

[www.defra.gov.uk](http://www.defra.gov.uk)

# Summary and Analysis of Responses to the Consultation on Managing Radioactive Waste Safely: A Framework for Implementing Geological Disposal

25 June - 2 November 2007

A public consultation by Defra, BERR and the Welsh and Northern Ireland devolved administrations

January 2008



Department of the  
**Environment**  
[www.doeni.gov.uk](http://www.doeni.gov.uk)



Llywodraeth Cynulliad Cymru  
Welsh Assembly Government

**DEPARTMENT FOR BUSINESS**  
**ENTERPRISE & REGULATORY REFORM**



**defra**  
Department for Environment  
Food and Rural Affairs

Department for Environment, Food and Rural Affairs  
Nobel House  
17 Smith Square  
London SW1P 3JR

Tel: 020 7238 6000

Website: [www.defra.gov.uk](http://www.defra.gov.uk)

© Crown copyright 2008

Copyright in the typographical arrangement and design rests with the Crown.

This publication (excluding the royal arms and departmental logos) may be re-used free of charge in any format or medium provided that it is re-used accurately and not used in a misleading context. The material must be acknowledged as crown copyright and the title of the publication specified.

Information about this publication and further copies are available from:

Radioactive Substances Division  
Area 4C Ergon House  
Department for Environment, Food and Rural Affairs  
17 Smith Square  
London  
SW1P 3JR

Tel: 0207 238 1567

Email: [radioactivewaste@defra.gsi.gov.uk](mailto:radioactivewaste@defra.gsi.gov.uk)

In line with Defra's policy of openness, copies of the responses we receive are publicly available through the Defra Information Resource Centre, Lower Ground Floor, Ergon House, 17 Smith Square, London SW1P 3JR. The Information Resource Centre will supply copies of consultation responses to personal callers (24 hours notice required) or in response to telephone or email requests (020 7238 6575, [defra.library@defra.gsi.gov.uk](mailto:defra.library@defra.gsi.gov.uk)).

This document is also available on the Defra website:

[www.defra.gov.uk/corporate/consult/radwaste-framework/index.htm](http://www.defra.gov.uk/corporate/consult/radwaste-framework/index.htm)

Published by the Department for Environment, Food and Rural Affairs

**Contents**

- 1. Introduction.....4**
- 2. The consultation.....4**
- 3. Summary of responses.....5**
  - 3.1 Statistics.....5**
  - 3.2 General points concerning the responses and analysis.....6**
- 4. Overview of the responses to the consultation.....7**
- 5. Detailed analysis of responses to questions.....10**
- 6. Conclusions and proposed basis of the Government response.....33**
  
- Annex A - List of organisations who responded to the consultation .....34**

## **1. Introduction**

The “Managing Radioactive Waste Safely (MRWS): a Framework for Implementing Geological Disposal” consultation was published on 25 June 2007. This consultation was issued jointly by the UK Government, the Welsh Assembly Government and the Northern Ireland Assembly Government (collectively referred to in this document as “Government”) and closed on 2 November 2007.

The consultation was not about whether or not geological disposal was the right approach to the long term management of the UK’s higher activity radioactive wastes. Government had accepted the independent Committee on Radioactive Waste Management’s (CoRWM’s) recommendations ([www.corwm.org.uk](http://www.corwm.org.uk)) that geological disposal, preceded by interim storage, was the best way forward in its response to the Committee on 25 October 2006 (UK Government and Devolved Administration Response to the Report and Recommendations from CoRWM). CoRWM had carried out an extensive programme of expert community, stakeholder and public engagement over a period of more than two and a half years to arrive at its recommendations.

Rather, the consultation was about seeking views on the Government’s proposals for developing a framework for delivering geological disposal. It covered:

- the technical programme and aspects of design and delivery of a geological disposal facility; and
- the process and criteria to be used for the siting of that facility, including;
  - exploring how a voluntarism/partnership approach to siting as recommended by CoRWM could be made to work in practice;
  - the assessment and evaluation of potential disposal sites, including the initial screening-out of areas unlikely to be suitable for geological disposal.

This report summarises the responses to the consultation, indicating the overall level of support for the Government’s proposals and the main points emerging from the responses. Government will consider all comments in developing the details of the next stages of the implementation process. Those next stages will be set out in a White Paper later this year.

## **2. The consultation**

Notification of the consultation was sent to:

- 646 MPs
- 60 Welsh Assembly members
- 410 Local Authorities in England and Wales
- 108 Northern Ireland Members of the Legislative Assembly and 26 local councils
- 172 others, taken from Defra’s stakeholder list of potentially interested parties.

- (via CoRWM:) over 4,000 individuals or organisations on its contact list

In addition, the consultation document was made available on the Defra website, and any individual or organisation could respond by post or electronic mail. Three stakeholder workshops to explain the proposals, open to anyone who wished to attend, were held in Reading, Leeds and Cardiff.

One hundred and eighty one responses were received. They have been considered in the following way:

- All the responses sent to Defra were examined and the key points identified by departmental assessors.
- Responses from Wales and Scotland were shared with officials in their respective Governments
- Each assessor compiled his/her summary of key points in a spreadsheet.
- An overall summary was produced (this document) which sets out an overview of these key points.
- The summary was subjected to a quality assurance procedure under which checks were made to ensure that all summarised comments appearing here had a provenance (source) in the consultation responses received, and that there had not been oversight.

### **3. Summary of responses**

#### **3.1 Statistics**

One hundred and eighty one responses to the consultation document: these were divided across constituencies as follows:

- Central Government (2)
- Local Government (33)
- Regulatory bodies (3)
- Nuclear industry (15)
- Research, educational and academic institutions (8)
- Industry (general) (1)
- Non-governmental organisations (29)
- Professional bodies (7)

- Consultancy – organisations or individuals (10)
- Individual members of the public (72)
- Others (1)

### **3.2 General points concerning the responses and analysis**

- The responses received, in many cases, were framed as direct answers to the questions posed. However, where the questions required a direct ‘yes’ or ‘no’ answer - and this was the case in 10 of the 13 questions posed- the answers were usually (but not universally) qualified. That is, the answers were often along the lines “I/we agree with the proposals in general, but Government needs to take into consideration .....”; or “I/we disagree with the proposals for the following reasons...”.
- In some cases, respondents had provided a comment under a particular question whereas the context of the comment was such that it appeared to answer a different question. These responses were logged against the most relevant question where possible and reasonable.
- A significant number of responses contained answers to the questions posed, but in a less structured manner – that is, free text providing opinions, support and objections. In these cases, wherever possible, the answers provided were ascribed to questions where the assessors felt able to do so. In a number of cases, however, this was not possible.
- Some responses under one question have relevance to other questions as well. Where the assessors could not ascribe a response to any one particular question, they have logged the response under more than one question. There is therefore some duplication of summarised information in this consultation summary.
- Some responses were from individuals (46%) and some from organisations or groups of individuals of various sizes (54%). Of the former, some 40% were pro-forma letters all with the same central content. A large number of these pro-forma (standard response) letters are from one area of the country, where residents appear to be under the impression that a geological disposal facility is destined for their area.
- For the reasons given under the above five bullets, some care must be taken in reading the statistics provided in this summary. There has been no attempt to “weight” the responses in terms of the numbers of people expressing a view in each response. Indications of agreement or disagreement to questions posed have been given where appropriate and possible to do so. Where a statistical statement has been made (e.g. “for Question X, 60% of respondents agreed with the proposal, 18% disagreed, etc...”) the statistics relate to the number of respondents who provided an answer to the question posed.

- A number of responses, and parts of responses, provided views which were not specifically asked for in the consultation document. In particular, the opportunity was taken by some respondents to provide objections to UK national waste management programmes in general and geological disposal in particular.

#### **4. Overview of the responses to the consultation**

An overview of responses is as follows:

- There was general agreement that Government was proceeding along the right lines with their framework proposals. In particular, with exception of some opposition to geological disposal itself, there was relatively little opposition to the manner in which Government intended to progress the concept.
- There was explicit acceptance of most Government proposals by about half of those who chose to respond to each question. The other half was divided, to a greater or lesser degree, between respondents who disagreed (usually a minority) and those who did not provide a clear agree or disagree answer. Furthermore, many of those who expressed agreement did so with qualifications and suggestions for improvement.
- In some cases it was apparent that the respondents were not necessarily familiar with all aspects of the consultation document, or had not seen some or all of the relevant supporting documents. A case in point concerns the inventory of wastes. For instance, although there were a number of suggestions as to what the inventory should cover, in some cases respondents appeared to be unaware that the inventory already contains information on the topics referred to.
- The exclusion of Scotland from the consultation was puzzling to some. They felt that insufficient explanations of the Scottish withdrawal had been given. Others went further to suggest that this somehow reduced the legitimacy of the consultation. This is not Government's view. Government believes that CoRWM's work, and the evidence base for their recommendations, stand.
- Some responses suggest that the individuals concerned challenge the basis of the consultation, which is about implementation of the CoRWM recommendations in light of the Government's October 2006 response to them. Some NGOs felt that CoRWM's recommendations had been misinterpreted or used selectively by Government in the consultation document. There were also claims that CoRWM's recommendations were heavily caveated, and that the caveats have not been properly reflected in the consultation document. One area of concern was that those parts of the CoRWM recommendations relating to interim storage had been insufficiently addressed. Some believed that wastes arising from any new generation of nuclear power plants should be dealt with by way of a separate process.
- Geological disposal is generally regarded as the best way forward. However, there is a general belief that more research is needed to support its delivery. Some opponents of the concept expressed the view that regardless of CoRWM's

work, the science of geological disposal is so much in its infancy that no decision can be taken at this stage. Government recognises that an extensive programme of research will inevitably be required to develop the safety case necessary to secure regulatory approval for any geological disposal facility.

- Several technical bodies have expressed views about co-location of ILW and HLW (because of the different engineered barriers required for each). It was felt that Government should be open minded at this stage. Some were concerned that the driving force for co-location is economics, rather than on technical grounds. It was suggested that co-location would be unique to the UK. In practice the feasibility of co-disposal at any given site will need to be demonstrated, based on supporting research as part of any geological disposal facility safety case.
- Regulation is generally regarded as satisfactory, but some offer the view that the regulators should be given more resources to do the job. Some (industry respondents in particular) are concerned there should be clear unduplicated lines between the regulators. A point made by the Environment Agency is that the RSA93 needs amending to fit in with a staged application process. In addition, the staged application process appears to have some support amongst respondents more generally. Yet others suggested that the implementation of a repository requires new bespoke regulations
- There is concern about a possible skills shortage (in particular, in geology and mining) to do the job. This perceived skills shortage applies to site operators and regulators alike. It was suggested that Government perhaps needs to address this now, so that skilled people become available in time.
- Many respondents were in favour of the planning reform proposals for England. But some, notably NuLeAF (Nuclear Legacy Advisory Forum), questioned what purpose would be served by referring an application to the Infrastructure Planning Commission (IPC) and were concerned that the possibility of referral to the IPC could be perceived by some local authorities as a fall-back position for Government and may deter participation in the siting process. Some respondents felt that more information may be required on how the new planning system would work in practice in relation to this particular issue. A minority of respondents took the opposite view: that Government should decide on these national matters without reference to local democracy.
- There was widespread support for the criteria suggested for the initial screening-out of unsuitable areas and subsequent site assessment criteria. Some suggestions were made concerning enhancements and additions. Some commented that initial screening-out criteria would not rule out the Longlands Farm site in Cumbria and that, in light of the 1997 Planning Inquiry decision in respect of that site, the criteria must be somehow flawed. Government notes however that the initial screening criteria are only intended as an initial step in the process, to rule out at an early stage areas that are clearly unsuitable for a geological disposal. More detailed assessments and evaluations would follow in the next stage and a facility would not proceed unless regulators are content that it is safe, secure and environmentally acceptable.

- There was comment on the appropriate order for the programme: choosing a site based on its geology; and finding volunteer communities. Government needs to make clearer that it is not seeking to identify any single “best” site but rather one that is fit for purpose in meeting independent regulator’s requirements covering the safety case for containment of the waste. A number of respondents felt that some form of UK geological sift should be undertaken first and then communities approached. This was on the basis that if only volunteer sites are considered, more promising sites, geologically speaking, might be missed.
- There was general support for the key elements of the voluntarism and partnership approach proposed. This included; the approach to defining a community; the provision of information; the proposed partnership approach; and consideration of engagement and community benefits packages. However, in each of these areas, there were comments which will need to be given consideration in deciding the way forward.
- Some stakeholders point to the apparent complexity of the proposed arrangement and to possible confusion of responsibilities, due to the number of committees and bodies involved. There is some concern that local decisions might, in the end, be overridden by government, or another body. Strong opinions are expressed by some about the paramount importance of local decisions, and that these should not be overridden. Conversely, it is also observed by some that local powers should not be strong enough to be able to stop the process.
- There is a view that people will not come forward to volunteer without a lot of proactive work by Government, and that they won’t have sufficient knowledge and information to make an informed decision (both on technical matters and on what benefits might accrue), and how Government will deal with this. A number of helpful suggestions were made in the consultation responses which will assist Government’s process of information dissemination.
- The benefits of volunteering to host a geological disposal facility still need to be set out more clearly, according to some respondents. Along similar lines, how will individual compensation be addressed (e.g. house price effects, people potentially wanting to leave the area, effects on small industry etc). According to some, there is a danger that poor communities will accept benefits for the wrong reasons – there is an issue of perceived bribery.
- The question of an alternative approach is referred to by a number of respondents. What is the Government’s Plan B? If no one volunteers, or if volunteer sites do not have “suitable” geology, what would be the next steps?

## 5. Detailed analysis of responses to questions

A fuller analysis of the consultation responses in light of the questions posed follows.

### **Question 1: Do you agree with this approach to compiling and updating the radioactive waste inventory and using it as a basis for discussion with potential host communities? If not, what would you propose?**

Approximately 65% of respondents provided answers to this question. Of these, 47% agreed with the approach, 8% disagreed and 45% provided no clear agreement/disagreement answer. Comments made by those who caveated their agreement, disagreement or who indicated no clear agreement or disagreement, included the following:

There were a number of comments relating to inventory coverage:

- How have wastes arising in Scotland been allocated within the inventory? Should Scottish organisations be required to deal with wastes arising in Scotland?
- Ministry of Defence wastes, if these are included in the inventory, should be identified. There have been suggestions in some consultation responses that such wastes may be viewed in a different light by stakeholders from those wastes with other provenances.
- It was not clear whether depleted uranium was counted in the inventory of waste destined for deep disposal.
- The inventory information provided should extend to Low Level and exempt waste.
- Some Low Level Radioactive Waste (LLW) is believed to require disposal in a deep repository. Information is not available concerning the proportion of these wastes in the overall volumes. This information should be made available, according to one view expressed.
- There is a need for more explanation and clarity about the nature and current location of waste.
- According to one view expressed it would be appropriate to provide some sub-categorisation of the main streams of ILW. Sub-division might help to allow the public to assess the significance of each of the streams and should underpin an open and transparent change management process that involves host communities.
- The consultation document makes no mention of the difficulties and uncertainties relating to the properties of the waste (e.g. chemical and physical composition).

There were several comments concerning factors that could affect the magnitude of the inventory either in volume or activity terms, or both:

- The impact of different scenarios on the inventory needs to be explained at the outset e.g. the Government's position on reprocessing will have an impact on the waste inventory.
- The waste inventory should take radioactive decay into account, which might change classification and therefore the inventory over time.
- Segregation of long-lived and short-lived waste will allow for flexibility due to decay, according to one view expressed.
- Changes in the inventory are possible due to waste efficiencies, leading to smaller inventory. The Government needs to show how the waste hierarchy has been applied.

Other comments on the way in which the inventory should be considered in the context of geological disposal were:

- There appears to be an assumption, according to one respondent, that the entire waste inventory should be accommodated within one deep repository. Waste could go into more than one repository as long as the impacts on affected populations met appropriate the criteria.
- What is the repository strategy if there is a new generation of nuclear power stations, producing more spent fuel continuously? There was strong opposition in some quarters for the inclusion of "new-build" wastes in the inventory at all with some commenting that as CoRWM's recommendations covered legacy wastes only, they should not be applied to any wastes from future nuclear power generation.
- More research and information is needed on containment of the wastes, in addition to the data on waste volumes. This should be part of the inventory information.
- Evaluation of new waste arising should be carried out by an independent body.
- The change control process should encompass technical, social, political and ethical issues that concern the host community, including ensuring that a repository can take extra waste without reduced long-term environmental performance.
- The view was expressed that plutonium should not be regarded as waste. More generally, the view was expressed that any fissile material should not be treated as waste. Fissile waste may have uses as nuclear fuel. The inventory should clearly distinguish between such material and wastes for which there was no conceivable future use.

- The UK needs a sound strategy for spent nuclear fuel that considers all the stages and options, including any potential role for partitioning and transmutation.
- Are there any possible pressures to take account of wastes in the inventory for deep disposal from outside the UK? The respondent was wary of this possibility and (by inference) is opposed to the UK taking overseas wastes for disposal.
- The debate on a new Low Level Waste Repository (LLWR) should be incorporated into the MRWS process. There also is a suggestion that a new LLWR should be located on the same site as the deep repository for higher level radioactive wastes.

**Question 2: Do you have any comments on the proposed technical approach for developing a geological disposal facility as set out in Chapter 3?**

72% of respondents provided responses to this consultation. The key comments are as follows.

Comments on the technical aspects and design of the geological disposal facility included the following:

- The repository design should provide for both drift and vertical shaft access; operators should not rely on just one method of repository access.
- The repository should be a region of low groundwater flow, and the geology should be readily characterisable and predictable. The Sellafield region does not meet these requirements according to some.
- Co-disposal of different types (classes) of waste might be problematic for chemical reasons. ILW and HLW should not necessarily be co-disposed. Considerations should be given to the possible need for waste segregation in different repositories to mitigate any possible detrimental consequences.
- Uranium and plutonium should not be co-disposed, according to one view, but the reasons were not fully explored.
- Various views on the retrievability of waste were expressed. It should be essential, according to some. Some respondents expressed a view that retrievability over all time was important; others that retrievability should be incorporated into the repository design in order to allow time for new developments and new scientific discoveries in the field of radioactivity and radioactive waste management. One view expressed was that that the currently proposed solution might be unthinkable in 50 years time; views have already changed and evolved a great deal in the past decades.
- A converse view expressed, was that it is possible that allowing the option of retrievability might result in a less than optimal design for a repository. There will be a long period until final closure, particularly if any new nuclear generation

wastes are incorporated. This is inconsistent with the view that a facility should be closed as early as possible, according to one respondent.

- Information is required on the vulnerability of a deep repository to terrorist attack.
- With respect to siting, care should be taken in relation to National Parks according to one view expressed.
- One respondent believed that the Environment Agency had identified a number of scientific, technical and engineering issues that need to be better understood in order to have confidence in containment of radioactive wastes over very long timescales.
- A number commented that more research and development is important, in particular on the geological aspects, to maintain confidence. This research should not simply be site-specific, but generic. Additionally, modelling of radionuclide migration is essential. The nature of this supporting research and development programme should be made visible and open. The need for more research and development was a frequent theme of the consultation responses, repeated in answers to a large number of questions.
- One respondent stated that more research on carbon-14 compounds migration is needed (and offered a place on the steering committee for a postgraduate research project.).
- The use of lower level wastes (LLW) could perhaps be considered for a repository in the capacity of radiation shielding and as a heat sink.
- Some expressed concern about mechanical systems during the operational phase - maintenance of ventilation and mechanical handling systems, potentially for hundreds of years, could become a higher risk factor than currently envisaged. Similar concerns exist over the performance of monitoring and control and instrumentation subsystems over such prolonged periods of time.
- The technical approach needed phases to undertake optioneering and concept studies, conceptual design, detailed design, commissioning, operations, and post-closure. An approach is needed that enables these issues and associated research and development to be considered in the overall planning timeline.
- The NDA (Nuclear Decommissioning Authority) should publish an early version of a repository Lifetime Plan, including an explanation of the proposed repository design and safety concepts, and how it will be built, operated and closed. The preliminary version of the plan should be published for consultation.
- A number of views, many contrary to each other, were expressed concerning the timing of the implementation. A few respondents urge more speed, stating that a period of 20-30 years is too long. Others emphasised the need for care – the problem has been around for a while and Government should not rush decisions.

More general comments that did not relate directly to the proposed technical approach, to developing a geological disposal facility included:

- The consultation should have been widened beyond its current remit to allow consideration of radioactive waste storage.
- Further clarification is required on how existing stores will operate as a precursor to disposal, with more detail on the Nuclear Decommissioning Authority's review of the storage programme.
- Planning for 100 years of storage is prudent but possibly pessimistic given the assumption of first emplacement by 2040. Waste packages should, in any case, be designed with both disposal and storage in mind.
- A separate repository should be constructed for any waste arising from a new generation of nuclear reactors. This will make the funding source clear – new reactor wastes should be funded by the utilities, and not from public funds (as is the case with legacy wastes).
- According to some, the Nuclear Decommissioning Authority, as the implementation body, should not be involved in the community engagement scheme; this would represent a conflict of interest with their prime responsibility for repository design and operation.
- The independence of the relevant organisations was questioned by some. The Waste Management Steering Group is not an independent body because it is dominated by Government Departments. Is CoRWM independent when it is sponsored and paid for by Government?
- Government should decide and make clear its scientific approach with respect to the balance between the precautionary principle and expediency.

Finally some made more general comments on the general geological disposal approach:

- A number of respondents considered there a general mistrust of the safety of geological disposal. They felt that a repository would not be safe because of possible (or some thought inevitable) leakage of radioactive material and lack of control of wastes once emplaced. Some could see no reason why the current process should lead people to think the proposed facility will be safe and that surface storage should be employed until a proper technical demonstration of safety has been made.
- Some respondents felt it would be simplistic to assume that lessons from overseas repository projects and international R&D can be imported directly into the repository plan given the UK's waste and geology types.
- The Nuclear Free Local Authorities group (NFLA) felt that “enormous errors” were made in the past when predictions have been made on the basis of modelling the behaviour of radionuclides over thousands of years in a geological repository.

- Long term behaviour of the underground environment is a cause of concern to some. Issues such as climate change, seismic shift, glacial erosion, asteroid impact and rising sea levels were cited as concerns.

**Question 3: Do you agree with the approach to public and stakeholder engagement set out here? If not how do you believe your input could be better managed or your concerns addressed?**

51% of respondents provided answers to this question. Of those that responded to the question, more than half (54%) agreed with the approach, a minority (12%) disagreed and 34% provided no clear agreement/disagreement answer. The key points raised were as follows.

On the approach to public and stakeholder engagement itself, the following comments were made:

- Publication of a detailed implementation schedule would provide public confidence that implementation can be achieved in a timely manner.
- Stakeholder engagement processes should be enhanced by the use of local polls paid for by the Nuclear Decommissioning Authority. This will ensure that the public are fully consulted and informed. Acceptance by the majority of the host community is paramount.
- The arrangements for public and stakeholder engagement are perceived as complex by some respondents; these arrangements could better be presented by way of diagrams showing the organisations responsible and their roles.
- The views of the Local Parish and Town Councils should and must be considered as more important than the District Council and County Council views, according to some local council responses.
- Although public and stakeholder engagement is important, technical suitability is paramount and should override community willingness, according to some.
- The Government should learn from international experience including Belgium and the EU COWAM project.
- The opinions of stakeholders should be weighted according to their professional status, according to one respondent.
- The regulators (Health and Safety Executive and the Environment Agency) should be invited to all public and stakeholders' events in order to enhance the validity of such events.

- Those living within a wide area of the potential site or transport network should be treated as stakeholders.
- MRWS implementers should work with the learned societies, and with, for instance, the Science Media Centre, to host regular, unbiased media briefings, across the UK.
- A view was expressed that the proposals for public and stakeholder engagement did not incorporate enough input from the scientific and technical community.
- Public and stakeholder engagement needs to be sustained over decades and generations, given the time before waste starts being emplaced. Safety standards, including radiological protection requirements, may change over that time, with review of the safety case. A lot of other things e.g. cancer, acceptability of risks, may change over the same period.
- The use of a web-based Spatial Decision Support System (SDSS) has been recommended as a primary public and stakeholder engagement tool.
- Nuclear site operators should be included in the list of key players (as stakeholders).
- Staged regulation in partnership with a local community and the implementing body would be an advance on the present regulatory position where a decision on authorisation for operation is left until facility construction is completed.

Other more general comments included:

- It is likely that the public will take interest only when the call for expression of interest issued, according to one view expressed. The engagement should be targeted towards those communities which are interested.
- There was some support for the proposed Waste Management Steering Group, but it was unclear to some respondents where the final decision-making responsibility lies.
- The Government must reassure communities that a centralised planning system will not detract from local democracy.
- A National Policy Statement must meet four tests: meet five sustainable development principles in Government's 2005 SD Strategy; be compatible with carbon objectives and adaptation issues in the Climate Bill; be subject to SEA; and be integrated with other National Policy Statements.
- Attention should be drawn to the money already spent on investigations in West Cumbria.

**Question 4: Government believes the system of regulation outlined in para 4.2 to 4.14 is strong and robust in relation to a geological disposal facility. Do you agree? If not, what other regulation do you feel necessary?**

Approximately half of all respondents provided an answer to this question. Of those that responded to the question, more than half (approximately 54%) agreed, a minority (17%) disagreed and 29% provided no clear agreement/disagreement answer. Key points raised were as follows:

Comments on the regulatory process itself included:

- Reviews by the regulators need to be made public.
- Staged regulation is essential; consequently the Environment Agency requires stronger or modified powers under the Radioactive Substances Act.
- One view was to the effect that the Health Protection Agency (HPA) should be included as a regulatory body, alongside the Environment Agency.
- Regulation needs to be enforced in order to build up the regulators' authority, without undue or excessive bureaucracy.
- Scientific competence needs to be imbedded in the regulatory bodies. Concerns have been expressed that the regulators are experiencing a skill shortage in this area.
- In view of complexity of creating a facility and expected long lifetime, it has been suggested that it would be clearer and safer to enact legislation specifically for this purpose to incorporate all legislative elements described in the consultation document, rather than rely on existing legislation which was not specifically designed for the purpose.
- Additional regulation in the economic sphere is necessary, in order to achieve value for money for taxpayers as well as a visible and fair allocation of projected costs among the various users.

Concerns expressed concerning the regulatory process included the following:

- Regulators might need to adapt to what, it is felt, is a completely new challenge, with which they are currently unfamiliar.
- The organisation of the regulatory effort seems too complex and therefore costly. A question was asked as to how this situation compares with the approach in other countries. The boundaries of responsibility between the Environment Agency and the Health and Safety Executive need to be more clearly set out. According to some, a single regulator would be clearer and reinforce public confidence. Countries with a single effective regulator (e.g., SKI/SSI in Sweden) may be more efficient in this regard. There could be a risk of duplication of effort if the environmental safety case runs in parallel with the operational safety case.

- A view was expressed that the regulators could be too powerful and conservative, and were responsible for over-regulation. Some did not welcome the powers of the Environment Agency to dictate the content of research programmes and associated spend by operators or proponents of a repository.
- Friends of the Earth hold a view that the current institutional arrangements for overseeing the planning of the repository are inadequate. They point to CoRWM's recommendation of an "Oversight Body" and the House of Lords Science and Technology Committee's suggestion for a long term statutory Nuclear Waste Management Commission, a stronger body. Friends of the Earth feel that Government has implemented neither of these and that this means there is a lack of long term oversight and continuity on an issue which will last for centuries.
- The regulations will never be seen to be strong or robust enough by some, and will require to be regularly reviewed and updated.
- According to one view expressed, a new organisation is needed to run the facility, and a new organisation should be set up to enforce safety. The resources available to, and independence of, the regulatory bodies is questioned by some respondents.
- There are concerns that the Nuclear Installations Inspectorate will not have sufficient manpower to do the job properly.
- Government should make sure that local powers are not too strong, and that they can't block investigations in a neighbouring community.

Other points made were:

- A question was asked as to whether the Scottish Executive would have a role in the regulation of a repository.
- Government should clarify when the criteria for ending the repository's "period of responsibility" have been met.

**Question 5: Do you think the proposed planning reforms in England outlined in Chapter 4 should apply to the development of a geological disposal facility, and if so how could this be integrated with the volunteerism and partnership approach outlined in Chapter 5?**

Nearly half of responses dealt with this question. Approximately 40% of these were in agreement, with half that number (approximately 20%) disagreeing. A further 40% of these responses provided no clear agreement/disagreement answer. The main points raised for consideration were as follows.

Comments added to support use of the proposed planning reforms included:

- Some respondents felt that geological disposal of radioactive wastes should be one of the infrastructure projects of national significance.
- Some respondents were of the view that although local involvement would be required, a strong Government approach would be appreciated. Some respondents said that they would be happy to delegate this matter to central government entirely.

Some concerns in respect of use of the proposed planning reforms included:

- Planning change must also be compatible with the voluntarism and partnership approach, including time for effective engagement.
- Is there a need for this mechanism if the decision is based on local consent? If there is agreement, then there is no need; if a local community does not agree, then a higher level decision will be needed.
- There is a fear that the proposed planning systems will deter communities to volunteer because of the threat of a superior body that will eventually decide. More generally, central planning will deny local government the confidence to exercise control.
- The use of a single body – the Infrastructure Planning Commission – will deny genuine stakeholders the right to input valid views.
- There is a view that voluntarism and partnership clash directly with the planning recommendations. If volunteerism and partnership are important, then a repository should not be decided centrally as part of a National Policy Statement.
- The proposals go against current plan-led system, according to one respondent; the repository cannot be considered in isolation. Government needs to consider planning in a holistic manner and how it will work with the existing regional structures and the roles they will have to play.

Other comments included:

- The siting decision should remain with the community; County and District Councils are politicised and cover too many wider interests.
- One respondent questioned what the role of the Infrastructure Planning Commission would be in relation to negotiations between the local community and NDA on these issues.
- The idea of an ombudsman was suggested (as a go between for volunteer community and Government).

- Planning reforms along the lines suggested should not be allowed to delay the implementation process.
- It was pointed out that the proposed planning reforms relate only to England.
- A staged process will be as perceived as growth by stealth, according to some views. The respondent expressed no confidence that the Secretary of State could overturn the result of a local debate.
- Local bodies (County, District, Park Authority) lack expertise and resources. Host communities need access to CoRWM advice during any planning consultation.
- The role of the press on an individual community could be great, according to one view expressed in the responses.

**Question 6: Do you agree with this approach to defining ‘community’ for the purposes of the site selection process? If not, what alternative approach would you propose and why?**

Approximately half of the respondents provided an answer to this question and, of these, 50% were in agreement. 11% disagreed and 39% provided no clear agreement/disagreement answer.

Comments on the proposal included:

- Some concerns were expressed about the clarity of the process for identifying a community.
- The impacts (of a deep repository) might go beyond the “wider local interests” as defined in the consultation document.
- The impacted community could span over two local authority districts. Where does democratic accountability then lie, and how would the benefit packages be allocated?
- This matter needs to be dealt with efficiently to avoid delays and absence of decision.
- Scientific considerations must be put first.
- The host community should be limited geographically (and defined?). District and county councils should be involved, according to some. For others, the siting decision should remain with the host community; County and District Councils are politicised and cover too many wider interests.
- The definition of communities should narrow down as site selection proceeds; there was reference to a “centripetal” process.

- It is vitally important to retain and build on the accountable structures which already exist i.e. via Parish, District and Local Councils. No new “ad hoc” arrangements should be established specifically for this purpose.
- There is concern that it would be wrong for an unwilling minority effectively to block an expression of interest which a local majority favoured. There can be no guarantee that the local majority has not been unduly swayed by local nuclear influence or by the prospect of potential financial inducements. These inducements could be made at the expense of the primary issue of the safe disposal of nuclear waste.

**Question 7: Do you agree with the proposals for providing information to communities and the way Government proposes to issue invitations?**

45% of responses covered this question. Of these, over half (approximately 54%) agreed; There was little opposition (11% of these responses). About 35% of these responses provided no clear agreement or disagreement answer.

Specific comments on the provision of information to communities included:

- The process should start with national advertising campaign setting out the problem, the national need, and the potential benefits for the host and wider communities.
- A sustained and high profile media campaign is needed with a series of national workshops that allow the public to speak with unbiased technical experts.
- The project has no chance of success because of the low level of awareness of local communities. A preliminary press/media campaign emphasising benefits and safety should be launched to raise awareness and only then local councils can consider the issues.
- The information should be provided upfront, and not after expressions of interest have been received.
- The proposed incentives should be included in information provided during the early stages of the information campaign.
- The information provided should incorporate more details, which include the detrimental aspects as well as the positive ones.
- There was concern that there could be too much information provision, with the danger of an overload of overly technical information.
- A proposal has been made for a very simple leaflet for the benefit of non technical people.

- Further input is needed for the information pack (no details given).
- Seminars will be useful in addition of the written material.
- It is good to have a staged process, according to some, with information provision at the appropriate times.

Some commented that geological screening should be undertaken before inviting expressions of interest:

- Some respondents thought it would be impractical to call for volunteers and then do the geological assessment. The order should be reversed. Some felt it would be more sensible to target the most geologically suitable sites. There was comment that it would be premature to commence awareness-raising or information dissemination amongst potential host communities before geological potential had been assessed.
- Opening up the debate and information exchange may lead to a risk of eccentric proposals; Government should make known the unsuitable regions first, before this information provision step.

Other comments were:

- The proposed method of issuing invitations is problematic because it encourages a premature focus on specific sites and places insufficient emphasis on the role of the relevant decision-making bodies in this key initial step in the siting process.
- Greenpeace expressed the view that by including new build waste in the consultation document and by failing to provide any information about the Nirex inquiry, the Government has presented inadequate and misleading information about the difficulties of dealing with higher activity radioactive wastes.
- Expressions of interest will have the effect of forming opposition groups. There is a need for another interim step before the expression of interest stage.
- The Isle of Man government needs to be consulted if a site is chosen on the Irish Sea coast.
- Whatever information is provided, there is a view that no proposal (offer?) will be made by any local community.

**Question 8: (a) Do you believe that the initial sub-surface screening criteria proposed by the expert panel are correct? (b) Do you believe that the way in which Government proposes to apply these criteria in the process is correct? If not, how could this be done differently?**

43% of responses covered this question. Of these, there was a large majority, approximately 60%, in favour of use of the expert panel criteria, with only 13%

disagreeing. The remainder, 27%, provided no clear agreement or disagreement answer.

Some specific comments on the criteria were:

- Modifications to criteria are proposed by the Geological Society of London. (These proposed modifications will be looked at separately to this summary document).
- A minor amendment to the wording in the criteria is recommended: "...paragraph 7 of the CPG/CRP report and the Table in paragraph 8 of Annex B should be made consistent by amending the latter [in the Groundwater section] to read: 'Where all or part of the geological disposal facility host rock is located within the aquifer'."
- The criterion for metal ores, where only "some ores" are proposed, may need more thought. Areas should be excluded where ores are actually being mined below 100m, but would the possible presence of ores in the geological column, without mining taking place, be an exclusion criterion? How far, laterally or vertically, from a possible repository location would non-mined ores have to be in order not be caught by this criterion?
- The criterion "specific complex hydrogeological environments" needs further thought. Such environments could exist "within an area", but provided there was adequate separation between the potential host rock and these [complex] formations, it would be possible to develop a geological disposal facility. We suggest that this exclusion criterion "be restricted to the potential host rock rather than being a general exclusion criterion".
- It is recommend that the full report, which explains derivations and qualifications of the criteria, should be used in any screening exercise as opposed to the brief definitions of the criteria, and the qualifying comments.
- The British Geological Survey does not think that the presence of shallow permeable formations alone is grounds for exclusion. The Geological Society believes that the presence of shallow permeable formations are not important as the potential host rock would be at least 200 metres from the surface and therefore beneath the shallow permeable formation.
- Within some areas put forward there will be a number of possible host rocks. Expert judgement will be required about "the part of the geological succession beneath the area offered". It would not be appropriate to exclude such an area because some part of the geological sequence was, for instance, regarded as an aquifer, if there were other parts of the succession that could act as a suitable host rock.
- It appears to be contradictory to consider intrusion scenarios if the intention is to avoid intrusion by design.

Other comments made were:

- More time should have been allowed for the expert panel (that is, the panel which proposed the criteria) to deliberate, and issues relating to surface issues should have been identified and included such as climate change.
- Existing excavations could be suitable. For this reason, these should perhaps be included in the criteria.
- There was a suggestion that CoRWM would be the body best placed to perform the initial screening.
- National screening should be carried out using the criteria set out, but it was suggested that Government should select geologically suitable regions or districts first and then invite local communities to bid for the right to host the site.
- The screening criteria should be included in information packs.

A number of comments were made under this question regarding further geological considerations that should be taken into account as site selection progresses. These included -

- Groundwater dissipation and the need to draw on research undertaken abroad has been referred to.
- A suggestion was made that the future could be divided into timeframes for separate assessment of each. As geology etc evolves, then the criteria could be applied to each discreet state.
- Groundwater flow including flow through fractures should be considered.
- Chemical known as “organics and colloids” that are able to significantly increase the solubility of certain radioactive chemicals require consideration.
- There was not enough emphasis on the geology and its complexity. Furthermore, the horizontal dimension needed to be taken account of in addition to the vertical dimension.
- More criteria are needed in the assessment process (no details given).
- Building up an understanding of what would happen over the long term is important.
- The need for long-term experiments to demonstrate the behaviour of the immediate surroundings of the buried wastes need to be done at the proposed site(s).
- Developing a clear strategy for repository sealing that is demonstrated to work adequately over the long term is important.

**Question 9: Has Government identified the relevant assessment criteria? If not, what other criteria should be used? Do you have any comments on how the criteria should be applied at different stages?**

This question was about the criteria to be used for assessing and evaluating candidate sites, as opposed to the proposed sub-surface screening criteria. Approximately 45% of respondents provided an answer to this question, with over half (51%) agreeing. Of the remainder, 15% disagreed and 34% provided no clear agreement or disagreement answer.

Comments on the assessment criteria themselves included:

- Population density should be considered as an assessment criterion, in particular when comparing these proposals with similar Swedish and Finnish processes.
- Care must be taken in order to prevent any unnecessary revisiting of previously established criteria.
- Remote sites and inhabited island should be on top of the list for site selection.
- Accommodation for a workforce during construction should be considered.
- The factors do not all have an equivalent status; the weighting to be given to each is not clear.
- Criteria will be weighted differently at different stages and this needs to be taken into account.
- The most appropriate criterion is the suitability of the geological media and this should be the primary driver of the assessment.

There were a number of comments that the process for applying the criteria needed to be further developed:

- Little is said about how the criteria should be applied during a long and complex process.
- Figure 4 of the consultation document could be more informative, for instance on the timing of veto and the planning process and engagement with volunteers.
- The way the criteria will be applied at each stage remains unclear.
- According to some, the criteria are not sufficiently comprehensive. For instance, there is no definition of rules that enable a choice to be made, e.g., what level of repository performance meets a given level of acceptability? Government should not necessarily set the weightings - communities may want criteria to be weighted differently, reflecting local conditions.

- A gradual approach to the weighing of the factors should apply throughout the process.
- Criteria relevant to the derivation of a preferred site (assuming that there is more than one potential site) should be ranked, hierarchically, according to one respondent: direct impacts on people (H&S, noise); impact on socio-economic conditions; impact on the physical and natural environment; impact on cultural heritage; level of community support (which is the least important in this context because of the national imperative).
- It is unclear from the consultation document when the rewards should be applied. Is there an implication that this is in stage 5?
- The stage of ending the right of withdrawal is unclear – is this intended for the end of stage 4?
- The right of withdrawal at a time between underground investigations and repository construction should be limited, and based on a specialist and regulatory assessment of the environmental safety case.
- Waste custodians should be involved in the screening (as well as geologists?).
- One responder was concerned about the absence of a Strategic Environmental Assessment which they understood to be a legal requirement for supporting the implementation of development plans and consents.
- Millions of tonnes of rubble will be produced by the mining, with unknown cost to the carbon emissions from such a project, let alone the effect of transporting the rubble, then the nuclear waste, through local communities.
- It is of concern to some that there is nothing in paragraph 5.8 on the role of Public and Stakeholder Engagement in the derivation of the assessment methodology or its application to specific sites.

Other comments/observations included:

- Local stakeholders, rather than Government, should set the criteria and weightings. Government should only decide on the bounding limits of acceptability for the criteria, e.g., environment, health, safety and cost, and how to balance "different qualities of detriment".
- One respondent understood the consultation document to mean that underground investigations are intended at only one site, with engineering solutions to ameliorate any problematic geology that may be encountered rather than rejection in favour of investigating a second site.
- Spent nuclear fuel from a new generation of nuclear power plants would increase the repository footprint considerably, possibly ruling out reliance on one single repository.

- There is a risk to the process if communities themselves, or the political makeup of the decision making body, change during the development stages of the project.
- Geological expertise needs to be embedded in the NDA and its specialist subcontractors, and the regulators.
- Variants of “geological” disposal need more consideration, according to some. For instance, a subsea cavern accessed from the coast has advantages in terms of safety.
- Is there a back-up plan if no suitable community volunteers or if geological problems appear insurmountable? What is “Plan B”?

**Question 10: Do you have any comments on whether and how partnership arrangement could be used to support a voluntarism approach?**

57% of the responses contained comments under this question.

Comments on partnerships were:

- More details are required on the subjects of governance arrangements, decision making, accountability and authority within such a partnership arrangement.
- Existing bodies within communities should be brought together to form partnerships; these will be more efficient than setting up a plethora of new bodies.
- Regional stakeholders should be included in any engagement process.
- The current partnership proposals look very light on the provision of scientific, technical and regulatory support to local lay communities.
- Local branches of the Learned Societies could have a role in the Partnerships such as translating technical information into laypeople's language.
- Wider interests should include communities impacted by the transport of radioactive wastes.
- Prospective partners should be sent abroad to speak to volunteers in other countries, in order to better understand the issues.
- Our system of local democracy may lead to change of view on the desirability of a repository. This could introduce great uncertainty, according to some respondents. For this reason a contractual agreement between partners needs to be signed before too much public money is wasted.

- Partnerships should include Non Governmental Organisations, national statutory agencies, and professional bodies.
- Planning regulations should be used to clarify any confusion about which tier of local government, in the area of a possible repository, takes precedence in representing the local community.
- Partnership and volunteerism could be viewed as an abdication of strategic decision making by Government?
- The overall process is over-complex and may hinder progress. It could be interpreted as a means of avoiding tough decision making.
- A request has been made to clarify decision making; how is a community deemed to have volunteered?

Comments on the operating methods of partnerships were:

- In general, proactive processes are better than central dictated processes.
- As much information as possible should be shared with the public to support decision making.
- Sufficient time needs to be allowed for the process.

Other comments were:

- Local wastes should be managed and disposed of locally; this will avoid having to consider inducement packages because these communities already “enjoy nuclear largesse”, according to one respondent.
- Poorer communities will volunteer (which could bring in industries that other communities may see as polluting). Voluntarism needs to be backed by explicit regulatory processes to protect any vulnerable communities.

**Question 11: Do you agree that the work of communities and/or partnerships should be funded by Government through an engagement package? If so, what activities do you think it would be reasonable to expect Government to fund?**

58% of respondents provided an answer to this question. Of these, 56% answered ‘yes’, with the remainder divided between ‘no’ (31%) and those (13%) who did not have a clear agreement or disagreement response.

Comments on the coverage of engagement packages:

- The funding package should include funding for the engagement of specialist advisors to clarify technical issues for participants.

- Funds should be available to cover research and development, information gathering, and for seeking independent advice.
- Engagement packages should include recouping reasonable costs in the area of planning.
- Whatever resources are made available to developers should be balanced by those made available to the community. For instance, local residents should be funded such that they can attend events and site visits. There was a suggestion that funding should also be made available to support cases against a repository (the counter case). Otherwise, community trust in the partnership may be eroded.

Comments on the operation of engagement packages:

- Proposals on funding are quite confusing at the moment, according to some. Exactly what is being proposed should be set out more clearly.
- The package could take the form of a capped total for each community for man hours and specified types of expenses (e.g., consultancy fees) with money paid out against approved accounts.
- It is worth considering whether funding should be available prior to formal expressions of interest to help communities with "pre-expression" learning.
- Which communities will get the funds? All of them or the short listed ones only? There have been suggestions by respondents for both approaches.
- The funding should be on a long-term basis, and not only a year by year basis.
- To help guide local expectations, a guideline document setting out eligible expenditure should be produced.
- Accountability for public expenditure could be secured by an annual report to Parliament.
- Engagement funding can help to get a repository operational more quickly, thus reducing the cost of surface storage.

**Question 12: (a) How best can Government and the NDA ensure that the development of a geological disposal facility delivers lasting benefits to the host community? (b) Should this involve the use of benefits packages and if so how might this best be achieved, taking into account the need to make the best use of public funds?**

55% of respondents expressed a view on this issue and/or made suggestions.

Comments on benefits packages and their operation were:

- Benefits should include the creation and/or enhancement of wildlife habitats, and improvements in "green infrastructure".
- Government should look abroad at what has been done, in order to avoid making benefit decisions which would have unintended consequences, and which may lead to pressure in other industrial spheres for "special benefits" in order to allow some other form of development to proceed.
- It needs to be made clear whether a benefits package will be provided in addition to the direct and indirect benefits from repository development.
- Benefits packages must be proportionally higher closer to the facility. The advantages must be seen to benefit the community closest to the facility. Districts must not impose on any local area a facility such that others (perhaps a majority) who are not affected will obtain a monetary reward.
- The benefits package should be proportionate to the amount of waste; for instance, volume or radioactivity content should be taken into account.
- The merits of this procedure need to be considered with care. There is a danger that a benefits package could be seen as a bribe by which some communities are encouraged to volunteer even though their locality may be unsuitable for location of a repository. Benefits must not be seen as a bribe.
- Funds will need to be administered by a key independent organisation.
- To make the best use of public funds, this programme should be based on defined and measurable success criteria.
- Affordability, given the cost of failure, is unlikely to be a material consideration.
- If best value and use of public funds is a prime issue, then it is difficult to see how aspirations of the host community can ever be met.
- Political will and management skills are needed when speaking to communities; otherwise past waste of money may be repeated.
- Benefits (e.g., employment) and disbenefits of the repository are both likely to be greatest during the construction phase.
- Construction activity will give rise to disruption over a long period. Measures are necessary to ameliorate this disruption; otherwise it will act as a disincentive to volunteering.
- The Government may need to consider how generations far into the future should be compensated.

- The question has been posed: is the benefits package time-limited or given in perpetuity?
- Whatever inducements are being proposed, they should be increased by a factor of 10 according to one respondent.
- Incentives might lack consistency with other incentives for other types of energy.
- The inducements on offer are too low by comparison with those offered by the oil industry in the United States.

Other comments were:

- Given the long term political and scientific uncertainties, location of interim storage facilities should be subject to a similar siting approach (and compensation arrangements?) as the geological repository.
- It is preferable to get the site right first, and inform everybody about the safety issues, rather than giving money now to a site that might be unsuitable; the next generation of residents might suffer from a (bad?) decision.

### **Question 13: Do you have any other comments?**

80% of all respondents had additional points which they wished to be taken into consideration. Comments/observations, on points which either cannot be ascribed to specific questions in the consultation document, or deal with more than one question, were:

- A number of respondents simply stated opposition to the siting of a repository in a particular area of the country. One area of the country was strongly represented by pro-forma letters expressing opposition. Residents of this area had the impression that a repository is destined for construction there.
- There is little public understanding of nuclear matter, according to one respondent. Comparisons need to be made relating to safety and cost by comparison with other energy sources and related practices (carbon sequestration for example).
- Several respondents held the view that the apparent haste to decide on a new generation of nuclear power plants is undermining policy development on radioactive waste and the groundwork done by CoRWM.
- Some respondents cited the CoRWM view that the question of managing wastes from a new nuclear programme would need a separate consultation process.
- Representatives of the community should be present at every board, even if they are “sworn to secrecy”.

- Voluntarism contrasts a lot with usual governmental practice on shorter-lived projects.
- A disjointed policy will occur if Scotland and Wales do not support the implementation process.
- There is some opposition in principle to deep disposal, which arises from the wish to not close off options for future generations about how it manages radioactive waste. Future generations may know better than we do.
- Timely progress towards deep geological disposal will yield significant savings to the taxpayer as it will reduce or remove the need for interim stores around the country.
- It is vital for public confidence that the Government doesn't place the NDA in a position where it is both judge and jury on key issues affecting a repository.
- Potentially valuable material should not be disposed of.
- There is too little inducement on offer, and too long a timescale for skills to be sustained. Hence, an existing nuclear site should be used for disposal.
- There is no reference to inclusion of overseas experience in any MRWS advisory or oversight group.
- Will there be separation between the implementation group (Site License Company (SLC)) and NDA when the site is licensed?
- Yucca Mountain is a colossal failure because certain dangers were not appreciated. International benchmarking is not necessarily good.
- Interim storage is not adequately covered in the consultation document (several responses).
- The length of the process could affect continuity, momentum and focus, and risk loss of trust.
- A more logical, cost-effective and sustainable option – and one that can be employed without any further delay - is to retain, manage and dispose of wastes at their current sites of origin.
- Crucial security issues have not been considered fully, even after closure.
- A repository should be funded in its own right, without compromising the NDA decommissioning budget or the commitment to prompt decommissioning.
- What is the balance between "the best technical site" and voluntarism? How will ALARP (As Low As Reasonably Practicable) be applied in the light of this judgment?

## **6. Conclusions, and proposed basis of Government response**

The Government view is that, overall, the responses to the Managing Radioactive Waste Safely: a Framework for Implementing Geological Disposal indicate support for managing higher activity radioactive waste in the long term through geological disposal. Further, the responses indicated support for the approach proposed for securing implementation of such disposal, including the proposal for how we might use a voluntarism and partnership approach and site screening and assessment criteria to identify a facility site.

Geological disposal is in line with the Committee on Radioactive Waste Management's (CoRWM) recommendations, submitted after more than two and a half years' work, involving a wide programme of engagement with stakeholders and members of the public as well as the expert community, the evidence base of which has been well documented (available at [www.corwm.org.uk](http://www.corwm.org.uk)) and stands. It is also in line with the wider international community view.

As set out in the Government's response to the Report and Recommendations from CoRWM in October 2006, the Government continues to see geological disposal as the way forward for the long-term management of higher activity waste. Government believes that implementation should be undertaken on a staged basis, with clear decision points allowing progress to be reviewed and affordability, value for money and environmental impact to be assessed before decisions are taken to move to the next stage.

Government acknowledges that the geological disposal implementation programme needs to be coupled with safe and secure interim storage and that there should be a programme of ongoing research and development to ensure optimised delivery of the geological disposal and interim storage components of this waste management programme. The NDA is currently undertaking a nationwide review of storage facilities, both in terms of auditing existing facilities and possible future optimisation.

The consultation responses have provided a number of comments on more detailed aspects of carrying forward the geological disposal implementation programme. These comments are not always consistent and are indicative of conflicting views on particular issues. In others, the comments are more mutually supportive. All comments will be considered in developing the details of the next stages of the implementation process. These will be set out in a White Paper later this year.

## **Annex A - List of organisations who responded to the consultation**

This is a list of 104 organisations who responded to the “Managing Radioactive Waste Safely: a framework for implementing geological disposal” consultation and agreed to their response being made public. The remaining 76 responses were from individuals.

Allerdale Borough Council  
Atomic Weapons Establishment  
Barrett Assessment Consultancy Limited  
Bedford Borough Council  
Bedfordshire County Council  
Berkeley and Oldbury Site Stakeholder Group  
Bradwell for Renewable Energy  
Breckland Council  
Bristol and West SERA (Socialist and Environment Resources Association)  
British Energy Group Plc  
British Geological Survey  
British Nuclear Energy Society and The Institution of Nuclear Engineers  
Caerphilly County Borough Council  
Campaign to Protect Rural England  
Cardiff University  
Churches Together in Cumbria Social Responsibility Forum  
Committee on Medical Aspects of Radiation in the Environment  
Community and Regional Planning Services  
Copeland Borough Council  
Council for National Parks  
Countryside Council for Wales  
Cumbria County Council  
Cumbria Vision  
Cumbrians Opposed to a Radioactive Environment (CORE)  
De Montfort School of Law  
Devon County Council  
Dursley Town Council  
E.ON UK Plc  
East Ayrshire Council  
East Midlands Regional Assembly  
East of England Regional Assembly  
EDF Energy Plc  
Energy Solutions  
English Heritage  
Entec UK Ltd  
Environment Agency  
Environment Agency- NW Regional Environment Protection Advisory Committee  
Environment Council  
Essex Green Party  
Esthwaite Green Link  
Food Standards Agency  
Fratton Neighbourhood Forum  
Friends of the Earth  
Geological Society of London  
Gosforth Parish Council  
Greenpeace UK  
Harborough District Council  
Harrogate Friends of the Earth  
Hartlepool Borough Council

Health and Safety Commission  
Health Protection Agency  
Hunterston SSG  
Institution of Civil Engineers  
Integrated Decision Management Ltd - Grace McGlynn, Gregg Butler, Alan Pearman, David  
Horsley, Neil Chapman, Charles McCombie, Wendy Le Las, Steve Robinson, Lynda Warren  
InteREAM (Interdisciplinary Research in Environmental Assessment and Management)  
Irish Department of the Environment, Heritage and Local Government  
Isle of Man Government's Department of Local Government and the Environment  
Lancashire County Council  
Lancaster Diocesan Faith and Justice Commission  
Law Society  
Lincolnshire and Nottinghamshire Against Nuclear Dumping  
Lowestoft u3a Group  
Luton Borough Council  
Manhood Peninsula Friends of the Earth Group  
New Romney Town Council  
Nexia Solutions Ltd  
North Kesteven District Council  
Northamptonshire County Council  
Nottingham City Council  
Nuclear Decommissioning Authority  
Nuclear Free Local Authorities Steering Committee  
Nuclear Industry Association  
NUKEM Limited  
NuLeAF (Nuclear Legacy Advisory Forum)  
Pembrokeshire County Council  
Permanent Radwaste Solutions, U. S. A.  
Prospect Trade Union  
Purbeck District Council  
RM Consultants Ltd  
Royal Academy of Engineering  
Royal Society of Chemistry - joint response of nine professionals  
RWE UK Nuclear Development Group  
Scotch Whisky Association  
Sellafield Ltd  
Shetland Islands Council  
Shut Down Sizewell Campaign  
Society for Radiological Protection  
South West Regional Assembly  
Stop Hinkley  
Sutton Courtenay (Oxon) Parish Council  
Svensk Karnbranslehantering AB (Swedish Nuclear Fuel and Waste Management Co.)  
UKAEA  
University College London  
University of Manchester  
Warwickshire County Council  
Washington Group International  
Waste Planning Merseyside  
Welsh Anti-Nuclear Alliance  
Welsh groups Network  
West Cornwall Friends of the Earth  
West Cumbria and North Lakes Friends of the Earth  
Westinghouse Electric Company  
Wycombe District Council