed to producing a series of regional environmental plans jointly with local authorities and other regional stakeholders on a Government Office Regional basis. We will provide much of the environmental information and methodology on which such plans will be based. We envisage these plans will provide a sustainability framework for the plan - led hierarchy of RPGs, Structure Plans, Local Plans and development proposals. At the sub regional level informal local sustainability plans could also be jointly produced to interpret local issues within the regional framework, providing an integrated sustainability base for development plans. The regional plans will draw on LEAPs, and other non -statutory plans such as biodiversity plans and Countryside Character/Natural Areas to provide empirical data and identify issues.

- The current 'predict and provide' approach for housing and employment allocations does not allow a flexible approach to planning standards, based on local communities' needs, to be made. Mechanisms should be developed that recognise the importance of community involvement in policy making, and give parish and town councils a real role in the process of creating development plans, within the regional sustainability framework identified above.

4.3 Recommendations

- *Through PPGs ensure that Development Plans become people centred rather than land centred, and take a more holistic approach.*

- *The production of regional sustainability frameworks to inform the hierarchy of RPG, Structure Plans, Local Plans and development proposals, should be encouraged.*

- *Mechanisms should be developed that provide greater involvement of communities in decision making.*

Question

4.4 Paragraph 41 b*) **Practical examples from local authorities and local communities for implementing sustainable development principles at the local level.***

4.5 **Key Points**

- We have been impressed by the work of Birmingham City Council in defining six "quarters" around the city centre with associated strategic issues and key development solutions, in their City Plan. We have also been impressed by the "options approach" taken in the Swindon development study by the Architecture Research Forum.

Question

4.6 Paragraph 41 **c)** ***What indicators are likely to be most suitable for assessing the performance of planning policies in meeting sustainable development objectives***

4.7 **Key Points**

- Indicators can only <u>assist</u> in assessing the performance of planning policies; they are not in themselves a sufficient test.

- Indicators should reflect the people centred emphasis of sustainable development, measuring the availability of environmental social and economic goods per person, and on the negative side the consumption of natural resources and emission of wastes and pollutants *per capita*. Environmental goods could include warmth, clean tap water, public open space, mobility. Useful comparisons could then be made of the number of units of natural resources used up to deliver environmental goods per person within the plan area.

- Sustainability Indicators could be developed at the strategic level, to test policies, and at the project level to test the sustainability of individual projects.

Question

4.8 Paragraph **41d)** ***What patterns of development are likely to prove most sustainable.***

4.9 **Key Points**

- There should be an emphasis on meeting societal needs locally, and to promote effective public transport options; employment and retail activities need to be concentrated. Intensification of land use requires good service support and higher quality building and design for it to be acceptable to the public.

Question

4.10 Paragraph 47 ***We would welcome contributions to the debate on the future of regeneration initiated by the Deputy PM in June 1997, views on how local communities can be encouraged to contribute to local regeneration, and views on what innovative forms of finance and support might be developed.***

4.11 **Key Points**

- We have been impressed by the workshop weekends facilitated by Southampton City Council, successfully engaging local communities in appraising options for the regeneration of their locality.

- For regeneration to be successful it needs to be accompanied by other improvements in local services such as health and education, and improvements to the local environment.

4.12 **Question**

Paragraph 49 ***We would welcome views on measures to tackle rural deprivation and on ways to combine development and conservation in smaller rural communities.***

4.13 **Key Points**

- We see a need for a range of measures operating at European, national and local level. CAP reform (discussed further in section. 8) needs to be targeted to increasing rural employment, and national employment and town planning policies need to facilitate diversification and the provision of affordable housing for those who work in rural areas. At the same time, local institutions such as Young Farmers, WI and parish councils need reinvigorating and new local markets need to be developed for rural goods and services.

Question

4.14 Paragraph 59 ***We would welcome your views on:***

a) How can we encourage regional and local decision makers to adopt innovative solutions for sustainable development.

4.15 **Key Points**

- Moral exhortation is not enough. There has to be an appeal to self interest via monetary or other benefits. In the context of planning, decision makers at regional and local level tend to be developers and local authorities. Any monetary support for development should be conditional upon the project being subject to a sustainability appraisal which demonstrates that the project meets defined sustainability criteria.

4.16 **Recommendation**

- *There should be a form of ' cross compliance' for development, to ensure that any development aid is conditional on the proposals meeting defined sustainability criteria.*

Question

4.17 Paragraph 59 *b)* ***What more could be done to give sustainable development including local agenda 21 a higher profile in local communities and how to promote more well informed and effective participation by citizens in local decision making.***

4.18 **Key Points**

- LA 21 groups should be more involved as partners in the production of development

plans. The deposit draft of the Hampshire Structure Plan was subject to a sustainability assessment carried out by the Hampshire LA 21 group, at the request of the Inspector.

- Facilities contributing to sustainable development (e.g. composting and recycling plants) are often viewed by local communities as bad neighbour development and thus subject to NIMBY. Industry and Government need to foster new technology capable of reducing the adverse impact of such facilities, and enhancing the positive contribution they can make to local employment.

- More well informed and effective participation in local decision making will be encouraged by a sense of empowerment - a genuine sense of working and deciding together, by providing easy access to environmental information, and by education.

- The Agency is seeking to involve local communities in the production of Local Environment Agency Plans, by participation in stakeholder groups to scope and prioritise local issues, by working in partnership with local groups on joint projects, and by general consultation with the full range of local interests (see case study, section 2.9). LEAPs will be placed on the Internet so that anyone can access the plan and the environmental report that underpins it.

5 Energy Policy and Air Quality (paragraphs 67,69)

Introduction

5.1 The information and recommendations provided below are set against the background of the Agency's regulatory responsibilities under the Environmental Protection Act 1990 with regard to Part A processes, and the EC Directive on Integrated Pollution Prevention and Control. We have set out our views on particular aspects in evidence given to the Trade and Industry Select Committee on the Agency's regulation of the power generation industry, the enquiry by the House of Lords Committee on Science and Technology on the Management of Nuclear Waste, and our response to the Government's consultation on Developing an Integrated Transport Policy.

Questions

5.2 Paragraph 67 a) ***What action should be taken in the short term to ensure that the environmental and social goals of energy policy can be achieved at the same time as economic objectives are met?***

b) ***What should the Government, industry or others be doing to make sure that the environmental impacts of the energy supply industry do not increase again in the 21st century?***

Paragraph 69 ***We would welcome views on the priorities for Government in considering further policies to tackle air pollution.***

5.3 **Key Points**

- The creation of a long-term sustainable energy policy for the UK is at the heart of many of the issues raised in this consultation process. Regulation of individual power generation sectors, and the unregulated impacts of other activities such as road transport, make attainment of sustainable development in this area unlikely.

- The development of such a policy is hampered by a range of factors, and the recommendations set out below seek to address some of these. Notwithstanding this, there are a limited number of fundamental issues which are important to note, as follows.

  - Techniques for comparing the impacts from energy systems are only now being developed. These will be critical in determining the balance of the UK's future energy production portfolio.

  - Economic valuations of the environment will be essential if the true costs of different systems are to be determined. This will apply both in the context of BPEO/BATNEEC, but probably more important, in cross-sectoral comparisons.

  - Social issues, particularly when considering nuclear power generation, will be important in any future energy policy. Anecdotal information seems to indicated that the public is averse to the risks associated with nuclear power, but does not relate it to reducing the risks of causing climate change.

- As further scientific evidence emerges about the likelihood of climate change, links between poor air quality and health impacts, and of chronic environmental damage arising from air pollution, the importance of this area will increase significantly.

- Environmental awareness in the sphere of road transport as a contributor to both poor air quality and to climate change has grown considerably, and the momentum will be maintained as a result of the Government's White Paper on Integrated Transport. However, the same cannot be said for emissions from power generators, or other regulated sources, where awareness amongst the public appears to be very low. This contrasts considerably with the Agency's findings that the public are indeed concerned about local air quality. Clearly the link between source and impact has yet to be fully understood by the public.

5.4 Recommendations

5.4.1 Energy - Short Term Actions

Emissions Control

- *The tax system should be adjusted to encourage greater use of public transport and, where private transport is used, more energy efficient and less polluting vehicles.*

- *The use of park and ride schemes coupled with flexible working patterns should be encouraged to reduce emissions from road transport.*

Demand Management and Energy Efficiency

- *The Secretary of State should consider giving a direction to the Agency under Section 7 of the Environmental Protection Act 1990 to include conditions on maximising efficiencies in the generation and use of energy within authorisations. This could be extended beyond IPPC (which is in itself an advance) to areas such as the water industry and SMEs.*

- *The tax system should be adjusted to encourage greater energy efficiency. In particular, VAT could be reduced to the minimum permitted under the single market arrangements for energy efficient lighting, appliances, insulation, and heating systems. Equally, it could be raised for less efficient systems.*

Shift in Supply Options

- *Bidding into the electricity pool should be altered to ensure that the most efficient and least environmentally-damaging methods of generation come in ahead of less advantageous methods.*

Other Risk Reduction Options

- *Economic incentives should be provided for organisations participating in, and implementing the results from, waste minimisation projects, where such results would reduce amongst others demand for energy.*

- *To assist consumer choice, appliances should be clearly labelled as to their energy consumption.*

- *The concepts of energy efficiency, environmental protection, and sustainable development should be incorporated more fully at all levels of the National Curriculum.*

5.4.2 Energy - Future Actions

Sustainable Energy Policy

- *To ensure that similar environmental impacts do not arise again, the Government should establish and implement a sustainable energy policy. This should be based around security and diversity of supply, but with the emphasis moving towards renewable sources of energy, and widespread use of public transport. The policy should be developed in line with the Government's guidance on "Environmental Appraisal for Government Departments", and "Risk Assessment and Risk Management for Environmental Protection".*

- *Energy generation processes should be required to make full use of available heat; local combined heat and power schemes should be encouraged subject to air quality targets.*

Role and Promotion of Renewable Sources

- *The EC should be asked to remove the current 50%-public funding constraint on R&D for environmentally-beneficial technology. The Agency would then wish to see significant extra R&D resources being targeted at renewable sources of energy.*

- *Government should provide incentives for the generation, promotion and use of energy from renewable sources. Where possible, such sources should be local to the use.*

Promotion of Energy Efficient Technologies

- *Long-term targets for the energy efficiency of domestic appliances should be established and fiscal measures used to drive technological development.*

Quantifying the Real Impacts and Costs

- *At present the environmental impact of energy production is only partially assessed, for example against critical loads criteria. This needs to be expanded to determine the true impacts such as habitat degradation and acidification, changes in biodiversity, impact on human health and contribution to the eutrophication of the North Sea. Risk-based targets for these real impacts need to be established in order for regulation to be more effective.*

- *A more robust method for assessing the true cost of energy production, distribution and use should be established. This should include the social impact on fuel generating communities, social costs of changing transport modes, and health costs of poor air quality.*

Consistent Comparisons of Fuel Cycles

- *A consistent approach to assessing the life cycle impacts of all generation sources should*

be developed and implemented. The current discrepancy in the level of assessment required for disposal of spent nuclear fuel, and heavy metal-containing fly-ash from fossil fuel power stations, needs to be addressed.

- *Clear criteria should be established by which renewable sources of energy can be compared with more traditional methods. For example, the production and disposal of photovoltaics result in compounds entering the environment for which the Agency is then responsible for regulating. Equally, the connection of windfarms to the National Grid results in damage to the environment from cable laying, and windfarms can ruin landscapes and cause unacceptable noise. These issues are not sufficiently considered.*

Planning for Sustainable Homes and Communities

- *The need for many new homes provides an opportunity to develop sustainable communities where energy use is minimised, both within the home and on external uses such as transport. However, drives for energy efficiency should not just be directed at new homes, and there is far greater potential for savings by improving the standards of the existing housing stock. Building regulations should be regularly revised to reflect best practice, and revised planning guidance for such communities should be prepared.*

5.4.3 Air Quality

Environmental Policies

- *The Agency would wish to see measures of environmental performance for appropriate industry sectors introduced in respect of their contribution to air quality. The policies which may result would then be transparent in the eyes of the public.*

- *The EU Acidification Strategy should have at its core environmental protection criteria which relate to other legislation such as the EC Habitats Directive and EU Biodiversity Strategy. Critical loads per se are not an endpoint in their own right.*

Socio-economic Policies

- *Further substantive work is required to determine the socio-economic impacts of poor air quality, such as the impact on the NHS, and Social Security budgets. This would flow from the consistent implementation of the Government's guide to "Environmental Appraisal in Government Departments", which appears to have been ignored in the production of the National Air Quality Strategy.*

Transport Policy

- *Transport is a major contributor to poor air quality. This should be taken fully into account in taking steps to minimise the use of private transport within an integrated transport policy. The full external costs of each form of transport should inform the development of such a policy.*

Policy-linking

- *As the Agency's evidence to the Trade and Industry Select Committee on the ESI review illustrates, a Sustainable Energy Policy is only likely to be effective if linked to an Integrated Transport Policy. The control of pollutants such as CO_2, NO_x and particles will rely on effective cross-sectoral policy implementation.*

Technology-based Policies

- *Policies should be put in place to ensure that technology for controlling the emissions from sources such as landfill sites and agriculture are implemented with equal priority. The control of landfill gas flares, and the technology for caking of slurry, will reduce emissions.*

5.6 **Indicators**

The Government has already put considerable effort into providing statistical information on energy demands and production. In particular, the information presented in "*Digest of UK Energy Statistics 1997*" provides important indicators of energy generation. In addition, the DETR has funded the air quality monitoring network, information from which is provided by NETCEN. This network provides broad-level information on the state of local air quality. Notwithstanding these, there is a considerable lack of information on the impacts of energy and air quality, in particular the damage caused to the health and environment of the UK.

The Environment Agency would recommend that Government establishes a series of indicators along the lines outlined below, and report on progress through the existing "*Digest of Environmental Statistics*".

Impacts of Energy

i) Demand

% reduction in demand for electricity on 1990 levels

% of electricity demand met from renewable sources

ii) Emissions

% reduction of CO_2 levels c.f. 1990 levels (Kyoto agreement)

% reduction in SO_2 levels c.f. 1990 levels (UNECE Second Sulphur protocol)

iii) Impacts

% of Global warming potential of emitted CO_2 levels c.f. 1990 levels

% of UK land where critical loads are exceeded

Impacts of Air Quality

i) Sources

% change in vehicle km on 1990 levels

% change in authorised sources of emissions on 1990 levels

ii) Emissions

% of NO_x, SO_2 and PM_{10} emissions from transport sources

% of NO_x, SO_2 and PM_{10} emissions from authorised emissions

iii) Impacts

- number of exceedances of the EC ambient air quality Directive
- number of air quality-related health cases referred.

6 Marine Pollution and Fisheries (paragraphs 73, 74)

Introduction

6.1 The specific questions relating to marine pollution and fisheries are restated in full in sections 6.2 and 6.5 below. For clarity of response the questions have been broken down into components and key points related to each of these identified.

Question

6.2 Paragraph 73 ***The main sources of marine pollution include dumping, activities on land, shipping and offshore activities. We have now ruled out the resumption of dumping of UK radioactive waste in the sea. Our long-term general objective is to cease discharges of hazardous substances to the seas around our shores. We will make every endeavour to move towards this objective, based on a careful assessment of risks, costs, and benefits. On shipping, we shall continue to promote more effective regulation and enforcement through the International Maritime Organisation and better collective implementation in Europe. On the offshore industry, we are considering with the industry, how environmental regulation can be made more consistent and transparent. We would welcome views on how these objectives can be addressed.***

6.3 Key Points

6.3.1 ***The main sources of marine pollution include dumping, activities on land, shipping and offshore activities.***

- The marine environment is the ultimate sink for many of the pollutants and substances emitted or discharged into other parts of the environment. However only a proportion of this pollution can be directly controlled, given that significant quantities arise from diffuse sources such as agricultural runoff, atmospheric deposition, leachates, and other land-use practices. If real improvements are to be made in protecting the marine environment, then Government must ensure that policy making at every level is fully integrated across all media. As discussed in sections 8, a formal requirement to undertake environmental assessments of policies would help in this process.

6.3.2 ***We have now ruled out the resumption of dumping of UK radioactive waste in the sea.***

- A consensus is required between the public, Government and it's regulatory Agencies and the scientific community to support selected options for radioactive waste management and, where necessary, disposal of wastes which embraces a clear recognition that every option, including storage where appropriate, has environmental consequences. Nuclear waste management over the past 20 years provides a clear lesson that no progress on disposal will be made without achieving such a consensus.

- In order properly to safeguard the environment, it is essential to take account of the harmful effects of pollutants on species other than man, and we believe there are gaps in the approach presently adopted in some areas, particularly in relation to radioactive

substances, which Government should seek to rectify.

6.3.3 ***Our long-term general objective is to cease discharges of hazardous substances to the seas around our shores.***

- A combined approach is required to achieve a continual reduction in the overall input of hazardous substances to the marine environment, including:

  - improved overall control of new substances, as embraced by the emerging DETR Sustainable Chemical Policy;
  - cessation of the use of a number of priority substances;
  - reduction in the input of all other hazardous substances by a vigorous and continuous pursuit of BATNEEC and BPM;
  - reduction in the diffuse pollution inputs through managing changes in land use patterns, changes to agricultural practices etc.; and
  - direct controls on other products and processes which indirectly impact the marine environment.

  In view of the diffuse, and often natural, sources of some substances classified as hazardous, we believe it will be difficult to achieve the general objective "to cease discharges of hazardous substances to the seas around our shores".

6.3.4 ***We will make every endeavour to move towards this objective, based on a careful assessment of risks, costs and benefits.***

- The present regulatory regime does not fully recognise the importance of non-use related benefits and associated wider ethical issues which are often very important in arriving at decisions which can affect the marine environment. The extent to which these issues are taken into account is a matter for society as a whole and will include a level of political judgement to reflect societal values. Government must therefore provide clear guidance to inform regulatory decisions.

- A vigorous application of the precautionary principle is particularly important when safeguarding the marine environment because the risks are often not understood due to insufficient scientific information on marine processes. Government should ensure that the more important knowledge gaps in relation to the biological effects of hazardous substances in the marine environment are filled.

- A precautionary approach should be adopted in relation to sewage disposal by siting discharges away from use-areas wherever practical, whilst at the same time opportunities to adopt lower levels of treatment, which demand less resources, materials, and power should be pursued wherever possible.

6.3.5 ***On shipping, we shall continue to promote more effective regulation and enforcement through the International Maritime Organisation and better collective implementation in Europe.***

- We support Government efforts to pursue measures to regulate and mitigate the environmental impact of the shipping industry. However we accept that much still needs to be done internationally and that progress may well be slow; Government must therefore ensure that emergency planning, particularly where it involves Local Authorities, is properly funded and organised so that the competent authorities can respond in a coordinated and effective manner. The national contingency plan should include provision to coordinate the assessment of the environmental impact arising from any marine accident, in order to identify the full costs of an incident which in turn will better inform future decisions or additional mitigation measures.

6.3.6 ***On the offshore industry, we are considering with the industry, how environmental regulation can be made more consistent and transparent***

- Government should ensure that both the offshore industry and the public are aware of the procedural aspects of all regulatory regimes, which should be as simple as practical. Decision making processes should be transparent and, wherever possible, involve the wider community in order to build confidence in the decisions taken.

- The decommissioning of offshore structures is complicated by the current lack of international agreement as to what may or may not be left at sea. This situation is further exacerbated by the lack of planning during the construction phase for the eventual decommissioning of such installations. Government should ensure that such structures fall within existing pollution control regimes wherever possible and should also provide incentives to encourage recovery and/or reuse of structures, for example as offshore wind farms.

6.4 **Recommendations**

- *Policy making across all media should be fully integrated to take into account environmental impacts that may be distant from the source of activity. There should be a formal requirement for policies to be subject to environmental assessment.*

- *A consensus should be developed between the public, Government and it's regulatory agencies and the scientific community to support selected options in respect of the management and disposal of nuclear wastes.*

- *Criteria for the radiological protection of species other than man should be developed, nationally, underpinned by the necessary scientific understanding.*

- *A combined approach, entailing improved control over new substances, phasing out some priority hazardous substances, and reducing the input of others from both point and diffuse sources, should be adopted in order to achieve a continual reduction in their total input to the marine environment.*

- *The precautionary principle should be applied to safeguarding the marine environment because the risks are often not fully understood. In particular, Government should ensure that the more important knowledge gaps in relation to the biological effects of hazardous substances on the marine environment are filled.*

- *A precautionary approach should be adopted in relation to sewage disposal by siting discharges away from areas of high usage wherever practical, whilst at the same time permitting lower levels of treatment wherever possible.*

- *Government must ensure that emergency planning in respect of marine shipping is properly funded and organised so that the competent authorities can respond in a coordinated and effective manner. The national contingency plan should include provision to coordinate the assessment of the environmental impact arising from any marine accident.*

- *Government should ensure that both the offshore industry and the public are aware of the procedural aspects of all regulatory regimes. Decision making processes should be transparent and wherever possible involve the wider community in order to build confidence in the decisions taken.*

- *Plans for offshore installations should include arrangements for their eventual decommissioning, and Government should ensure, if necessary through international agreements, that offshore structures fall within existing pollution control regimes. It should also provide incentives to encourage recovery and/or reuse of structures.*

Question

6.5 Paragraph 74. ***We are working with partners in the Community to reform the Common Fisheries Policy to achieve more effective fisheries conservation, thereby safeguarding the livelihood of those who depend on the fishing industry and benefiting the wider marine environment. We would welcome your views on the best ways to take this policy forward.***

6.6 **Key Points**

- Fish stocks are key biological indicators of environmental quality, represent a national conservation asset, and the fisheries they support have economic, social and heritage values.

- The essence of sustainable fisheries management is the control of exploitation and management of environmental quality generating maximum sustainable catches and social benefit. Sustainable, target-based management should be based on effective monitoring and assessment which evaluate economic and social measures of fishery performance as well as stock status.

- The true economic, social, and conservation values of rod fisheries for salmon, sea trout and certain marine species such as bass are not adequately accounted for in formulating

marine fisheries regulations. For example the legal exploitation of salmon and sea trout in marine interceptory fisheries (e.g. Irish drift net fishery) is severely compromising the sustainability of the home freshwater fishery. A considerable illegal inshore net fishery for salmon and sea trout, under the guise of fishing for marine species, also imposes high policing costs.

- It is necessary to understand better the behaviour and movements of migratory salmonids in the sea in order to increase their protection from environmental threats such as oil spillage, thermal pollution, bycatch exploitation and loss of food sources.

- The UK falls far short of the potential of its shell fishing because of poor inshore and estuarine water quality.

6.7 Recommendations

- *Marine fisheries regulations should fully reflect the true economic, social and conservation values of rod fisheries for salmon, sea trout and certain marine species such as bass.*

- *Further work should be undertaken to understand the behaviour and movements of migratory salmonids in the sea so as to increase their protection from environmental threats such as oil spillage, thermal pollution, bycatch exploitation and loss of food sources.*

- *The UK should seek to make maximum use of its highly productive inshore and estuarine waters to develop its shell fishing industry, and should set a high priority on improving water quality in potential shell fish-growing waters to provide high quality shell fish to the benefit of local communities and the UK shell fish industry as a whole.*

7 Land, Construction and Aggregates (Paragraphs 46, 81)

Question

7.1 Paragraph 46 ***We would welcome views on what more can be done to promote sustainability in the construction industry, and in particular on what environmental, social and economic objectives we might have for the existing domestic and non-domestic stock.***

7.2 **Key Points**

- The construction industry is not well integrated with those involved in the long-term management of the environment, and consequently needs to develop its understanding and methods of working in this respect. This will be particularly helpful in dealing with land restoration, infrastructure, and remediation of contaminated land. Sustainability in the construction industry can be promoted through a recognition of the general public as its overall customers, and that the overall built environment is its shop window.

- The construction industry currently causes more recorded water pollution incidents in UK than any other industrial sector (over 600 in 1997). Construction sites are also major sources of noise and disruption to the local community. The construction industry must improve its approach in this respect.

- The Agency promotes the sustainable remediation of contaminated land, given due consideration of the costs and benefits. It is carrying out research to support this, in particular the better practical understanding which is needed of potential remediation techniques. The Agency supports the Government's targets for building new homes on brownfield sites - always provided that land quality criteria can be met.

Case Study: Repairs to the Thames Barrier

Repairs to the Thames Barrier (following damage caused last year when it was hit by a sand dredger) are being carried out with no environmental pollution. State of the art repair equipment (from the USA) is being used for the first time in Europe. No scaffolding is required and all debris and waste is sucked into containment, filtered and disposed of to the foul sewer.

7.3 **Recommendations**

- *The Construction Industry should develop a better understanding of its own critical responsibilities to the built environment - as distinct from those of others, e.g. planners.*

- *Methods should be developed by which companies involved in the Construction Industry can assess their environmental performance.*

- *A co-ordinated national approach should be taken to the production, dissemination, up-dating, and demonstration of guides and standards for best practice with regard to mitigating the environmental impact of construction.*

- *A clear linkage should be made between the achievement of (a) social objectives - related to UK lifestyle at the millennium, and (b) environmental objectives. These will not always be mutually supportive.*

- *A national research programme into remediation of contaminated land should be undertaken focussing on demonstration of methods and techniques.*

Question

7.4 Paragraph 81 ***We would be interested in your views on:***
a) the potential for more efficient use of aggregates and increased use of recycled material;
b) what more could be done to minimise adverse environmental impacts of minerals extraction, and to promote high-quality restoration.

7.5 **Key Points**

- The Agency believes there is considerable potential for increasing the recycling or reuse of construction, demolition, mining and quarrying wastes. It currently works to a 10% target on its own works.

- Benefits will be achieved through reduced consumption of primary materials - thereby reducing the related environmental impact of abstraction, reducing the related wastes, and reducing the amount of waste disposed to landfill.

- A range of measures are needed to ensure effective use of these materials. These include:

  - full life-cycle assessment, including all possible environmental changes / impacts; and
  - guidance / briefs for clients and designers promoting recycling or reuse.

- The direct winning of aggregates from watercourses, even at the small scale of providing for the needs of individual landowners, can cause locally significant impacts in terms of destabilising gravel and sediments, with knock on impacts for instream and riparian ecosystems. Impacts on fish spawning can be particularly acute.

7.6 **Recommendations**

- *National guideline targets for use of recycled and secondary materials in construction should be developed through the Construction Industry Board.*

- *More consideration should be given to imaginative new uses of former quarries (e.g. ponds and wetlands) rather than reinstatement of original environments*

8. Conservation and Countryside Issues (Paragraphs 77,78,79,80,50)

Introduction

8.1 The Agency believes that one of the keys to achieving the sustainable development of the countryside is to ensure that significant decisions are taken in the light of a full understanding of their environmental consequences, given reasonable constraints of scientific understanding and the practicality of gathering the necessary information. This applies to both individual projects, and to wider reaching policies. We consider that this is essential if there is the development of a true synergy between economic, social, and environmental objectives, rather than just avoiding negative environmental impacts.

8.2 We welcome the revision of the UK Sustainable Development Strategy, but are concerned that this will not provide the commonality of purpose that it deserves unless there is a clear obligation on the public sector (and through regulatory, fiscal, educational, and other measures, the private sector) to pursue its objectives. To reinforce the need for sustainable development to be at the heart of decision making, we also consider that the need to achieve it should be one of the objectives of all Government departments, statutory agencies, and regional/ local government. While it is likely that there will always be some tensions between departments, agencies, and layers of government, (and, indeed, differences in interpreting what precisely is meant by sustainable development) , we feel that by placing it as a common duty throughout the public sector will help reduce some of these tensions.

8.3 Particularly in respect of environmental and countryside issues, where natural processes dictate that planning horizons are longer than in many other areas, we feel that there is merit, without being too prescriptive, in the development of policies for many with long term, (25 year) objectives. The UK Biodiversity Action Plan is a good example, and we welcome the production of a Forestry Strategy for England. Elsewhere in this submission (section 3) we recommend a similar approach be adopted for the management of water resources, and such an approach could also be adopted for agriculture, dealing with the expected impacts of climate change, and freshwater fisheries. Such a long term approach has already been taken in respect of the reductions in green house gases, and this we welcome.

8.4 As well as addressing the basic principles of sustainable development (see section 2) we believe such policies should include, as long term objectives :

- better linkage between the cost of mitigating or overcoming environmental impacts and the activities that cause them;
- recognition and support for activities which protect and enhance wider public benefits;
- regulatory mechanisms more closely allied to the environmental impact of activities, capable of addressing diffuse as well as acute impacts; and
- indicators and monitoring programmes to show progress towards objectives.

8.5 As a result of its own practical experiences, the Agency recognises that there is still a great deal of work to be done to translate theoretical models of sustainable development

contribution towards sustainable development, and is subject to statutory guidance, this is not true of all public bodies and other tiers of government. Without a consistency of purpose, the efforts of those bodies that do have such a duty will inevitably be hindered by those that do not, and who may therefore pursue priorities which mitigate against sustainability. While tensions between different tiers of government, and even between different Government departments, are inevitable, we feel that sustainable development and management of the countryside (and, indeed, of urban areas) would be greatly facilitated if a formal sustainable development duty was placed on all Government ministries and agencies, and regional/local authorities, to ensure consistency of purpose. This should be reinforced by bringing sustainable development obligations to the forefront of planning policy at all levels.

- An overarching policy on land use, with long term objectives, is needed if we are to achieve the necessary sustainable balance between agriculture, forestry, conservation and amenity. This balance should reinforce the natural structure and form of the countryside, and draw on characterisation initiatives such as Countryside Character and Natural Areas. The policy should address the following:

  - better linkages between the cost of mitigating or overcoming environmental impacts and the activities that cause them (i.e. an extension of the polluter pays principle);

  - recognition and support (particularly in relation to agriculture, fisheries and forestry) for activities which protect and enhance wider public benefits (e.g wildlife and amenity benefits) and the intrinsic value of the environment;

  - regulatory mechanisms more closely allied to the environmental impact of activities, capable of addressing diffuse as well as acute impacts; and

  - indicators and monitoring to show progress towards objectives.

- To help in setting such objectives, a better understanding is required of the limits to which the environment can accommodate land use and development pressures , including the impact of recreation, without incurring long term or irreversible damage.

- The Agency sees its LEAPs initiative as an important contribution to the development of sustainable policies on a regional and local scale (see section 4.2)

Case Study: Sustainable land management in Upper Wharfedale

The Agency is working with the major landowner in Upper Wharfedale, the National Trust, to demonstrate the principle techniques and benefits of an integrated approach to land management in the uplands. The area is in the Yorkshire Dales National Park, an SSSI and partly in an ESA. Involvement of the local community and a wide range of organisations was an important element. With the feasibility study complete, it is recommended that a partnership project is set up to implement best practice.

Proposals include :

- working with local farmers to protect the farming economy;
- using natural techniques to control bank erosion;
- assessing potential to create new wetlands on the valley floor;
- seeking ways of upgrading sheep dips;
- changing farming practices to prevent overgrazing and damage to riverbanks; and
- involving local people in protecting, improving and enhancing the local environment and their understanding of it.

8.11 Recommendations

- ☐ *There should be a formal requirement for the environmental assessment, to agreed standards, of policies in all sectors, in order to make more transparent their environmental consequences and highlight the best options.*

- ☐ *A formal sustainable development duty should be placed on all Government ministries and agencies, and regional local tiers of government, to ensure consistency of purpose. This should be reinforced by bringing sustainable development obligations to the forefront of planning policy at all levels.*

- ☐ *There should be an overarching policy on land use, with long term objectives, including: better linkage between the cost of mitigating or overcoming environmental impacts and the activities that cause them; recognition and support for activities which protect and enhance wider public benefits; regulatory mechanisms more closely allied to the environmental impact of activities, capable of addressing diffuse as well as acute impacts; and indicators and monitoring to show progress towards objectives.*

- ☐ *There should be more research into the use of environmental carrying capacities to help show at what levels particular activities or land uses will give rise to unacceptable environmental impacts.*

into practical policies on the ground. We have used the concept of "critical loads" with some success in respect of acidic deposition , and consider that there is merit in undertaking much more research into the use of carrying capacities to help show at what levels particular activities or land uses will give rise to unacceptable environmental impacts. We have collaborated with other agencies in developing the use of the concept of 'Environmental Capital' to highlight the environmental consequences of policies and proposals.

Question

8.6 Paragraph 77 ***We invite your views on how protection of wildlife and habitats can be integrated more fully into policy making across society. In particular, how can we build public understanding of Biodiversity policies, and involve people in carrying them forward. And assuming that action plans are fulfilled, where should we go from here, other than doing more action plans ?***

8.7 **Key Points**

- Conservation of Biodiversity is a key test of sustainable development. Greater integration and re-statement of Biodiversity policies in strategic planning processes (e.g. by including them within sections dealing with transport and housing development) would help reinforce the fact that they cannot be treated in isolation, and relate to people's everyday activities. The benefits that biodiversity brings, in both rural and urban contexts, should be used to improve understanding. Examples are the exploitation of biodiversity (fish) by anglers, and the enjoyment of urban parks and woodlands.

- One of the strengths of the UK Biodiversity Action Plan (UKBAP) is that it sets long term targets, enabling policy makers & the public to see where we are going (or trying to go), and assess whether new policies are needed to achieve these targets. It has also provided an agreed framework and national agenda which has brought together a wide range of partners from Government departments to small voluntary groups.

- Public understanding can be developed by linking local actions - such as those undertaken as a result of local Biodiversity action plans and Local Agenda 21 initiatives, to the national targets set in the UK BAP. People can then see how their local actions contribute to the overall national targets. Education also has a key role (see section 9). Biodiversity is not just concerned with rare species - it is also about keeping the common common. (e.g. skylark and watervole in the UK BAP). Many people can therefore identify with it, because it is through the common species that most people relate to and encounter Biodiversity. The development and wider use of indicators to show, at both a national and local level, the impact of policies on Biodiversity would help people identify the contribution they can make to the process.

- The UK BAP action plans have provided a focus for activity, and are likely to remain a key tool in the future. The current criteria in the UK Plan which determine whether an action plan should be produced should remain constant. If existing plans are successful, and no further species' declines occur, then the focus should move from species recovery

to increasing biodiversity and the maintenance of species and habitats, rather than recovery. In practice, such success is unlikely across all plans, and therefore it is likely that further plans will be needed. There are also likely to be new threats to biodiversity, such as those currently emerging due to endocrine disrupting chemicals, the risks generated by biotechnology, and the use of genetically modified organisms.

8.8 **Recommendations**

- *Biodiversity policies should cut across all aspects of strategic planning processes, to ensure they are adequately addressed and in urban as well as rural environments.. To that end, they should be included within the Regional Sustainability Plans which we are advocating (see section 4.3).*

- *The UK Biodiversity Action Plan should continue to be promoted as the common agenda for Biodiversity for all policy makers and sectors of society.*

- *Mechanisms, including indicators, should be developed that enable people to see how their activities at a local scale contribute to the overall national targets set in the UK BAP. They should also emphasise that keeping common species common is as important a contribution as safeguarding rarities.*

- *Actions plans should continue to be the focus for activity, providing that the status of species' and habitats warrant them. A plan should be regarded as completed when its ecological objectives are met, not just when it has reached the end of its planning horizon.*

Question

8.9 Paragraph 78 ***We would welcome views on what more can be done to promote sustainable management and improvement of the countryside.***

8.10 **Key Points**

- Sustainable management of the countryside is more than just avoiding negative environmental impacts; it requires the development of a synergy between economic, social and environmental objectives.

- Current guidance on environmental appraisal for Government Departments, which would help make more transparent their environmental consequences and highlight the best options, does not appear to be widely applied, even within Government. As the voluntary adoption of such practice seems to be very limited, there should now be a more formal requirement for such appraisals. To this end, the proposed EC Directive on Strategic Environmental Assessment would appear to be a step in the right direction. Environmental assessment at both a project and at a more strategic, policy, level should be undertaken to agreed standards.

- Sustainable development will not be achieved if it is seen as the preserve of only part of both the public and private sectors. Although the Agency has a specific duty to make a

- *The "Environmental Capital" approach currently being developed by the Agency and other partners should be further developed for use in a more routine manner to highlight the environmental consequences of policies and proposals.*

Question

8.12 Paragraph 79 ***We would welcome views on the environmental goals to be pursued and the type of targeted measures that could usefully be incorporated into the reformed CAP.***

8.13 **Key Points**

- The Agency believes that the long term goal should be an agricultural policy that is one component of sustainable countryside management, delivering sustainable agricultural practices. This should include issues such as transport of produce to processors and consumers, and the role of new technologies. The emphasis should be on the prevention, rather than the cure, of adverse environmental impacts. It recognises that such a goal may be beyond the scope of the current round of CAP reform, but the latter should be seen as part of a managed process of transition. Our comments on CAP reform are set in the context of this longer term goal.

- We have commented in detail on the Agenda 2000 proposals to reform the CAP in our response to the September 1997 Commons Select Committee on Agriculture enquiry. These current 'Agenda 2000' reforms include amongst their objectives 'the integration of environmental goals'. This is welcomed, but must be translated into reality with environmental considerations placed more centrally within the CAP regimes and in a manner which will meet the WTO/GATT 'green box' criteria. We therefore remain of the view that environmental objectives should be more central to the overall aim of the CAP, and that the proposals do not go far enough in the direction of environmental protection.

- We agree with the recent select European Communities Committee report that agriculture should operate, like other industries, within a basic regulatory framework to protect the environment, ensuring that those who damage it pay for the remedies. Equally, however, environmental payments must ensure the delivery of real environmental and public benefits, and should not be subsidies in disguise. Environmental measures should also not just be directed at specific localities or issues; a mixture of both general and targeted measures is required.

- The Agency believes that these more general measures should deliver the MAFF Codes of Good Agricultural Practice for the protection of environmental resources. This may require cross compliance initially, but in the longer term environmental measures must be justified on their own merits. Similarly, these general measures should not be conditional on financial support, because they represent a basic level of good practice necessary to prevent contravention of existing legislation.

- Given the current period of transition in the overall objectives of UK agriculture, from a general aim of maximising outputs to a longer term more sustainable balance between

agriculture and the environment, there is also a change in what is considered to be "best practice". Some more traditional, less intensive, practices are now recognised as being less environmentally damaging, and there are also new techniques, particularly in respect of nutrient management, that pose less of a pollution risk. The Agency believes that there should be far greater effort made to educate farmers in these best practices, and to encourage their rapid adoption. An overall approach that is similar to the "BATNEEC" regime for industrial pollution control could rapidly help solve many of the environmental problems currently being generated by agricultural activities.

- The "transition to competition" may give rise to significant changes in the pattern of agricultural activity in England & Wales. For example, intensive farming practices may cease to be economically viable in more marginal areas, leading to a reversion to more extensive practices. Some parts of the country may be managed primarily for agricultural production, while others may be managed primarily for environmental purposes. Similarly, factors such as climate change may, in the space of relatively few years, require significant changes in cropping patterns. The CAP should therefore have the flexibility to allow these changes to be managed in a sustainable manner - for example by the provision of incentives to change from one agricultural system to another, to avoid short term catastrophic changes that will be damaging not only to individual farm concerns and local farming communities, but also to the environmental and agricultural resources they manage.

- The Agency has recently submitted comments on the use of economic instruments to reduce water pollution. The adoption of such instruments should link to the UK's implementation of CAP.

- While we have focussed on the reform of the CAP, where this allows member states a flexibility of approach, the Agency looks to the UK Government to exploit such flexibility in order to maximise the pursuit of the environmental goals outlined above.

8.14 **Recommendations**

- *The long term goal should be an agricultural policy that is but one component of sustainable countryside management, delivering sustainable agricultural practices, with an emphasis on the prevention, rather than the cure, of adverse environmental impacts.*

- *The current round of CAP reform should be seen as part of a managed process of transition.*

- *Environmental objectives should be more central to the overall aim of the CAP; the current proposals do not go far enough in the direction of environmental protection. Environmental considerations should therefore be placed more centrally within the CAP regimes, and in a manner which will meet the WTO/GATT 'green box' criteria.*

- *Agriculture should operate, like other industries, within a basic regulatory framework to protect the environment, ensuring that those who damage it pay for the remedies.*

Environmental measures should not just be directed at specific localities or issues; both general and targeted measures are required.

- *General agri - environment measures should deliver the MAFF Codes of Good Agricultural Practice for the protection of environmental resources. This may require some cross compliance initially. These general measures should not be conditional on financial support, because they represent a basic level of good practice necessary to prevent contravention of existing legislation.*

- *Support for the following more specific measures should be incorporated into the reformed CAP:*
  - *organic farming;*
  - *integrated farming and minimum tillage systems;*
  - *water supply resource protection;*
  - *capital investments to encourage changes to more sustainable farming practices;*
  - *management of coastal agricultural land in response to the threat of sea level rise and the need, in some areas, for managed retreat; and*
  - *management of riparian zones for the benefit of wildlife and to minimise impacts of diffuse pollution to water courses and to protect riparian and freshwater habitats, and fisheries.*

- *Far greater efforts should be made to train farmers in best practices, and to encourage their rapid adoption. An overall approach similar to the "BATNEEC" regime for industrial pollution control could rapidly help solve many of the environmental problems currently being generated by agricultural activities.*

- *The reformed CAP should have the flexibility to allow changes in agricultural patterns due to a more competitive international regime, climate change, and other factors to be managed in a sustainable manner. It must avoid short-term changes that may be damaging to rural communities as well as to environmental and agricultural resources.*

- *The UK Government should exploit whatever flexibility is permitted to member states in order to maximise the pursuit of environmental goals.*

Question

8.15 Paragraph 80 ***We will be seeking views on how forestry can most effectively make its contribution to sustainable development.***

8.16 **Key Points**

- Well planned and managed forests and woodland is of enormous benefit to the local and global environment, in both an urban and rural context. Proposals to increase the amount of woodland in England and Wales are generally supported providing that best practice guidelines are followed.

- We would welcome the production of a forestry strategy for England , which should ensure that opportunities for woodland expansion are identified and that individual plans are considered in the widest possible context. A similar strategy for Wales should be produced.

- Environmental problems for present and future generations can arise - such as the depletion of water resources if forests are planted in certain locations or are poorly managed. In most cases these problems can be avoided or minimised by environmental impact assessment, careful planning, based on proper consultation, and by the adoption of good practice. Woodlands and forests should reflect and enhance local character.

- There is a need to develop the Register (of planting and felling proposals) in order to improve the process of consultation over such proposals. The Agency would seek to be a statutory consultee in an improved consultation process, because of the likely effects on the aquatic environment.

- There is an urgent need for further research on the impact of woodland on watercourses, taking into account the possible impact of climate change on water supplies in lowland Britain.

- Further work is needed if we are to realise the potential benefits of planting trees on contaminated land, and of increasing the amount of floodplain woodland.

- Emphasis should be placed on promoting the value of timber in its natural state. The economic and social benefits which accrue from sustainable, well-managed woodland should receive greater promotion.

- Encouragement should be given to Local Authorities, National Assemblies and Regional Chambers to adopt policies to meet targets for renewable energy production using timber products such as Short Rotation Coppice and forestry residues. If energy generation initiatives are to be adopted on a wider scale, landowners should be reassured that they are sustainable.

- The Agency supports the Forestry Commission's commitments to sustainable forestry as detailed in the UK Forestry Standard. These must be followed up through a comprehensive monitoring programme developed in conjunction with relevant statutory bodies and reported publicly.

- A variety of tools and concepts can be used for tourism and recreational management - demand management , dispersion, physical/ temporal zoning. A combination of measures may be needed. For example, while the recent proposals to provide a more general right of access should help dissipate impacts, there may still be a need to limit access to more sensitive sites.

- There is an important role for education - both to educate visitors of the impact of their behaviour, and of local communities and others to adopt best practice in visitor management.

8.21 **Recommendations**

- *Where tourism impacts on environmental assets of national or international importance, the financial burden of protecting such assets should not just fall on local economies.*

- *Commercial enterprises that specifically benefit from the presence of such environmental assets should directly contribute to their protection.*

- *Concepts such as carrying capacity and the Environmental Capital approach being developed by the Agency and other partners should be developed further to help identify the best options for sustainable exploitation of the countryside for tourism.*

- *Greater attention should be attention directed towards education - both to educate visitors of the impact of their behaviour, and of local communities and others to adopt best practice in visitor management. Best practice in the use of management tools and concepts relative to tourism and recreational management should be continually developed and promulgated.*

9 Education and Information (Paragraphs 27, 31, 89, 97)

Introduction

9.1. Sustainable development is a concept that is more than complex enough for experts to disagree upon. When seeking to inform or educate various sectors of the community on this issue - *what it means to them and what it means in a wider context* - it is vitally important that the ***specific audience*** and the ***specific and simple message*** is defined **before** one attempts to communicate anything at all.

9.2 Information and education initiatives must, therefore, be targeted and structured to meet the needs of particular groups/sectors - eg small businesses, local community groups, primary/secondary/tertiary schools and colleges. Large amounts of non-specific, poorly targeted information serves only to confuse.

Question

9.3 Paragraph 27 ***How might Government best work in partnership with business sectors on establishing business strategies for sustainable development encompassing some or all of these elements?***

- ***Which elements are likely to be the most effective?***
- ***How useful is the market transformation concept and in which sectors?***
- ***Would it be helpful or feasible to regulate to set minimum standards for energy and material use in production processes?***
- ***What is the most effective way of encouraging business to meet the range of different requirements for communication and dialogue with employees, consumers, the financial community, business suppliers and customers, and local communities? What role can published reports play?***

9.4 **Key Points**

- Government should work with others to demonstrate and incentivise clean methods and good environmental housekeeping - eg demonstration projects offering free audit and/or training and its benefits (reduced production costs, reduced business risk of failure and associated costs, enhanced profile). This might be further promoted via a prestigious national award for excellence. DTi (Business Environment Club) operates incentive programmes based on sustainability which could be expanded. Improvement programmes are also in existence linked to Integrated Pollution Control.

- An incentive based approach however can, and does at times, lead to a dependancy culture, and we need to understand what are the inhibiting forces preventing business taking the initiative without 'pump priming' finance.

Case Study: Impacts of woodland on water resources

It is recognised that significant reductions in available water resources can arise in upland areas planted with conifers. However, the impact of woodland of different types on water resources in lowland areas is less well understood. This is currently the subject of research sponsored by DETR and the Agency. There is concern not only about the reduction in surface water flows but also recharge to groundwater. Some 35% of commercial and domestic water supplies are met from this resource which is the only source in some parts of the country. The cost of providing a replacement to these sources would be in the order of £200k per 1% loss of available yield.

Anticipating that river levels, wetland water levels, and groundwater levels could be reduced, woodland should be avoided in catchments currently suffering from excessive abstraction. There are catchments which are considered to have licensed abstractions in excess of what is sustainable. With steps expected to be taken over a period of time to rectify the over-abstraction problem, a balance needs to be struck between the degree of afforestation, licensed abstraction and water for the environment.

A small number of large plantations would be expected to have a more severe impact on the aquatic environment than a large number of smaller ones. Environmentally, preservation of the full range of flows in a river system is equally, if not more important than preserving a minimum flow.

8.17 **Recommendations.**

- *The production of a forestry strategy for England is supported, and a similar strategy for Wales should be produced.*

- *Formal procedures for environmental impact assessment, careful planning based on proper consultation, and the use of good practice should be adopted to minimise problems due to inappropriate location or poor management of woodlands.*

- *The Register (of planting and felling proposals) should be developed in order to improve the process of consultation over such proposals. The Agency would seek to be a statutory consultee in an improved consultation process.*

- *There is an urgent need for further research on the impact of woodland on water resources, taking into account the possible impact of climate change. Further work is also needed to realise the potential benefits of tree planting on contaminated land, and of increasing the amount of floodplain woodland.*

- *Encouragement should be given to local authorities, and others, to adopt policies to meet targets for renewable energy production using timber products. If energy generation initiatives are to be adopted on a wider scale, landowners should be reassured that they are sustainable.*

- *The Forestry Commission's commitments to sustainable forestry, as detailed in the UK Forestry Standard, is supported.*

8.18 **Indicators**

The UK Forestry Standard must be supported by comprehensive monitoring carried out in conjunction with relevant statutory bodies.

Question

8.19 Paragraph 50 ***We would welcome views on how to manage tourism to ensure its benefits while minimising potential problems***

8.20 **Key Points**

- The Agency has both a direct and indirect interest in the environmental impact of tourism. Directly, thorough its duties in respect of water-based recreation, navigation (which is predominantly leisure based) and angling; and indirectly, through the impacts that arise from tourism - such as seasonal demands for water supply and sewage treatment, plus the impacts of tourism related travel. The dividing line between leisure activities and tourism is unclear for some activities e.g walking and camping.

- Where tourism impacts on environmental assets of national or international importance, the financial burden of protecting such assets should not just fall on local economies. However, commercial enterprises that specifically benefit from the presence of such environmental assets should directly contribute to their protection.

- It is important to recognise that tourism is a vital component of many rural economies, and can help support activities and management practices that are environmentally beneficial and contribute to sustainability.

- Key to the successful management of tourism is a full understanding of both the benefits it brings, and its impacts. Management may be required at a variety of levels - regional / local / site. Characterisation of the countryside can help ensure development is in keeping with other countryside attributes. The Environmental Capital approach being developed by the Agency and other partners, by focussing on attributes rather than features, can help identify best options for sustainable exploitation of countryside for tourism.

- The overall objective should be to manage tourism to levels consistent with the protection of the assets upon which its popularity depends. Such a carrying capacity approach can be applied at a variety of levels to help determine what levels of tourism/ visitors will result in unacceptable environmental impacts (e.g. number of visitor beds/caravan places, and number of visits to sensitive areas). These are likely to vary enormously from area to area and number from activity to activity.

Case Study: SMEs and the Environment

Groundwork, with support from a number of other organisations (including the Agency) launched its recent survey of Small and Medium Enterprises and the Environment on 14 May 1998. These results provide a wealth of information and indicators as to which pressures, inducements and information SMEs may be most responsive to.

- There is a need to promote waste minimisation and prevention messages and to demonstrate how these fit within sustainable development, and to identify which generate 'win-win' scenarios (eg reduced manufacturing costs - raw materials, energy and other utility costs, waste costs). Some 4% of business expenditure is spent on disposal of wastes, with the potential to save 25% of this overall. In other words, a potential saving of 1% of UK's GDP.

- The Agency's Waste Minimisation National Service, Groundwork, Business Links, Industry Associations and many others are active in this area. We have produced guidance and videos to help business and industry to minimise their impacts on the environment

- The role of banks and insurance companies in promoting sustainable development in the business plans of new and existing businesses should be fully exploited. The requirement to satisfy certain criteria prior to securing finance with associated incentives (eg preferential rates) would provide both 'carrot and stick'.

Case Study: Involvement of the Financial Sector in Sustainable Development

The 'Big Four' High Street Banks are all active in this area, but more impetus could be injected into this with Government and other agencies' backing. Additional support could be provided by specialist advisors to assist in the production of sustainable business plans.

- Agricultural practices (eg use of peat, water, fertilisers and pesticides) are currently unsustainable and need to be reviewed with best practice encouraged. The Common Agriculture Policy does little to promote sustainable development within the EU.

- Steps should be taken to encourage energy (gas, electricity) and water suppliers to give environmental information relevant to each household on their bill, together with information about renewable energy sources and how to access them.

- Steps should be taken to ensure that new energy suppliers endorse campaigns to save

energy - this could include products such as 'sava-control' plugs which save energy on refrigerators.

- Steps should be taken to encourage a market mechanism whereby, in order to buy one product, the 'empty' must be returned for recycling (as in Germany and France).

- *Market transformation concept* - making all products comply to minimum standards - will help the consumer in choosing environmentally friendly products. It is important to have standards set, together with reliable information. Labelling of products to specific standards would help comparisons to be made at the point of sale.

- Some examples of companies promoting this approach include the following. Rank Xerox take back all machines at the end of their useful life for recycling. Volkswagon (and others) claim that all parts of their new cars are capable of being recycled. Tesco, Waitrose and Sainsbury's promote schemes for the re-use of plastic carrier bags or for their return and replacement.

- In order to ensure that all products are more environmentally friendly, minimum standards (not least in terms of energy and material use, but also the end product itself) in production processes would be required, and this would require legislation and regulation. Short-term incentives might well be used to pave the way for more longer term and radical approaches via regulatory routes, or might indeed lessen the need for them.

- Some builders of new houses assess and reveal the Standard Assessment Procedure for their new builds which rates the energy efficiency of the building. Whilst legislation is being considered to require this, there is no requirement or mechanism for this to be revealed to the purchaser (only to the Local Authority). This approach could be further encouraged by Government through legislation and by consumer pressure.

- Some clarification is needed as to whether or not the 'regulation' referred to in the Question would be in relation to specific usage of energy/materials, or to regulate the monitoring and reporting of such usage. It is considered that the latter, rather than the former, would be more worthwhile, and set the scene for more productive methods to reduce resource and energy use.

- We should have regard to communication ***to*** businesses on best practice and so on before considering communication ***from*** them to other groups. This could be facilitated by using existing networks such as:

  - consultants - supporting package for their use with businesses;
  - shareholders - pushing for financial gains through environmental improvements;
  - local 'pillars of society' - key people/organisations who may attract more respect and credibility than national bodies;
  - finance houses - banks, insurance companies who have huge opportunities to influence business direction and practice;
  - Local Business Links;

- Trade Associations; and
- Internet resources (eg Information for industry, ENDS)

□ A large volume of information (best practice, case studies, etc) is in the public domain, but is often not used effectively, or at all. Consideration of why this is (via research), and how to improve this situation is a particularly important issue.

□ Reports as a communications tool have their place (eg business leaders), but consumers, employees and local communities need practical and relevant examples in an everyday medium - television, radio, newspapers/magazines, internet, in supermarkets and shopping centres. Retailers have a large role to play at the point of sale. We need to promote a culture change relating not only to work, but also to everyday life - a **'take it home'** strategy.

Case Study: The Agency's Environment First Culture

The Agency has sponsored and piloted Global Action Plan's 'Action at Work' in two of its regions and is planning to extend this further as part of a wider 'Environment First Culture' campaign which will help to raise awareness and action internally and to promote sustainable development to the wider public.

Question

9.5 Paragraph 31 ***Should there be a new approach to foster dialogue between consumers and producers to find practical solutions to consumer concerns? If so, should this work at the national level or for individual business sectors? What kind of information, and delivered through what medium, would most influence consumers to buy more sustainable products and use them in a sustainable manner?***

9.6 **Key Points**

□ It is important to consider consumers as individuals and not as an amorphous mass - to appeal to individual choices. In doing this, serious consideration should be given to what 'switches people on' in purchasing terms - eg:

- Cash incentives, discounts;
- Reward/loyalty points;
- Health implications; and
- Vibrant interesting advertising.

Research by major retailing outlets would no doubt provide very useful information on this (eg the massive increase recently in the use and uptake of loyalty cards). The Agency's market research on AMP3 showed a willingness on the part of a majority of *water* consumers not to have cheaper bills in favour of there being greater investment in environmental improvement.

- Equally important to consider is what 'switches people off' and dissuades them from making even small lifestyle/purchasing changes, eg:

  - boring, technical information which is irrelevant to their everyday life;
  - premium prices for environmentally friendly purchases;
  - tax disincentives (creates antagonism to the environmental movement);
  - requirements to make major (to them, detrimental) lifestyle changes for the environment which prejudices their standard of living;
  - environmental zealots or 'do-gooders';
  - being **told** to do something with no apparent reason for doing so; and
  - ***Others'*** bad practice (eg industry).

- So called 'green products' should be equally attractive in price and quality as 'standard' products [NB point in Question 27 about minimum standards] to make the right choice accessible to all. Pressure from consumer groups to make all products conform to **standards** of biodegradability and/or recyclability would help to avoid misleading or ambiguous information.

- Government should seek to make environmental information (cost) on products meaningful in terms of the environmental impact of production/transportation of the product to help consumers make informed choices (eg energy/resource/water use and emissions per unit).

- Pressure from consumers in demanding clearer information, reduced packaging etc would help to drive change in manufacturing and retailing sectors. Consumers should, therefore, be a key first audience to inform and educate.

- Support should be given for the introduction of 'waste credits' at a local level (ie Local Authorities return a proportion of council tax to residents that can only be used for waste disposal). Households with a low waste disposal requirement could then trade their credits for cash in the market place. There are examples of local credit exchange schemes working in practice which it is believed are being studied by the Treasury and the Inland Revenue.

  There is a need for varied/multi-faceted approach because no one route will reach all - retailers have a particular power base to influence consumer choice.

  - Linking health to environmental quality would present an opportunity to inform consumers about choices and the direct benefits to them of those choices - this might be a valuable and effective route for one sector of society.

  - The use of television as a medium is very powerful and could be used more effectively in this regard (eg a 'green' equivalent of the Food and Drink programme, or key messages integrated into the storylines of TV and radio 'soaps').

- Consumer guides ('Which?' and 'The Ethical Consumer') could incorporate the environmental implications of a products.

There is much research already in the public and private sector (marketing companies, ESRC, Consumer Association etc) to advise on ***effective*** methods to influence consumers.

Question

9.7 Paragraph 89 ***We would welcome views on current initiatives for sustainable development information and education and what improvements might be made.***

9.8 **Key Points**

- Information and education can only be effective if the ***infrastructure*** is in place to support any subsequent changes in lifestyle/behaviour. If people feel unable to make real changes because of a lack of infrastructure, this could set back positive change for years - people would feel disenfranchised by 'authority bodies' and resist any change, however small. Research carried out by the National Consumer Council *'Consumers and the Environment'* supports the view that consumers alone cannot effect the change required - the infrastructure is critical.

- Some change does not need an infrastructure, eg prevention at source of packaging could pave the way, in an incremental manner, for further small steps in the future.

- Reflection on past, unsustainable, actions and their outcomes would provide practical examples of cause and effect and relative risk. For example the plague in the 17th century set back the ***economic development*** of Europe by 150 years; and in more recent times, the effects of the Chernobyl disaster were felt globally and the costs (environmental, financial, human, and its influence on energy choices and their consequences) are ongoing. On a more positive note, the effect of better nutrition (amongst other factors) has resulted in fewer neonatal and child deaths in the UK during the past century when compared with developing countries.

- There is a need to develop the capacity of technological improvements, and of those in training for a business career, by ***designing in*** improvements to products which make them environmentally sustainable as well as recyclable. In other words, encouraging a prevention rather than a cure culture and facilitating the easy and cost effective re-use of base materials.

- It is hoped that the new Government Panel on Education for Sustainable Development will provide focus, direction and coordination to maximise effectiveness of key providers of education for sustainable development - to promote a less partisan and more coordinated approach by providers.

- There is a need to concentrate on learning via 'life issues' - practical involvement in local issues, maximising on *NIMBY*ism (eg siting of new landfill sites and the alternative of minimising waste, recycling and support for community action from the Local

Authorities).

- There is also a need to incorporate sustainable development modules in MBA and other courses to encourage its integration in all decision making, whether business or private.

Case Study: Agency involvement with Higher Education Bodies

The Agency has already been involved in work with Aston Business School and is currently working with a number of Universities on various courses. A coordinated approach with perhaps a set of modules would be a natural progression.

- Formal education needs to be changed such that it contains more involvement and problem solving centred on local issues in a global context. Empowerment and engagement is critical - the 'tell and sell' philosophy does ***not*** work because it represents the "authority" view, of which the public is often suspicious - 'learning by experience' occupies a pivotal place in education for sustainable development.

- Programmes like the CREST Environmental Research Challenge, and Ecoschools, promote just this type of involvement and understanding, as does the practical engagement of young people (and older ones) in actual environmental projects in their locality. Likewise, computer games simulating the environmental impact of individual lifestyle choices would assist in educating children and adults alike - the Agency is investigating with others a potential product for this purpose.

- For the vast majority, ***cost*** will always be a primary consideration for producers and consumers alike when making choices.

- Local Authorities could use community charge bills to highlight LA21 action to make sustainable development a local democracy issue. Action taken locally by the Agency and others under its Local Environment Agency Plans could also be further used to educate and inform.

- Sponsorship of sustainable lifestyles could be sought from high impact superstars (cf the impact Linda McCartney had on promoting a vegetarian lifestyle).

- Information needs to be supportive and in context - not presented as dry facts because this supports the 'so what' philosophy and encourages or condones inaction. Research carried out by the National Library of Scotland in 1997 'Environmental Information in Scotland: Where Do We Go From Here?' highlights the importance of simple and targeted information.

Question

9.9 Paragraph 97 ***How could UK Government and business further encourage the adoption of sustainable production measures both at home and abroad, and how could consumers and importers be encouraged to choose more sustainably produced goods?***

9.10 **Key Points**

- There is a need to maximise European and international links (and possibly the Overseas Development Administration) to develop a coordinated approach and share best practice - the existence of ***one coordinated plan*** which recognises the common threads within each country and sector would appear to be essential. The achievement and promotion of accredited environmental management schemes (ISO14001 and EMAS) might be a good place to start. However, uncertified systems also have a place and should not be excluded because these can sometimes be used as stepping stones to certified schemes.

- In practice there is a global market, and changes to one section of that market may have undesirable effects on other (less privileged) sections - a balance needs to be struck.

- UK Government and government bodies should lead by example in best practice - why do developing countries want to be like us? By practising what we preach, we can help developing countries to develop ***without*** the environmental cost caused by the developed world.

- Notwithstanding the need for developed countries to set their own house in order, UK plc should be promoting environmental technology to avoid environmental mistakes made in the developed world being repeated in the developing world, eg telephone via radio masts and satellite rather than land lines, and clean sustainable transport systems.

- Developed countries should be open to learning from their developing neighbours, who have much to teach us - the learning process is two-way.

- A market (via advertising) needs to be created for products made from recycled materials, so that they are seen as quality rather than 'cheap and cheerful' merchandise. New products and recycled ones should be made more resource efficient, with fewer lifetime impacts, and promoted for the benefits this would bring to the global environment and economy.

- There is a need to show how local effort benefits local people - tangible local returns linked directly to their effort. There is also a need to show how local effort benefits global peoples - using television as communicator. Famine relief is a good example of the power of television as a communicator.

9.11 **Recommendations**

- *Promote and invest in 'win-win' practices for industry, business and individual citizens - all respond to the 'WIFIM' factor (What's In it For Me).*

- *Production of merchandise to minimum standards - making the right choice easier -*

which will require legislation.

- *Research why uptake of already available information is low.*
- *Treat consumers/public as individuals - not as a group - appeal to individual choice and benefits.*
- *Use more of the 'switch-on' than 'switch-off' mechanisms to engage citizens and businesses in sustainable development. Consideration of the relative merits of 'persuasion' versus 'force' will be a key factor in determining future action and its success.*
- *Put in place the infrastructure to support the desired lifestyle changes **before** or **in parallel** to drives to bring about that change.*
- *Target the audience and make the message specific, simple and unambiguous, using creative and popular methods of delivery (eg television, computer games etc).*
- *Some risks and unorthodox methods will be necessary to achieve sustainable development in the wider society. This is truly an 'opportunity for change' which we cannot afford to waste.*

9.13 **Indicators**

Some key indicators could include:

- The Agency's web site information on Viewpoints and Stresses and Strains and the State of the Environment Reports and their updates - indicating changes to the state of the environment, changes to the pressures placed upon it, and how the two interact.
- Economic growth in relation to businesses dealing with environmentally sound products.
- Consumer demand and purchasing patterns - note that retailers record and analyse this information already for marketing purposes.
- Increased demand for information about and engagement in environmental (eg LA21) projects.
- Sustainable development widely recognised as a cross-curricular theme and an essential part of the national curriculum, at all levels of formal and further/higher education.

Appendix 2

THE CONSULTATION PROCESS ADOPTED BY THE AGENCY.

The Agency views the "Opportunities for Change" as one of the most significant and wide ranging of the consultation papers to emanate from the current Government. It addresses our principle, aim, and we are likely to have a role - directly or indirectly- in virtually all of the issues it raises. The scale of the consultation lent itself to a much wider and more inclusive process than is generally possible with most other consultation responses, and presented an opportunity to involve all parts of the Agency in the debate, including our statutory committees.

Box 1 The consultation process adopted by the Agency.

1. To divide the consultation into manageable chunks, we extracted all the questions it posed and placed them into eight subject areas, each with some coherence to our activities. These subjects, and the relevant questions, were:

   - strategic and pervasive issues (questions 15 16 84 85 96);
   - water resources and quality (71);
   - planning and local issues (41 47 49 59);
   - energy policy and air quality (67 69);
   - marine pollution and fisheries (73 74);
   - land, construction and aggregates (46, 81);
   - conservation and countryside (77 78 79 80 50); and
   - information and education (27 31 89 97).

2. Small "expert" groups were formed to address each of the above subject areas, with membership drawn relevant technical specialist from Head Office, our Regions and our National Centres. These expert groups consulted with existing , cross- agency groups with an interest in the subject area, and produced draft responses to the questions raised in their subject area.

3. Each Region was given responsibility for considering in detail one subject area, though they were free to consider other aspects if they so wished. They received the draft response from the relevant expert group, and invited comments from relevant staff and submitted it to their Regional Environmental Protection Advisory Committee. Regional Flood Defence and Fisheries Committees were also involved in some cases. A number of regions held consultation sessions involving external representatives, for example members of Area Environmental Groups

4. Subject area responses were also submitted to relevant Board sub - committees, providing an opportunity for Board members to comment.

5. The expert groups refined their draft responses in the light of comments received through the above consultation processes. Responses were then compiled into an overall Agency response, following editing for style and consistency .

We therefore decided to adopt an extensive consultation process (see box 1) to develop and inform our corporate response to the document. This involved a wide cross section of technical staff within Head Office, our National Centres, eight Regions, and our statutory committees.

Board members were also involved, via sub-Committees of the main Board.

Our response also benefitted from discussions with a range of external organisations including English Nature, the Local Government Organisation, and the English Regions Association.

This approach, particularly the inclusion of the statutory committees, provided a broad constituency of interests to shape our response. The statutory committees generally responded to the consultation with enthusiasm, in some cases setting up separate meetings , or sub - groups, to allow a full consideration of the issues.

In general there was a high degree of agreement on the responses, with few questions giving rise to totally disparate views from different parts of the organisation. We feel this greatly adds weight to our submission, and trust this will be duly recognised in its consideration by Government.

Appendix 3

Recent Agency responses to Government consultations and Parliamentary inquiries of relevance to *Opportunities for Change*

- the House of Commons Select Committee on Agriculture on CAP reform : Agenda 2000;
- the House of Commons Environment, Transport and Regional Affairs Committee on Housing;
- the House of Lords Committee on high-level radioactive waste;
- the National Air Quality Strategy;
- the Trade and Industry Select Committee on the Agency's review of the Electricity Supply Industry;
- Water Charging in England and Wales: a new approach;
- Economic Instruments for Water Pollution Control.