



Committee on Radioactive Waste Management

COMMITTEE ON RADIOACTIVE WASTE MANAGEMENT

**TENTH ANNUAL REPORT
2013-14**

JUNE 2014

CONTENTS

CHAIR'S FOREWORD	4
1. EXECUTIVE SUMMARY	5
2. INTRODUCTION	7
Scope of CoRWM's work	7
Summary of Year	7
Public and Stakeholder Engagement and Communications	8
CoRWM's Assessment of its Performance	8
3. LEARNING FROM INTERNATIONAL EXPERIENCE	9
International Engagement in Sweden.....	9
The Swedish Regulatory Approach to Nuclear Waste Management and Disposal	9
The Swedish Siting Process.....	10
Community Investment	11
The KBS-3V Safety Concept.....	11
Role of the NGOs in Sweden	13
Chairs of Advisory Committees' Meeting.....	13
NEA Safety Case Symposium.....	13
4. REVIEW OF THE GEOLOGICAL DISPOSAL FACILITY (GDF) SITING PROCESS	14
CoRWM advice leading up to the Draft Consultation Document (DECC Review of the Siting Process)	14
CoRWM's Reiteration of its Position on Geological Disposal.....	17
Strategic Environmental Assessment (SEA)	18
CoRWM's Response to the GDF Siting Consultation	18
CoRWM's Analysis of Deliberative Events on Consultation on siting of a GDF	20
5. SCRUTINY AND ADVICE ON SCOTTISH GOVERNMENT HAW POLICY AND STRATEGY	22
6. SCRUTINY OF AND ADVICE TO WELSH GOVERNMENT POLICY	24
CoRWM Meeting with Welsh Government and Natural Resources Wales (NRW).....	24
CoRWM Chair Meeting with Welsh Minister.....	24
Natural Resources Wales	25
7. INTERIM STORAGE OF HIGHER ACTIVITY WASTES AND THE UK RADIOACTIVE WASTE INVENTORY	26
NDA National Stakeholder Event	26
UK Radioactive Waste Inventory.....	26
Next Steps	27
8. URANIUM, PLUTONIUM AND SPENT NUCLEAR FUEL	28
9. SAFETY CASE REVIEW	29
10. REFLECTIONS ON THE PAST YEAR AND IMPLICATIONS FOR THE FUTURE	30
11. REFERENCES	34
CoRWM Documents	34
Other Documents.....	34

12.	Acronym List.....	36
ANNEX A	CoRWM EXPENDITURE 2013-14.....	38
ANNEX B	CoRWM MEMBERSHIP FROM 1 April 2014.....	40
ANNEX C	CoRWM'S TERMS OF REFERENCE	47
ANNEX D	TABLE OF MEETINGS FROM 1 st APRIL 2013 – 31 st MARCH 2014.....	52
ANNEX E	CORWM'S RESPONSE TO THE GDF SITING PROCESS CONSULTATION ..	56

CHAIR'S FOREWORD

This past year has been a busy time for the Committee. It has been dominated by the Government's response to the decision taken in Cumbria to halt the MRWS Siting process at the end of Phase 3. In our work plan for 2013/14 we allocated some 50% of our time to scrutinize the Government's response to the Cumbria decision and provide appropriate advice. The scale of the Government's response with a review of the lessons that could be learned, a call for evidence, an analysis of the responses to the call for evidence and the Consultation on a revised GDF siting process, has been greater than we envisaged with the result that we have spent more than the allocated time on this very important topic.

I believe the Committee has made a considerable contribution to the Government's revision of the GDF siting process. It is also our view that the Government's approach has been thorough, robust and a genuine attempt to respond to the concerns that were expressed in Cumbria and elsewhere.

After giving substantive advice at all stages in the siting policy revision process, we await the publication of the White Paper. However, the Committee believes that it will be necessary for the Government to sustain the level of commitment, through the adequate and continuous provision of resource to ensure that momentum is maintained.

In June of 2013 the Government asked for CoRWM's views on geological disposal and the Committee had no hesitation in reaffirming the initial CoRWM decision that geological disposal remains the best solution for dealing with higher activity radioactive waste.

On a personal note, I would like to acknowledge the dedication and commitment shown by the Members of CoRWM during this past year. They have often had to work to incredibly tight timescales to respond to requests from Government. With the publication of the White Paper expected in the near future we will have a challenging time ahead of us and I will be fully focused on ensuring that the Committee maintains its independence so that it is able to form its own views and effectively carry out its scrutiny role. I will also be ensuring that CoRWM provides the advice to the UK Government and those of the Devolved Administrations that is necessary to ensure the delivery of the vital task of safe and secure disposal of our nuclear waste.

Laurence G Williams

Professor Laurence Williams FEng.

1. EXECUTIVE SUMMARY

In the past year, in accordance with its terms of reference (Annex C), CoRWM continued to provide independent scrutiny of the UK's management of radioactive waste and when appropriate provided advice to the UK Government and Devolved Administrations.

The majority of CoRWM's work has focused on providing advice on the UK Government's review of the policy for siting a Geological Disposal Facility (GDF). At a number of stages throughout the review CoRWM was asked for, and provided, advice to DECC. CoRWM made a number of key recommendations to DECC. The first was that there should be a change of emphasis away from a concentration on geology, to that of the role of the safety case. The second was to develop a new siting process that was based upon a continuum of engagement rather than series of distinct stages. The third was to leave the option open for more than one repository. The fourth was that in order to deliver a successful siting process that would enable one or more communities to engage and eventually have the confidence to volunteer to host a GDF, there is a need to have a clear and robust legislative and regulatory regime to control the design, construction, operation and eventual closure of a GDF. CoRWM also cautioned against publication of the results of any geological screening without making clear the extent of the uncertainties associated with the geological information at the depths associated with a GDF.

CoRWM believes that whilst the lessons from the events in Cumbria should be learned, the new process should enable any community in England, or those in the Devolved Administrations that adopt the new Policy, to engage in the process. CoRWM is also of the view that the UK Government needs to promote the importance of the geological disposal of radioactive waste. CoRWM also believes that in order to build trust with potential host communities, the Government should do as much as possible to explain what it is trying to achieve, especially in relation to the need to deal with the nation's legacy wastes and hence reduce the burden on future generations.

CoRWM believes that on the basis of its scrutiny of DECC's GDF programme, the aim to improve the GDF siting policy through a call for evidence followed by a comprehensive consultation, was genuine and robust. However, CoRWM believes that it will be necessary for the Government to sustain the level of commitment, through the adequate and continuous provision of resource to ensure that momentum is maintained.

In response to a request from DECC in June 2013, CoRWM reaffirmed its commitment to Geological Disposal as the best solution for dealing with higher activity radioactive wastes. CoRWM has advised the Welsh Government to take this reaffirmation into consideration in its forthcoming review of its policy on higher activity waste.

CoRWM has continued to support Scottish Government throughout the year in the development of its Strategy to implement its policy of near surface, near site, storage and disposal.

CoRWM has continued to scrutinise the management of waste and spent fuel at sites and provided input into the development of the 2013 UK Radioactive waste Inventory.

Over the year CoRWM has also engaged with the UK's regulators, attended international meetings and conferences and had a successful visit to Forsmark in Sweden to gain a better understanding of the Swedish Government's approach to geological disposal. In

response to public feedback on the importance of conducting its work in an open and transparent way, CoRWM's plenary meetings were reopened to the public.

2. INTRODUCTION

- 2.1. This is the tenth Annual Report of the Committee on Radioactive Waste Management (CoRWM). It describes the Committee's work in the financial year from April 2013 to March 2014 and outlines CoRWM's current views on the status of UK plans and arrangements for the long-term management of higher activity radioactive wastes.

Scope of CoRWM's work

- 2.2. CoRWM's sponsors are the Department of Energy and Climate Change (DECC) for the UK Government, the Scottish Government, the Welsh Government and the Department of the Environment in Northern Ireland.
- 2.3. The Committee's work programme for 2013-14 (CoRWM doc. 3097) was agreed with its sponsors and was carried out within CoRWM's agreed budget (Annex A).
- 2.4. CoRWM's remit is given in its Terms of Reference (Annex C). These state that: ".....The role of the reconstituted Committee on Radioactive Waste Management (CoRWM) will be to provide independent scrutiny and advice to UK Government and devolved administration Ministers on the long-term management, including storage and disposal, of radioactive waste. CoRWM's primary task is to provide independent scrutiny on the Government's and Nuclear Decommissioning Authority's proposals, plans and programmes to deliver geological disposal, together with robust interim storage, as the long-term management option for the UK's higher activity wastes."
- 2.5. During its work in the past year, CoRWM has engaged with various parts of the Nuclear Decommissioning Authority (NDA). These included the Radioactive Waste Management Directorate (RWMD), which carries out NDA's programme of work on geological disposal and is developing into the delivery organisation for a geological disposal facility (or facilities, should more than one be needed). Throughout this report, RWMD is referred to specifically where this is appropriate and the term NDA is used for the whole organisation and for parts of it other than RWMD. This is consistent with NDA practice for the period that this report covers. On 1st April 2014, RWMD became a wholly owned subsidiary of the NDA, and was renamed Radioactive Waste Management Ltd (RWM). However, as this report covers the work and the Committee's interactions during the financial year 2013-14, this report refers to RWMD.

Summary of Year

- 2.6. In the financial year 2013-14, CoRWM has provided the following:
- Advice and scrutiny on the Managing Radioactive Waste Safely (MRWS) Programme and on implementing geological disposal, including advice to DECC on

its consultation process relating to the revision of the current siting process for Geological Disposal.

- Advice and scrutiny on the current status of interim storage of radioactive waste, spent fuel and other nuclear materials in the UK and the implications for the GDF
- Review of the role of the safety case in the MRWS and GDF programmes
- Review of the current position on spent fuel and plutonium management and the implications for the GDF
- Review of radioactive waste classification and the implications for disposal
- Advice and scrutiny of Scottish Government's policy, and review of the development of a strategy for implementing the Scottish Government Policy for managing higher activity radioactive waste.

2.7. Progress on each of these is reported in later chapters.

Public and Stakeholder Engagement and Communications

2.8. CoRWM undertakes public and stakeholder engagement (PSE) to support its work programme and in general uses PSE to assemble evidence, obtain the views of stakeholders, check the factual accuracy of its draft documents and seek comments on its proposed advice.

2.9. Due to poor attendance and budgetary constraints (CoRWM doc 3119), CoRWM previously put open plenary meetings on hold. However, in response to feedback from stakeholders that CoRWM should have open plenary meetings, the Committee reviewed this position (CoRWM doc 3135) and agreed that, wherever possible, meetings should be open, and in particular when CoRWM is signing off significant pieces of work. Since the review, three plenary meetings were held that were open to the public (CoRWM docs 3139, 3150, and 3159). At these meetings, there was the opportunity for those observing to ask questions as part of the formal meeting and to talk informally to Committee members during refreshment breaks.

2.10. CoRWM has decided that it will continue to hold plenary meetings in public and also evening, public meetings (CoRWM doc. 3146) when it is in the vicinity of nuclear sites to facilitate further engagement with communities that have a particular interest in nuclear matters.

CoRWM's Assessment of its Performance

2.11. Members were assessed on their individual performance in November 2013 in line with good practice for public appointments.

3. LEARNING FROM INTERNATIONAL EXPERIENCE

International Engagement in Sweden

- 3.1. In 2013-14, five members of CoRWM undertook a two-day visit to Sweden to gain an understanding of the Swedish geological disposal programme. This fact finding visit informed CoRWM's advice for the UK Government's lesson learning exercise.
- 3.2. Committee members undertook three separate bilateral meetings with the Swedish Ministry of the Environment, the Swedish Radiation Safety Authority (SSM) and the Swedish geological disposal implementing company, SKB. The visit proved to be extremely valuable in shaping CoRWM's 2013 response to the Government consultation on a new GDF siting process (CoRWM doc 3138, Annex E).

The Swedish Regulatory Approach to Nuclear Waste Management and Disposal

- 3.3. In Sweden, the nuclear power industry has always been responsible for taking care of its own waste. To fulfil their responsibility for waste management, over 30 years ago reactor owners jointly founded the Swedish Nuclear Fuel and Waste Management Company (SKB) to design and implement waste management and disposal solutions for the whole industry. SKB is financed through The Nuclear Waste Fund (NWF) to which all nuclear power plant operators make an annual contribution, the level of which is determined by Government under advice from the Swedish Radiation Safety Authority (SSM). The NWF is independently managed and also provides funds to facilitate participation of the local municipalities and the local and national Non-Governmental Organisations (NGOs).
- 3.4. Swedish policy and legislation are decided at a parliamentary level. The Swedish regulators then define the environmental goals and safety standards, and implement the legislative and environmental requirements. Development of a Swedish GDF requires two separate licensing applications: one under the Environmental Code and a second under the Nuclear Activities Act. SSM reviews the license application under the Nuclear Activities Act and makes recommendations to Government. The application under the Environmental Code is reviewed via a hearing of the Land and Environmental Court, which also makes a recommendation to Government.
- 3.5. Once SSM and the Land and Environmental Court have made recommendations, the Swedish Government will ask the Municipality local to the proposed GDF if it accepts SKB's suggested solution. At this point, a mechanism for establishing whether there is local support for hosting the GDF will be enacted to assure the Municipality of community support. At this point the Municipality has the right to veto the Swedish Government decision to grant permission. In the case that the Municipality does not veto the decision, the Government can then choose whether to grant permissibility under the Environmental Code and to grant a license under the Nuclear Activities Act.

- 3.6. If appropriate, a conditional license to construct and operate the GDF will then be issued under the Nuclear Activities Act and the Radiation Protection Act. Construction and operation of the GDF from this point onwards is within the control of the regulator, SSM; they ensure that the license conditions are met.

The Swedish Siting Process

- 3.7. SKB began the search for a repository site for spent fuel over 30 years ago. In the 1980s the siting process considered the whole of Sweden, but it was not successful and resulted in a number of public protests. Learning from this early experience, SKB took a new approach from 1992. Two aspects were key to the new siting approach: (1) the process started with eight communities that already had, or were neighbouring nuclear installations – in these the public trust in the nuclear industry was high; (2) the regulator, SSM, developed a deliberate policy of being more visibly independent of the operator (SKB) – this included always arriving separately at meetings and taking the time to build close, independent, relationships with the public within these municipalities.
- 3.8. In 2002, SKB concluded feasibility studies and began site investigation at two locations: Forsmark in the Östhammar Municipality and Laxemar in the Oskarshamn Municipality. Over a 5-year site investigation period, 22 deep boreholes were drilled at each potential site.
- 3.9. SKB had established offices in both communities in the period in which feasibility studies were being carried out. The offices employed local people to man them, with an open-door policy in each. This allowed community members to raise issues and request information.
- 3.10. In 2009, Forsmark was selected by SKB as the preferred site for a geological disposal facility.
- 3.11. In March 2011, SKB applied for the permits needed for the final repository in accordance with the Swedish Act on Nuclear Activities. They simultaneously applied for the interim storage facility, the encapsulation facility and the final repository to be permitted in accordance with the Swedish Environmental Code. The interim storage and encapsulation facilities are to be sited at Laxemar. The encapsulation facility was located at Oskarshamn as part of an added value benefits package for the community that was not selected for the underground repository.
- 3.12. All license applications are now under consideration. Recommendations from SSM and the Land and Environmental Court were officially timetabled for 2015, but it is expected that due to the vast technical complexities of the license applications, the assessment period will extend into 2016/17.
- 3.13. Community confidence and support for the repository, in both of the potential sites investigated, rose steadily during the last 20 years of engagement. Surveys carried

out at the point of the license application showed it to be over 80% in both municipalities.

Community Investment

3.14. In 2008, SKB developed an 'Added Value Programme' with both of the municipalities involved in the site investigation programme. This was not a part of the original planned siting process and was at the behest of the two local communities.

3.15. The Added Value Programme has a total value of £200M for development of projects which will provide mutual benefit to both the communities and SKB in accordance with a 'win-win principle'. To-date, projects include education initiatives and business development support. 75% of the programme is allocated to the Oskarshamn Municipality, which will host the encapsulation plant, and 25% to the Östhammar Municipality where the final repository will be sited.

The KBS-3V Safety Concept

3.16. The technology developed to ensure safety in the Swedish spent fuel repository is termed KBS-3, and has been designed to isolate people and nature from the spent fuel for at least 100,000 years. KBS-3V is the result of 30 years of research and development by SKB. Their KBS-3V technology is underpinned by extensive investigations within SKB's laboratories: the Äspö Hard Rock Laboratory and the Canister Laboratory in Oskarshamn, which were both developed as bespoke facilities for repository technology design.

3.17. The SKB research and development programmes are six year programmes which are extensively reviewed by the regulator, SSM, every three years. At these points, SSM could make recommendations to Government for changes and additions to the programme. Via discussions with the regulator, the community could also raise concerns and issues for investigation within this three year review process.

3.18. KBS-3V is based on a multi-barrier approach shown in Figure 1. Spent fuel is encapsulated within a ductile cast iron insert, held within a copper canister. The copper canister is inserted into a vertical disposal shaft, in which it is entirely surrounded by an engineered barrier comprised of highly compacted bentonite. Access tunnels deployed for emplacement are also subsequently back-filled with bentonite. The entire repository will be constructed at a depth of greater than 600m below ground surface within a low permeability crystalline rock (in broad terms a variety of granite) that contains very few open fractures.

3.19. Key safety concepts of KBS-3, as described by SKB were:

- The spent fuel is very slow to dissolve in groundwater
- The engineered barriers and the surrounding rock are principally used to provide chemical and mechanical stability for the copper canister

- There is no reliance on groundwater travel times from repository depth to the ground surface. Rather, the role of the surrounding rock is to maintain geochemically stable low sulphide groundwater at depth, such that the bentonite barrier is not chemically or physically eroded over the lifetime of the repository.
- Low sulphide concentrations in the groundwater at repository depths protects against corrosion of the copper canisters.
- The role of the engineered bentonite barrier is to protect the copper canister from corrosion and hence to inhibit the release of radionuclides dissolved into groundwater or in the form of a radioactive gas.
- Two possible canister failure routes are considered in the safety case: (1) mechanical failure due to an earthquake; (2) corrosion consequent on bentonite erosion due to incoming low ionic strength groundwater during future glaciation periods. The properties and thickness of the bentonite are selected to mitigate against these two failure routes.
- To reduce the risk posed by earthquakes, the lateral dimensions of fractures that cross-cut the deposition holes are restricted (i.e. deposition holes are located so as not to be cross-cut by fractures greater than 5 cm in length). This is because fracture length controls the maximum possible shear displacement during an earthquake and this is not allowed to exceed 10 cm.
- In the KBS-3V reference case, the safety analysis shows that no canister will lose its integrity in a million years if the bentonite has not been eroded away. Included in this calculation is the assumption that fabrication and inspection procedures can ensure zero initial canister defects. The safety analysis also shows that in the case that the bentonite has eroded, only one canister out of the 6000 will statistically lose its integrity.

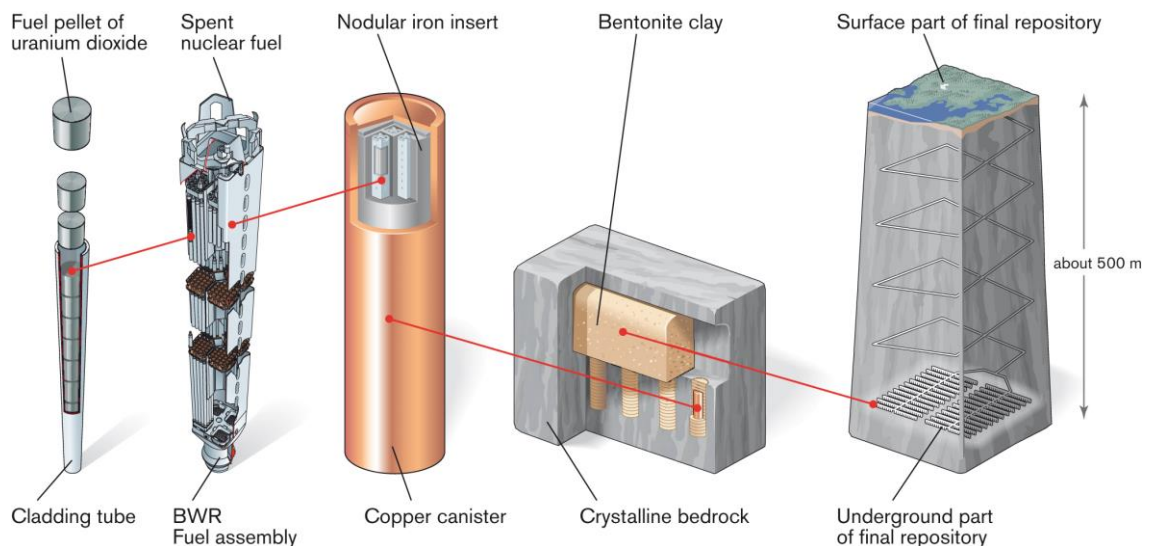


Figure 1. KBS Concept (diagram courtesy of SKB)

Role of the NGOs in Sweden

3.20. NGOs were invited to form two groups, one comprised national NGOs and one comprised of local NGOs. These groups receive SK200,000/year and SK100,000/year respectively from the NWF. Invited membership of the groups had two requirements; NGO management should be democratic and voluntary.

3.21. NGOs are able to raise questions as part of the review of SKB's license application. They can put their views to the Land and Environmental Court and to SSM. The regulators have to consider their views and provide a written response.

Chairs of Advisory Committees' Meeting

3.22. In October 2013, The CoRWM Chair hosted an international meeting of the Chairs of advisory committees to governments, a biannual Nuclear Energy Agency (NEA) meeting in London. This was attended by the Chairs of advisory bodies from the US, Sweden, Switzerland, Germany and the NEA representative. Key themes of the meeting were: the importance of retaining independence, the ability to have an open dialogue with Ministers and the ability to set the agenda for discussions, scientific and technical competency and independence of interests of membership and transparency.

3.23. The lessons for CoRWM were the need to guard independence, and to ensure transparency so that respect was earned from the public in addition to providing advice to the sponsor Ministers.

3.24. It was noted that only a few countries have advisory bodies such as CoRWM and other countries could benefit from setting up their own independent expert groups.

NEA Safety Case Symposium

3.25. Members of CoRWM attended the Organisation for Economic Co-operation and Development's (OECD) Nuclear Energy Agency's (NEA) Symposium entitled: The Safety Case For Deep Geological Disposal Of Radioactive Waste: 2013 State Of The Art. The symposium was held in Paris from 7-9 October 2013. The objective of the symposium was to determine and document the evolution in the state-of-the-art in the development of the concept and application of the safety case to geologic disposal since the 1st NEA Safety Case Symposium in 2007 and to discuss the role of the safety case in existing regulatory frameworks and highlight the role of the safety case in societal decision-making.

4. REVIEW OF THE GEOLOGICAL DISPOSAL FACILITY (GDF) SITING PROCESS

CoRWM advice leading up to the Draft Consultation Document (DECC Review of the Siting Process)

- 4.1. As reported in the CoRWM Annual Report 2012-13, CoRWM debated the lessons learned from West Cumbria, including recommendations that CoRWM might propose for future changes to the MRWS process in its February and March 2013 meetings (CoRWM docs 3105 and 3112).
- 4.2. Based on these discussions and in the light of evidence from stakeholders, CoRWM compiled an informal list of observations on the following issues to provide background for its advice to DECC on the MRWS process: the role of DECC and NDA in any future Partnerships; the scrutiny role of CoRWM; timing of the decision and opinion polls; the perceived lack of knowledge of the MRWS process and the GDF concept; at the local level advertising and publicity; the option of an independent overseeing body; the need for greater clarity as to responsibility for decision making at the local level; geological pre-screening; trust; timing and amount of community benefits; firmer legal basis for the rights of withdrawal; and the need for more information on the inventory.
- 4.3. In advance of DECC's launch of its Call for Evidence on the GDF siting process, DECC requested informal advice from CoRWM relating to the operation of the MRWS siting process to-date; the scope of the siting process review; and CoRWM's role in the subsequent consultation and engagement in a new siting process. On 13th March 2013 DECC requested CoRWM's views on the following questions:
 - a) Which elements of the siting process need changing and why?
 - b) What key questions related to the siting process should DECC and the NDA consider as part of the siting process review?
 - c) What other questions/issues that may fall outside the immediate experience in west Cumbria might DECC and the NDA usefully consider in taking forward their work on the siting process review?
 - d) What initial views did CoRWM have on its own role in: i) the future consultation; and ii) the subsequent siting campaign based on the new siting process?
- 4.4. CoRWM provided initial advice to DECC on the four questions posed in the DECC request on the 15th April 2013. The key points in that advice were:
 - Volunteerism should remain a fundamental principle in the siting process.
 - More effective ways of engaging and providing high-quality information to potential host communities need to be developed and applied.
 - The number of decision points between an initial expression of interest from a community wishing to consider hosting a GDF and the decision to accept and hence give up any right to withdraw should be decreased – the process should be more continuous.

- The intended inventory should be clear. The origins of this inventory should be clarified and explained, and the relationship between a GDF and the benefits the nation gains from electricity generated by the use of nuclear energy should be highlighted.
- A strong advocate should be appointed, with adequate resources to promote the GDF, and consider and respond to technical concerns raised.
- The potential benefits of pre-screening geology should be evaluated in the light of uncertainties in available information. Before any pre-screening is considered, the methodology for assessing the potential for human intrusion to access known natural resources should be clarified.
- The roles and responsibilities of the host community in relation to the levels of local Government should be considered.
- Consideration should be given to the implementation of an effective communication strategy that considers the needs of decision makers and local community. The strategy should include the introduction of a rigorous process for the measurement of the effectiveness of engagement at appropriate points in the GDF siting process.
- The funding package over the lifetime of the project should be clear at the start of the process. The policy should make it clear when community benefits would start and how funds would be set up and spent.
- A body to provide independent advice on technical and scientific issues surrounding the siting of a GDF to the public and the media should be developed.
- Detailed consideration should be given to having more than one GDF.

4.5. In addition to the responses summarised above, CoRWM provided further advice to DECC on the following issues:

Geological Information and Uncertainty: CoRWM emphasised that models provided in documents and roadshows should be complemented by explanations of the relationships between those models and underlying data, the uncertainties involved, and their significance in terms of safety.

GDF Generic Safety Case: CoRWM proposed that in any new process consideration should be given to producing a detailed generic safety case for each of the typical promising host geologies. These should be complemented by an accessible document that describes how the safety case for the GDF will evolve from the initial generic safety case through to the final post closure safety case.

Regulators Visibility: CoRWM advised that the profile of the Regulators should be enhanced, and that a clear and robust regulatory framework for the GDF project, based upon the current nuclear licensing approach, be put in place. The regulatory framework, the respective roles of Government, the Implementation Body and the Regulators at the various stages of the project should be described clearly and in an accessible manner.

DECC-RWMD Relationships: CoRWM advised that DECC should consider how it can access advice and opinion additional to the advice and support provided to it by

RWMD. CoRWM advised that NDA/RWMD should also consider the range of sources it receives advice from to ensure it is sufficiently broad and international. CoRWM suggested that DECC and RWMD should consider how they communicate their responses to the advice that is given.

Strategic Environmental Assessment (SEA): CoRWM advised that SEA, focussing on the plan / programme as a whole, must comply with the European Directive and suggested that DECC examine how other countries have dealt with the Directive in this area (see paragraphs 4.10 to 4.14).

Role of CoRWM: CoRWM advised DECC that it would retain a strong independent position both throughout the consultation and subsequent siting campaign, and that its current role, *the scrutiny of MRWS and provision of advice to Ministers*, outlined in the Terms of Reference allows for this. If requested, by Ministers, DECC or the DAs, CoRWM will provide independent advice as required. In the future CoRWM would expect to provide advice on:

- any changes to the current policy;
- the make-up and role of the Implementation Body / GDF advocate;
- any proposed geological pre-screening process;
- GDF models for public information;
- any new generic safety case for a GDF
- any new regulatory framework for a GDF;
- Inventory / waste specific GDFs; and
- host community engagement strategy.

4.6. Following on from CoRWM's April response, DECC asked for clarifications on CoRWM's views regarding the relationship between RWMD and DECC, the roles of DECC and RWMD in the siting process, the roles of other bodies (regulators, advocate, CoRWM, independent voices), community engagement, safety case evolution, pre-screening of geology, inventory and SEA. This precipitated a facilitated CoRWM discussion meeting (23 May 2013) in which CoRWM sought to clarify its own views on these issues and develop its further advice for DECC. Success factors for the MRWS process, key uncertainties, roles and responsibilities and attributes of the siting process were discussed and placed in the context of the DECC request for clarifications on the pre-consultation documents.

4.7. With respect to the attributes of the MRWS siting process that would be the subject of consultation, CoRWM agreed on the following responses to DECC:

- In the volunteering stage there should be a proactive approach to communicating and developing dialogue with communities. The advocate should be competent in understanding the MRWS process and its timetable, and understanding who is involved in the process and what their respective roles are.
- Geological screening should be omitted from the early stages of volunteering.
- An information pack should be developed that includes FAQ's and answers for communities, geological and other information and models, the underlying safety cases and uncertainties.

- The advocate for the process might not necessarily be DECC, but DECC should be seen to be taking the lead in MRWS policy direction. The advocate should have the characteristics of a developer, and should be able to demonstrate local knowledge.
- 4.8. CoRWM met with DECC and RWMD on 24 May 2013 to discuss the advice summarised in paragraphs 4.4 to 4.6 and further clarifications noted in 4.7. CoRWM emphasised the following points for incorporation into the consultation:
- There is a need to make a compelling case for why a geological disposal facility is needed now at a national level, and to communicate this message. A strong Advocate is needed.
 - There is a need to be very explicit about the concept of voluntarism, to make it clear that the site selection process is based on a voluntarism and partnership approach, but that after a site has been selected the normal processes (planning applications and site license applications) would proceed.
 - There should be no formal decision necessary to enter into any process; a Partnership should not be set up until the site selection process had begun.
 - A 'roadshow' should be developed for expressions of interest, with the focus on addressing any issues raised by the local community on subjects such as the local economy and employment rates. The process should be pro-active.
 - It is important to communicate publicly that the safety case will determine the amount of waste which can be taken by a facility. CoRWM also emphasised that the option of more than one GDF should not be ruled out as it is possible that a single repository may not be the optimal solution.
 - It should be made clear which organisation has overarching responsibility and for each stage of the MRWS process. DECC will be the lead organization, and RWMD (or its successor) will lead in the implementing phase.
 - There should be a clear regulatory framework in place that is transparent and obvious to all at the time when expressions of interest for a GDF are being canvassed. Regulators should have a public-facing role early in the process to build confidence that this robust regulatory framework is in place.
 - In the appointment of any advisory or professional body for the revised MRWS process, the key attributes are that it is independent and considered 'trusted and credible'.

CoRWM's Reiteration of its Position on Geological Disposal

- 4.9. CoRWM provided further clarification and guidance to DECC in reiterating the original CoRWM Committee's recommendations on Geological Disposal (CoRWM doc. 3122: CoRWM recommendation 1), at the request of DECC, in May 2013. The full text of that clarification is provided here for completeness.

Within the present state of knowledge, CoRWM considers geological disposal to be the best available approach to the long-term management of all the material categorised as waste in CoRWM's inventory when compared with the risks

associated with other methods of management. The aim should be to progress to disposal as soon as practicable, consistent with developing and maintaining public and stakeholder confidence.

Geological disposal is a form of the more general concept of 'Disposal'. We define 'Disposal' and 'Geological disposal' as follows:

Disposal - In radioactive waste management the term "disposal" is only used to mean placing radioactive waste in an appropriate facility with no intention of retrieving it. Plans for disposal facilities always involve sealing the facilities at some time after they are full, whereas storage facilities are kept open throughout their lifetimes, until the wastes or materials are removed.

Geological disposal – disposal underground at a depth of more than about 200 metres (also called "deep geological disposal"). The depth is chosen so as to provide a geological barrier against the escape of radioactivity and protect the waste from disturbance. This disposal method is appropriate for high level and intermediate level wastes.

Strategic Environmental Assessment (SEA)

- 4.10. In preparation for DECC's Consultation Review of the Siting Process for a Geological Disposal Facility, a sub-group of the Committee was formed in early 2013 in order to consider the implications on any amendment to the siting process and compliance with the Environmental Assessment of Plans and Programmes Regulations 2004.
- 4.11. No SEA had been carried out to date on the MRWS process.
- 4.12. The DECC position under the 2008 MRWS process was for the NDA's Radioactive Waste Management Directorate (RWMD) to carry out an SEA on the Geological Disposal Implementation Plan (the "GDIP") as part of the site selection process in MRWS Stage 4.
- 4.13. CoRWM understands that no SEA has been carried out in Sweden or France on their GDF programmes and so there can as yet be no lessons learnt from other member states.
- 4.14. The sub-group met with DECC policy and legal in May 2013.

CoRWM's Response to the GDF Siting Consultation

- 4.15. CoRWM provided the informal advice outlined in paragraphs 4.4 to 4.5 to DECC in the form of comments on the GDF Siting Review during the period of the Call for Evidence and prior to the publication of the GDF Siting Consultation Document. This advice was published in August 2013 (CoRWM doc. 3133).
- 4.16. CoRWM was also asked to, and provided comments on the Consultation Document prior to its publication.

- 4.17. CoRWM carried out its own analysis of the “Call for Evidence” responses to understand the views of others in formulating the Committee’s response to the Consultation (CoRWM docs. 3140 and 3141).
- 4.18. To formulate CoRWM’s response to this Consultation, the Committee started initial discussions in the plenary meeting held on 16 and 17 September 2013 (minutes, CoRWM doc. 3135), sub-groups of members were established to consider the individual questions and their initial analyses were further considered in meetings on 10 and 31 October 2013, and in the meeting on 8 November 2013 (CoRWM doc. 3139) which was open to the public. A final meeting to agree the CoRWM submission was held on the 28 November and the final response was submitted to DECC on 6 December 2013 (CoRWM doc. 3138). A summary of CoRWM’s response is given below in paragraphs 4.19 to 4.24 and a full copy of CoRWM’s response to the consultation can be found in Annex E.
- 4.19. CoRWM’s response, in consideration of lessons learned from the current process, recommended that: *any revised process should be as simple as possible, with the minimum number of decision points. **Any new process should be seen more as a continuum of engagement rather than as a series of distinct stages.***
- 4.20. CoRWM also gave the view that: *whilst the Government’s preferred option is to have a single repository for all higher activity radioactive waste, **the option of having more than one Geological Disposal Facility (GDF) should not be ruled out.** There are many reasons why a single repository may not be the optimum solution, such as: availability of suitable geology or rock volume in a single location; incompatibility of radioactive waste types; or the attraction of a waste-specific GDF to accommodate legacy waste and avoid unnecessary additional storage facilities.*
- 4.21. CoRWM’s response also highlighted **the importance of the safety case** by stating that: *whilst the radioactive waste disposal facility is referred to as a “Geological Disposal Facility”, geology should not be seen in isolation and the suitability of a site or sites for radioactive waste disposal must be determined by the robustness of the facility safety case. CoRWM would stress that this safety case is required to demonstrate to independent nuclear safety, nuclear security and environmental regulators that the GDF is safe, the radioactive material is secure and that the environment is adequately protected. The concept and role of the safety case should be clearly defined in any future White Paper.*
- 4.22. CoRWM also stated that: *the **Government should put in place a clear and robust regulatory framework** to control the design, construction, commissioning, operation, decommissioning and closure of the above-ground and underground facilities. Demonstrating that this framework is in place will be essential to give the public confidence that no radioactive waste will be placed in a GDF unless it has independent regulatory approval and that there is a safety case that can clearly show*

that the facility will be safe, the radioactive waste is secure and the environment is adequately protected.

- 4.23. The response also described the fundamental importance of the relationship between the implementing organisation, the potential host community and the Representative Authority to the delivery of a GDF: *The development and implementation of a mechanism to ensure effective engagement of the potential host community and the Representative Authority in the siting process will be essential. This mechanism will enable the implementing organisation to share information on concerns to be discussed and responded to. The successful operation of this mechanism will be essential for trust to be built and established between all parties. It will also enable the potential host community and its Representative Authority to gain an understanding of the progressive development of the safety case and eventually, along with the implementing organisation, to take ownership of the safety case.*
- 4.24. The committee had some concerns about the proposals in the Consultation Document relating to the proposed decision making bodies and recommended that further consideration should be given to the concepts of a “Steering Group” and a “Consultative Partnership”. CoRWM thought that it should be the implementing body that should have the responsibility to manage (and hence steer) the project although the community should have the right to withdraw. *Rather than creating such bodies as a “Steering Group” or “Consultative Partnership”, CoRWM believes that the use of something similar to a “Local Liaison Committee” (LLC), that is familiar to communities living in the vicinity of existing nuclear installations, could deliver the need for public engagement, consultation and information exchange i.e. incorporating the role of a “Consultative Partnership”, without giving the impression that it will be the community and not the implementing organisation that will manage the project.*

CoRWM's Analysis of Deliberative Events on Consultation on siting of a GDF

- 4.25. As an input to the consultation on the review of the siting process for a geological disposal facility (GDF), DECC conducted a number of events. These were three, one-day sector workshops, four one-day national workshops, and four, two-day events that solicited the views of the public. Reports on these events are available on the [DECC website](#). (DECC a, 2014, DECC b, 2014, and DECC c, 2014) and an independent evaluation is being prepared which will be in the public domain.
- 4.26. CoRWM members, acting as observers and scrutinisers of the process, attended all sector workshops, three of the national workshops and two of the public events. At the sector and national events, the key objective was to consider the questions contained in the Consultation Document, whilst at the public dialogue events, day one focused on educating those who had never previously been involved on key issues relating to radioactive waste and day two considered a number of topics, largely non technical, contained in the Consultation Document. It was stressed at all events that

whilst DECC would take account of the views expressed, participants must submit a response to the consultation if they wished their views be formally considered.

- 4.27. Attendance at the national and sector events ranged from 11 to 50 participants and, given the interest in waste management, it is no surprise that the largest attendance of fifty participants was in Cumbria. Given the speed at which these events were set up and the logistical complexity of arranging them, it is perhaps not surprising that the numbers of participants were relatively low at some of the events. It would have been even lower if organisers had not allowed interchange to take place between sector and national events to suit diaries.
- 4.28. It is the overall view of CoRWM that, despite limited numbers participating, the different events served a useful purpose and were managed in an effective manner. Attempts were made in the short time available to attract as many experts as possible to the sector and national events resulting in a wide range of opinions being expressed. Various methods were used to select participants for the public events and of the meetings attended by CoRWM, a wide and diverse group of those who had never previously been engaged in the process participated. It is also the view of most CoRWM members that the facilitators: 3KQ and Ipsos Mori, acted in an highly effective manner and managed to keep a challenging programme, both in terms of technical content and time constraints, on course whilst operating in an unbiased and professional manner.
- 4.29. CoRWM members consider that the content of all three events was highly relevant and that DECC and others presented information without trying unduly to influence or lead. This was considered important by CoRWM given that one of the objectives at sectoral and national events was to "support stakeholders in compiling any responses that they wish to make to the public consultation." (DECC a, 2014 and DECC b, 2014).
- 4.30. It is the overall feeling of CoRWM that those who attended the events found them to be of considerable benefit. This specifically applies to those who might be potentially interested in finding out more as to what a GDF would entail and in particular, some local authorities who, up to that point, had shown little interest in nuclear waste matters. At the events involving members of the public, participants showed great enthusiasm and a thirst for knowledge. In particular though, CoRWM noted that many participants would have liked more information on the rationale for geological disposal as the preferred option.
- 4.31. CoRWM noted the wide spectrum of views expressed at the meetings. It is the considered view of CoRWM that all three types of events, despite being resource intensive to mount, were worthwhile exercises. Whilst the events were not part of the formal consultation, CoRWM hope that the views expressed will be fully taken into account as DECC develops its new process for the siting of the UK's higher activity

waste. Those who participated, in many cases at considerable time and expense, will wish to know how their views were, or were not, taken into account.

5. SCRUTINY AND ADVICE ON SCOTTISH GOVERNMENT HAW POLICY AND STRATEGY

- 5.1. The Committee has continued to provide advice on, and scrutiny of, the development of a Strategy to implement the Scottish Government HAW policy (SG a, 2011) of near-surface, near-site storage and disposal issued in January 2011.
- 5.2. After a somewhat hesitant start, the Implementation Strategy Project Board has met on five occasions in the year- 29th April, 31st July, 21st November 2013, 30th January and 14th March 2014 with the aim of producing a public consultation draft of the Implementation Strategy. It will not be accompanied by a Strategic Environmental Assessment (SEA) as this was produced for the Policy and is not considered necessary for the Implementation Strategy. Delivery of the Implementation Strategy has been through a series of Work Packages with either Scottish Government or industry representatives leading on delivery. These packages have covered inventory, overview of existing HAW management in Scotland, near surface waste compatibility, governance and regulatory issues. A Risk Register has been prepared which has been updated for each meeting.
- 5.3. Development of the Strategy started with the aim that the HAW Policy is implemented in a safe, environmentally-acceptable and cost-effective manner. The baseline assumes that waste will be stored on the site at which it arises for a period of at least 300 years. It is expected that the draft Strategy will set out the key stages for the effective implementation of the 2011 Policy including developing the concept for a near surface disposal facility where feasible. The Strategy should explain what actions will be taken /completed at key stages going forward, including for the management of those wastes not suitable for near surface disposal. The Scottish Government will need to ensure that for many decades, SEPA should be properly resourced with staff with the necessary expertise to monitor sites to give overall confidence to the implementation of the process and in particular to adjoining communities.
- 5.4. Issues of particular importance to CoRWM, and indeed to other stakeholders, are the operation of the proximity principle as against consolidation of waste on fewer sites than at present and how “near surface” as set out in the Policy will be defined. Further, the 2013 UK radioactive waste inventory published by DECC and NDA gave a clearer indication of the quantities of waste likely to arise in Scotland and covered by the Policy from both decommissioning and reactor dismantling.
- 5.5. CoRWM has had the opportunity to comment informally on the early draft Implementation Strategy and awaits publication for wider stakeholder comment of a revised, draft document.

- 5.6. The Scottish Government will be contributing to the UK's national report to the European Commission on the implementation of the Spent Fuel and Radioactive Waste Directive by August 2015.
- 5.7. A member attended the Scottish Nuclear Sites meeting on 24 October 2013 but the Committee could not be represented at the April 2013 meeting. These twice yearly meetings continue to provide a useful opportunity for the NDA, nuclear site operators, regulators, Ministry of Defence and community representatives to meet with Scottish Government officials to exchange information on past activities, current plans and hear about any local concerns.
- 5.8. The Chair, another Committee member and the secretary on 10 May 2013 had a useful meeting with the senior Scottish Government officials responsible for the preparation of the HAW Implementation Strategy and other nuclear related matters. CoRWM members provided an overview of the Committee's priorities for 2013-14. This gave a welcome opportunity to confirm the extent of CoRWM's commitment to provide advice and scrutiny in assisting the Scottish Government in preparing a high-level framework within which waste management decisions can be taken to implement the policy in a safe, environmentally acceptable and cost effective manner. It also allowed for CoRWM to reaffirm that it considered geological disposal was still the best option for long term management of HAW, to reiterate its concerns about the need to clarify what "near site" meant and to seek reassurances on the longer term future for those wastes not suitable for near surface disposal.

6. SCRUTINY OF AND ADVICE TO WELSH GOVERNMENT POLICY

CoRWM Meeting with Welsh Government and Natural Resources Wales (NRW)

- 6.1. In May 2013, CoRWM met with officials from the Welsh Government and Natural Resources Wales (NRW) (CoRWM doc. 3123). NRW had been set up on 1st April 2013 as the environmental agency for Wales with statutory responsibility for the regulation of radioactive substances in Wales including radioactive waste and transfrontier shipments of radioactive waste and spent nuclear fuel. CoRWM learned that NRW has support agreements with the Environment Agency in relation to the regulation of non-nuclear and nuclear sites as well as the permitting of transfrontier shipments. Under the nuclear support agreement, Environment Agency would carry out compliance assessment and permitting recommendations for nuclear sites, and NRW issues nuclear site permits and deals with enforcement action.
- 6.2. At that time, Welsh policy on higher activity radioactive waste had not changed i.e. the Welsh Government reserved its position on geological disposal.

CoRWM Chair Meeting with Welsh Minister

- 6.3. In February 2014, the CoRWM Chair, a member and a member of the secretariat met with the the Welsh Minister for Natural Resources and Food to discuss the advice that CoRWM provides to the Welsh Government on higher activity radioactive waste. The purpose of the meeting was to introduce the Minister to CoRWM and the work that the Committee undertakes.
- 6.4. Discussions were held on the CoRWM work plan and how the Committee will support the Welsh Government on a review of policy on the disposal of higher activity radioactive waste, should the decision be made to commence such a review.
- 6.5. The CoRWM Chair informed the Minister of the Committee's plans to hold a plenary meeting and a meeting with the public at Wylfa in September.
- 6.6. The Committee welcomed the Minister's desire for the Welsh Government to continue to play a positive role in discussions on radioactive waste management in the future.
- 6.7. Following this meeting, the Committee met with officials from the Welsh Government and Natural Resources Wales (NWR) (CoRWM doc 3152). CoRWM outlined its plans for the advice and scrutiny of Welsh policy proposed for its work programme for 2014-17.
- 6.8. CoRWM informed Welsh Government that they did not foresee any issues from the recent NDA publication on graphite wastes. In terms of volume, Wylfa has the largest reactor core and therefore volume of graphite but this is still relatively small in terms of all the Intermediate Level Waste in the UK inventory, and is currently being stored safely.

CoRWM informed the Welsh Government of on-going research that may be able to strip out contaminants from the graphite.

- 6.9. CoRWM was briefed on the activities relating to radioactive substances regulation carried out by Natural Resources Wales. CoRWM learnt that NRW intended to keep in place technical support agreements with the Environment Agency in relation to the regulation of non-nuclear and nuclear sites as well as the permitting of transfrontier shipments. CoRWM learned that these arrangements were under review, but that the technical support agreements would not be expected to change significantly in the foreseeable future.
- 6.10. CoRWM asked about nuclear specialist resource within NRW. Sustaining nuclear regulatory expertise in NRW is the subject of an NRW resource plan, and a number of options have been identified in the plan to sustain resilience. Nevertheless, CoRWM agreed that this issue needed active consideration.

Natural Resources Wales

- 6.11. In Wales, Natural Resources Wales (NRW) is the new environmental regulator with responsibility for permitting radioactive discharges. The Environment Agency (EA), (the environmental regulator for England) is presently supporting NRW through secondment of specialist EA staff and expects to support NRW's nuclear regulatory work for the foreseeable future. CoRWM is concerned by the limited resource available to NRW and the CoRWM Chair wrote to the NRW Chair in March 2014, requesting a meeting to discuss this further.

7. INTERIM STORAGE OF HIGHER ACTIVITY WASTES AND THE UK RADIOACTIVE WASTE INVENTORY

- 7.1. The task of reviewing the current position of interim storage of higher activity wastes and the UK Radioactive Waste Inventory was allocated 5% of effort in CoRWM's 2013-2014 Work Programme (CoRWM doc. 3100). The principal activities undertaken were: a meeting with regulators (CoRWM doc 3130); a visit to storage facilities at Bradwell in association with the NDA National Stakeholder Event (NDA b, 2013); a meeting with NDA (CoRWM doc. 3156); and evaluation of work on the new UK Radioactive Waste Inventory.

NDA National Stakeholder Event

- 7.2. A CoRWM observer attended the NDA National Stakeholder Event (October 2013 in Colchester; NDA b, 2013). As part of this event, there was an opportunity to visit the decommissioning Bradwell Magnox site, including a visit to the Interim Storage Facility and the Fuel Element Debris dissolution plant, the latter still under construction.
- 7.3. Magnox outlined their proposals for 'Care & Maintenance' of their sites, pending final site clearance, which met with some criticism from stakeholders.
- 7.4. NDA described proposals for consolidation of wastes in Scotland and the grouping of wastes in England and Wales (apart from Sellafield) into three areas- Wales, SE England and SW England. Consolidation of wastes was contentious and some stakeholders advocated the use of 'long term' rather than 'interim' storage since that better reflected its nature.

UK Radioactive Waste Inventory

- 7.5. In July 2013 several CoRWM members were interviewed by a contractor acting on behalf of the NDA, seeking views on the current UK Radioactive Waste Inventory website. CoRWM was one of a number of external stakeholder organisations interviewed with a view to identifying potential improvements to the website.
- 7.6. An off-line draft version of the website informed by this stakeholder engagement was demonstrated to a CoRWM member on the 31 January 2014 and was felt to be a significant improvement over the current version. The site has now been restructured to comprise three distinct sections; 'About the Inventory', 'About Radioactive Waste Management' and the inventory itself. This should result in much of the content remaining reasonably static with only the inventory data being regularly updated.
- 7.7. The 2013 Inventory has been finalised and was made publicly available via the current inventory website (www.nda.gov.uk/ukinventory) in February 2014. The 2013 inventory reports will be available on the new website, which is now due to be launched in June 2014. The website was originally due to go live in early 2014;

however, there were delays associated with security testing, including penetration testing.

- 7.8. Overall the 2013 Inventory figures are broadly the same as in 2010; however there have been a number of notable changes at site level, primarily due to refinements in waste forecasting estimates. For example, Magnox SMART inventory work has seen a reduction in certain waste projections, but with other data providers forecasting an increase.
- 7.9. In the 2016 inventory, NDA expects to develop its understanding of the uncertainty associated with the data, and to present better waste grouping data.
- 7.10. A National Inventory Forum comprising all SLCs, MOD, NDA, DECC, Regulators and RWMD has been established and held its first meeting in February 2014.
- 7.11. The NDA is considering establishing a Materials Archive for physical samples that need to be stored as they are still useful, for example to support future R&D and should therefore be retained.

Next Steps

- 7.12. The NDA is considering establishing a Materials Archive for physical samples that are considered to be valuable and should be retained, for example to support future R&D.

8. URANIUM, PLUTONIUM AND SPENT NUCLEAR FUEL

- 8.1. The task of reviewing the current position of spent fuel and plutonium management and implications for geological disposal was allocated 2% of effort in CoRWM's 2013-2014 work programme (CoRWM doc. 3100). The principal activity undertaken was a meeting of some members with NDA, held in September 2013 (CoRWM doc. 3155), both to inform the Committee of developments in NDA's thinking on the management of spent fuel and plutonium, and to provide a baseline of knowledge and understanding for the new Committee. Since this meeting, NDA has published new documents relating to the management of both uranium (NDA c, 2014) and plutonium (NDA d, 2014).
- 8.2. For spent fuels, the meeting explored the potential quantities of Magnox and AGR fuel remaining to be reprocessed, plans for the storage of unprocessed fuel and the development of contingencies in the event of loss of reprocessing capacity.
- 8.3. The NDA sees the management of plutonium as being a very long term programme because the capacity to fabricate any plutonium-containing materials, whether fuels or waste forms, is not programmed to be available until ca. 2030, and fabrication of plutonium-containing materials will take several decades. As well as Government's preferred option of reusing plutonium in mixed oxide fuel, the NDA is also evaluating other options. NDA is sensibly proceeding with caution because there is considerable uncertainty, the plutonium management programme is not wholly within NDA's control, and there is no need for early decisions.
- 8.4. The NDA discussed the issues around management of spent fuel and nuclear materials candidly and gave a strong impression that it had:
 - a clear understanding of its responsibilities with regard to managing spent fuel and nuclear materials;
 - clear plans for managing these materials;
 - a good understanding of potential risks to its plans; and
 - appropriate contingency options in development.
- 8.5. CoRWM's next steps in this work area will be to evaluate the NDA's recently published documents relating to management of uranium (NDA c, 2014) and separated plutonium (NDA d, 2014), with a view to a follow-up meeting with NDA and a meeting with Sellafield Ltd. in financial year 2014-2015.

9. SAFETY CASE REVIEW

- 9.1. CoRWM's emphasis changed this year from reviewing the generic safety case (NDA a, 2010 and CoRWM doc. 2994) to focusing on the role of the safety case in the MRWS process and specifically the role of the safety case in the siting of a GDF (CoRWM doc. 3138).
- 9.2. CoRWM's next steps will be to scrutinise the role of the safety case in the MRWS siting process, evaluate the potential use of the generic Safety case (NDA a, 2010) in site selection, and assess the potential for evolving the Generic Safety case into one or more site-specific safety cases.

10. REFLECTIONS ON THE PAST YEAR AND IMPLICATIONS FOR THE FUTURE

Revision to the GDF Siting Process

10.1. In this last financial year, CoRWM has closely observed DECC's progress in the siting review for geological disposal. CoRWM believes that the open and transparent process undertaken by DECC was necessary, timely and on the whole, conducted effectively. The Committee has spent the majority of its time in 2013-14 on the task of providing advice on, and scrutinising, the various stages of this review process. These tasks included:

- providing informal advice in advance of DECC's Call for Evidence
- providing informal advice following the call for evidence and the issue of the consultation, and
- providing formal advice in the form of CoRWM's response to the consultation
- scrutinising DECC's engagement programme and the overall process

10.2. CoRWM remains of the view that the advice it provided is vitally important to the successful delivery of geological disposal. The key parts of CoRWM's advice are summarised below:

- CoRWM believes that, whilst the radioactive waste disposal facility is referred to as a "Geological Disposal Facility", geology should not be seen in isolation and the suitability of a site or sites for radioactive waste disposal must be determined by the robustness of the post-closure safety case. CoRWM is not saying that any geology can be made safe by engineering, or that the GDF programme should proceed on the assumption that any site can be made safe by engineering. CoRWM is simply stating that geology is one component of the post closure safety case and that the role of geology in the safety case can differ between different sites. CoRWM believes that in any communication with potentially interested communities or other stakeholders, geological information must always be presented in the context of the safety case for the proposed GDF.
- CoRWM believes that any revised process should be as simple as possible, with the minimum number of decision points. CoRWM also believes that any new process should be seen more as a continuum of engagement rather than as a series of distinct stages.
- CoRWM believes that the implementing organisation should be the prime advocate of the GDF at both a national and local level.
- CoRWM acknowledges that deciding who is best to represent a community is very difficult decision which needs careful consideration, taking into account the wide range of local authority areas and structures. CoRWM also believes that

community representation must recognise the roles of all levels of local Government.

- Whilst the UK Government's preferred option is to have a single repository for all higher activity radioactive waste, CoRWM believes that the option of having more than one GDF should not be ruled out. There are many reasons why a single repository may not be the optimum solution, such as: availability of suitable geology of sufficient rock volume in a single location; incompatibility of radioactive waste types; or the attraction of a waste-specific GDF to accommodate legacy waste and avoid unnecessary additional storage facilities.
- CoRWM believes that the Government should ensure there is a clear and robust regulatory framework to control the design, construction, commissioning, operation, decommissioning and closure of the above-ground and underground facilities.
- The way in which independent technical advice is provided to communities in the process also needs careful consideration. CoRWM has said that it would be prepared to change its terms of reference to allow it to carry out the role of providing advice to appropriate external bodies should this be requested of the Committee.

10.3. CoRWM is appreciative of DECC's engagement with the Committee over the past year and is pleased that DECC has listened to the advice given, and taken on board a large proportion of it. Where advice has not been taken on board, DECC has provided a rationale to support its position.

Geological Screening

10.4. CoRWM recognises that whilst the need for national geological screening was called for by the majority of respondents to DECC's Consultation, the expectations of those asking for more information should be carefully managed due to the general lack of knowledge of geological data at the depth of a GDF. CoRWM believes that, given the relatively coarse scale at which screening would necessarily be carried out, the scarcity of data is such that it will be highly unlikely to rule out or rule in any areas of the country. It is for this reason that CoRWM has suggested looking at generic rock types and linking these to the generic safety cases that are available.

Stakeholder Engagement

10.5. CoRWM believes that DECC has genuinely sought opinion from stakeholders and the public. CoRWM also believes, through its on-going engagement with DECC that DECC has responded to the feedback that it has received.

10.6. CoRWM noted that the majority of respondents to the consultation came from Cumbria and there is much to be learnt from the process that went on there. However, CoRWM believes that any new siting process should be a forward-looking national process that results in successful siting of a GDF anywhere in England or one of the participating devolved administrations.

GDF Programme Momentum

10.7. Although the MRWS process came to a halt in January 2013, CoRWM believes that the provision of one or more GDFs is vital and hence the Government should ensure that momentum is not lost. CoRWM advises the UK Government to take robust steps to maintain the continuity and capability of the UK Government's policy staff to underpin the new White Paper over the next few years and instil public confidence in its commitment to and expertise in radioactive waste management.

Public Awareness of the importance of Geological Disposal

10.8. CoRWM believes that work should be done to improve public understanding of the nation's need for geological disposal to deal with its higher activity waste. CoRWM also believes that a greater understanding of radioactivity in general, and radioactive waste in particular, is vitally important to building trust. CoRWM is of the view that the Government must make sufficient resources available to produce informative material that is publicly engaging and accessible.

Transition of RWMD into an effective delivery/implementing organisation

10.9. CoRWM notes the transition of the RWMD, a division of the NDA to RWM Ltd, a wholly owned subsidiary of the NDA on 1st April 2014. In the next financial year, CoRWM will be scrutinising RWM's progress as it aims to become an effective GDF delivery organisation. CoRWM is and remains of the view that, in the longer term, RWM should become fully independent of the NDA.

Trust

10.10. CoRWM believes that it is vital that any new siting process must underpin the ability to build trust between communities that are interested in hosting a GDF, the delivery organisation (RWM), and the different levels of Government. CoRWM also believes that long-term political commitment is necessary.

Advice to and scrutiny of Scottish Government

10.11. CoRWM is looking forward to maintaining an engagement with the Scottish Government on the development of the implementation strategy to deliver its radioactive waste policy, especially in relation to the key policy objectives of passive

safety, no excessive burden on future generations and flexibility to respond to future technology.

- 10.12. CoRWM believes that the Scottish Policy for HAW should be implemented in a way that ensures that the management of HAW is safe, environmentally acceptable, and cost-effective. The current Policy assumes that waste will be stored on the site at which it arises for a period of at least 300 years. The proposed Implementation Strategy should aim to identify stakeholder preferences, behaviours and practices in the short, medium and long term which may necessitate changing this Policy baseline. Given the current policy, CoRWM believes that the Scottish Government will need to ensure that, for many decades, the Scottish Environment Protection Agency is properly resourced with staff with the necessary expertise to monitor sites to give overall confidence to the implementation of the process and in particular to adjoining communities. Similarly, as the regulation of the handling, treatment and storage of radioactive waste on nuclear licensed sites is the responsibility of the ONR, CoRWM believes that Scottish Government should ensure that ONR will have the necessary resources and expertise to deliver its Policy effectively.

Welsh Policy Position

- 10.13. CoRWM welcomes the Welsh Government's proposal to consider whether to review its current policy on HAW disposal and to issue this call for evidence. In June 2013 CoRWM reconfirmed its support for geological disposal as the best long-term management option for HAW (CoRWM doc. 3122). CoRWM's advice to the Welsh Government is that, in the light of its recent decision, geological disposal remains the best option for the long-term management of HAW.
- 10.14. CoRWM believes that since the Welsh Government is looking to review its policy on radioactive waste management, including the implications of new build, it will need to ensure that the environment regulator, Natural Resources Wales, is properly resourced.

CoRWM's Ways of Working

- 10.15. In the past year, CoRWM has responded to stakeholder feedback for CoRWM to be more transparent and has held four plenary meetings in public. CoRWM intends to continue with this way of working and will include, whenever possible, evening public meetings in conjunction with its plenary meetings in 2014-15.

11. REFERENCES**CoRWM Documents**

CoRWM doc 2994 (2012)	<u>Assessment Of The Generic Disposal System Safety Case - CoRWM Position Paper (CoRWM doc 2994)</u>
CoRWM doc 3100 (2013)	<u>CoRWM's Programme of Work 2013-2016</u>
CoRWM doc 3105 (2013)	Minutes of CoRWM Plenary February 2013 (national archive)
CoRWM doc 3112(2013)	Minutes of CoRWM Plenary March 2013 (national archive)
CoRWM doc 3119 (2013)	<u>CoRWM's Stakeholder Engagment strategy 2013-14</u>
CoRWM doc 3122 (2013)	<u>CoRWM Statement on Geological Disposal, June 2013</u>
CoRWM doc 3123 (2013)	<u>CoRWM Meeting with Welsh Government and Natural Resources Wales (NRW)</u>
CoRWM doc 3124 (2013)	<u>CoRWM Meeting with Scottish Government, May 2013</u>
CoRWM doc 3130 (2013)	<u>CoRWM Meeting with Regulators, July 2013</u>
CoRWM doc. 3133 (2013)	<u>CoRWM Comments on the GDF Siting Process Review, August 2013</u>
CoRWM doc 3135 (2013)	Minutes of CoRWM Plenary, September 2013
CoRWM doc 3138 (2013)	<u>CoRWM's Response to the GDF Siting Process Consultation</u>
CoRWM doc 3139 (2013)	<u>Minutes of CoRWM Meeting, November 2013</u>
CoRWM doc 3140 (2013)	<u>CoRWM's Summary of its analysis of Call for Evidence Responses (GDF Siting Review)</u>
CoRWM doc 3141 (2013)	<u>CoRWM's Analysis of Call for Evidence Responses (for DECC's GDF Siting Review)</u>
CoRWM doc. 3146 (2014)	<u>Minutes of CoRWM Plenary, January 2014</u>
CoRWM doc 3150 (2014)	<u>Minutes of CoRWM Plenary, February 2014</u>
CoRWM doc 3152 (2014)	<u>Minutes: meeting with Welsh Government and NRW (CoRWM doc. 3152)</u>
CoRWM doc. 3155 (2014)	<u>CoRWM Update: Spent Fuel and Nuclear Materials</u>
CoRWM doc. 3156 (2014)	<u>CoRWM: A short update on Higher Activity Wastes (HAW)</u>
CoRWM doc 3159 (2014)	<u>CoRWM Plenary Minutes, March 2014</u>

Other Documents

DECC a (2014)	<u>Report from national workshops held during the review of the siting process for a geological disposal facility (GDF)</u>
DECC b (2014)	<u>Report from sector workshops held during the review of the siting process for a Geological Disposal Facility (GDF)</u>
DECC c (2014)	<u>Public attitudes to the revised Geological Disposal Facility (GDF) Siting Process</u>
NDA a (2010)	<u>Geologic Disposal Generic Environmental Safety Case – Main Report, Ref no. NDA/RWMD/021</u>
NDA b (2013)	<u>National Event Meeting Report October 2013</u>
NDA c (2014)	<u>Uranics – Credible Options Summary (Gate A) – v 1.0 Doc. Ref: SMS/TS/B2-UR/002/A Doc ID: 21083362</u>

NDA d (2014)	<u>Progress on approaches to the management of separated plutonium – Position Paper – v1.0 Doc. Ref: SMS/TS/B1-PLUT/002/A Doc ID: 21100718</u>
SG a (2011)	<u>Scotland's Higher Activity Waste Policy (2011)</u>

12. ACRONYM LIST

AGR	Advanced gas cooled reactor (A type of reactor with a graphite core, and Uranium oxide fuel in steel cladding with a graphite sleeve).
CoRWM	Committee on Radioactive Waste Management
DECC	Department of Energy and Climate Change
EA	Environment Agency (England's Environmental Regulator)
GDF	Geological disposal facility
GDIB	Geological Disposal Implementation Board (set up by DECC and chaired by a DECC Minister)
GDSG	Geological Disposal Steering Group (a UK Government group that reports to GDIB)
HAW	Higher Activity Waste
HAWIS	HAW Implementation Strategy
IAEA	International Atomic Energy Agency (a United Nations agency)
ILW	Intermediate level waste
LoC	Letter of Compliance (previously Letter of Comfort)
MOD	Ministry of Defence
MRWS	Managing Radioactive Waste Safely (the UK programme for the management of higher activity wastes), now referred to as the GDF Programme
NDA	Nuclear Decommissioning Authority
NEA	Nuclear Energy Agency (part of the Organisation for Economic Cooperation and Development)
NERC	Natural Environment Research Council
NGO	Non-Governmental Organisation

NRW	Natural Resources Wales (Welsh Environmental Regulator)
NWRF	Nuclear Waste Research Forum (a group convened by NDA)
NWF	Nuclear Waste Fund (in Sweden)
OECD	Organisation for Economic Co-operation and Development
ONR	Office for Nuclear Regulation - the regulator of safety, security and safeguards at nuclear facilities and transport of radioactive materials.
PSE	Public and stakeholder engagement
RATE	Radioactivity and the Environment (a NERC research programme)
R&D	Research and development
RWMD	Radioactive Waste Management Directorate (of NDA), from 1 April 2014 became RWM Limited.
RWM Ltd.	Radioactive Waste Management Limited, a wholly owned subsidiary of the NDA charged with delivering Geological Disposal, created on 1 April 2014.
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SKB	Svensk Kärnbränslehantering AB (Swedish Nuclear Fuel and Waste Management Company)
SLC	Site licence company (a company that runs an NDA site, under contract to the NDA, and holds the nuclear site licence)
SF	Spent Fuel
SSM	Swedish Radiation Safety Authority

ANNEX A CORWM EXPENDITURE 2013-14

Table 1 shows CoRWM's budget out-turn for the year, broken down by main spending areas. The budget was set at £375k.

Table 1 CoRWM's Budget Out-Turn

<i>Budget Item</i>	<i>Budget (£k)</i>	<i>Out-turn (£k)</i>
Member fees and expenses ¹	294	193.6
Plenary meetings	34	41.6
Website	5.2	5.2
Technical support	19.8	13.7
Public and stakeholder engagement ²	5	0
Visits	7	5.6
Miscellaneous Meetings	10	8.3
Total	375	268

¹ Member fees and expenses include attendance at CoRWM plenaries, meetings with stakeholder, public-facing meetings and presenting at/attending conferences. This figure includes Employer National Insurance Contributions charged to CoRWM's cost centre.

² The costs for members of the public to attend open plenary meetings are included under plenary meetings.

CoRWM is not required to report the fees that individual members received, but it publishes this information in the interests of transparency. These are shown in Table 2.

The standard fees are those paid at the rates specified in Members terms of appointment. These state that the Chair can claim £450 a day for 1.5 days a week, the Deputy Chair can claim £380 for 1 day a week and Members can claim £300 a day for 1 day a week (all for 52 weeks in a year).

Table 2 Fees Paid to CoRWM Members

<i>Name</i>	<i>Standard Fees (£k)</i>
Laurence Williams (Chair)	27.6
William Lee ¹	3.8
Gregg Butler	12.1
Brian D Clark	11.3
Paul Davis	12.9
Simon Harley	13.8
Francis Livens	14.2
Rebecca Lunn	10.9
Helen Peters	9.3
John Rennilson	14.3
Stephen Newson	9.3
Lynda Warren	8.1
Janet Wilson	6.2
Total	153.8

¹ Member until June 2013

ANNEX B CORWM MEMBERSHIP FROM 1 APRIL 2014

Laurence Williams is an international authority on nuclear safety and security regulation. He is Professor of Nuclear Safety and Regulation at the University of Central Lancashire and his additional roles include:

- Visiting Professor at King's College London
- Visiting Senior Fellow at the National Nuclear Laboratory
- Member of the High Scientific Council of the European Nuclear Society
- Chair of the Nuclear Institute Editorial Board for Nuclear Future
- Member of the Defence Nuclear Safety Committee
- external examiner for the Nuclear Department of the Defence Academy
- Member of the Chernobyl International Advisory Group to the European Bank for Reconstruction and Development

Formerly, Laurence was:

- the Chief Engineer and Director for Nuclear Safety, Security and Environment at the Nuclear Decommissioning Authority
- a member of the board of the Health and Safety Executive and Her Majesty's Chief Inspector of Nuclear Installations
- chairman of the IAEA Commission on Safety Standards, where he was responsible for overseeing the development of international standards in the areas of nuclear safety, radiation protection, radioactive waste management and the transport of nuclear materials



Francis Livens has held a radiochemistry position at the University of Manchester since 1991. He worked for over 30 years in environmental radioactivity and actinide chemistry, starting his career with the Natural Environment Research Council, where he was involved in the response to the Chernobyl accident. At the University of Manchester, he has worked in many aspects of nuclear fuel cycle research, including effluent treatment, waste immobilisation and actinide chemistry. He was the founding director of the Centre for Radiochemistry Research, established in Manchester in 1999 and is now Research Director

of the Dalton Nuclear Institute and Director of the EPSRC-funded Next Generation Nuclear Centre for Doctoral Training. He has acted as an advisor to the nuclear industry both in the UK and overseas.

Current term of office ends: **31 October 2014**



Gregg Butler is Co-Director of Integrated Decision Management Ltd, Professor of Science in Sustainable Development at the University of Manchester, and Head of Strategic Assessment for the Dalton Nuclear Institute. He has a BSc and PhD in metallurgy from Swansea University, and over 45 years' experience in the nuclear industry, having worked in most parts of the fuel cycle in R&D, planning, commercial, plant operations, plant and site management and director roles. He was a member of the Radioactive Waste management Advisory Committee from 1994 – 2004. Current research interests include Generic Feasibility Assessment of nuclear systems, plutonium use, the sustainability of nuclear power and its regulation, and effectiveness of decision making methodologies in bringing robust conclusions to be reached taking account of economics, regulatory outcomes, and stakeholder views and values.

Current term of office ends: **25 November 2016**



John Rennilson is a Chartered Town Planner and a Chartered Surveyor with over 37 years' experience in local government. He served as County Planning Officer of North Yorkshire County Council (1984-1996) and as Director of Planning & Development for Highland Council (1996-2008). His career has involved balancing development needs and environmental issues. Public involvement has been at the heart of all development considerations from the local to the strategic level. He has had considerable experience of the energy industry, including development of the Selby Coalfield, coal-fired electricity generation at Drax and Eggborough, and decommissioning Dounreay, as well as renewable

electricity generation and transmission issues across the Highlands. Current term of office ends: **31 October 2014**



Rebecca Lunn is a Professor in Civil Engineering at the University of Strathclyde. She has over 20 years of research experience in hydrogeology, with a particular focus on deep flow systems, hydromechanics and the spatial and temporal evolution of rock permeability. In 2011, she was awarded the Geological Society Aberconway Medal for research of particular relevance within industry. Her research experience is multi-disciplinary and she currently collaborates closely with structural geologists, seismologists, mathematicians,, microbiologists, psychologists and statisticians. She leads two multi-partner EPSRC research consortia in nuclear waste disposal and decommissioning: 'Biogeochemical Applications in Nuclear Decommissioning and Disposal' (BANDD) and 'SAFE Barriers'. Current research interests include: new monitoring technologies for nuclear waste disposal and geological carbon storage sites; design of novel grouts for injection as ground barriers and for sealing fractures in rocks; and exploring public understanding of science, such as carbon storage and shale-gas extraction, to inform the regulators' approach to public information and decision making. She currently holds no other ministerial public appointment.

Current term of office ends: **31 October 2014**



Helen Peters is a Legal Director at Pinsent Masons LLP. She is a solicitor specialising in all aspects of UK, EU and international environmental law and policy with significant experience in nuclear regulation and waste management. Helen is recognised as a leading UK environmental lawyer by Chambers Legal Directory and Legal 500. Helen has been engaged in several of the leading nuclear transactions in the UK in recent years, advising on environmental and regulatory matters for nuclear installation owners and operators as well as for public bodies and contractors. She is the UK Environmental Law Association regional

convenor for the North East and member of the UKELA waste working party. She is also a corporate member of the Nuclear Industries Association and World Nuclear Association.

Current term of office ends: **25 November 2016**



Stephen Newson is a Chartered Engineer and Fellow of the Institute of Materials, Minerals and Mining and is currently working as a Mining Consultant on a range of underground projects in the UK and overseas. He has over 40 years of mining experience including operational management, research and development, business planning and the design and construction of large underground excavations. He spent 16 years with British Coal, latterly responsible for the specification and approval of underground tunnel and coalface support systems on a national basis. During this time his was also a UK representative on the European Experts' Committee on tunnelling systems. He has worked for a number of major companies on new mine construction and expansion projects in Australia, Asia, North America and Africa. He has also, as a consultant, previously worked on underground design and planning projects related to the potential disposal of radioactive waste underground.

Current term of office ends: **25 November 2016**



Janet Wilson is a Chartered Engineer, a Fellow of the Institution of Mechanical Engineers, a Liveryman of the Worshipful Company of Engineers and has a PhD associated with nuclear reactor safety.

She has had a long and varied career in the nuclear industry starting with reactor design, safety case and commissioning in the early '80s before spending 17 years in various senior

regulatory roles for ONR both in the UK and internationally across all sectors both civil and defence. Janet was part of the team that established the Nuclear Decommissioning Authority which she joined in 2005 to develop their first Strategy. Janet became the NDA's Director of Nuclear Assurance and was a non-Executive Director of the Civil Nuclear Police Authority.

In 2011 Janet moved to the private sector as an expert Consultant in a variety of roles including working in South Africa driving forward the licensing of their ambitious new build programme. In 2012 she was appointed to the Government's Committee on Radioactive Waste Management. She joined Horizon Nuclear Power in October 2013 as Director of Licensing and Permissions.

Current term of office ends: **25 November 2016**



Simon Harley is Professor of Lower Crustal Processes in the School of Geosciences at the University of Edinburgh. An international expert on the evolution of continental crust, his research integrates geological mapping with experimental and microanalytical studies of the stabilities of minerals and their behaviour at high temperatures and pressures. He has conducted geological mapping projects in diverse and complex basement areas in Australia, India, Norway, Greenland, Scotland and Antarctica. Professor Harley is a Fellow of the Royal Society of Edinburgh and in 2002 was awarded the Imperial Polar Medal in recognition of his contributions to Antarctic Earth Science.

Current term of office ends: **31 October 2014**



Brian D Clark – is Professor of Environmental Management and Planning at Aberdeen University. He was a Board Member of the Scottish Environment Protection Agency (SEPA)

and Chairman of the North Region Board and the Planning & Finance Committee of SEPA from 2000 to 2008. He has served on CoRWM since 2003. With forty years' experience, he is a specialist in environmental impact assessment (EIA), strategic environmental assessment (SEA), urban and rural planning and public and stakeholder engagement (PSE). He was honoured in 1987 by being made a founder member of UNEP's Global 500 Award. He is a governor of the James Hutton Institute, a member of the Scottish Government Local Boundary Commission from 2007-2013 and a founder member of the Institute of Environmental Assessment (IEA), now the Institute of Environmental Management and Assessment (IEMA).

Current term of office ends: **31 October 2014**



Paul Davis is the owner of EnviroLogic Inc., an environmental and water resources consulting company in Durango, Colorado, USA. He has over 30 years of experience in the geologic disposal of radioactive waste, starting with site characterization of the Waste Isolation Pilot Project (WIPP) for the United States Geological Survey. At Sandia National Laboratories, he participated in and led the development of performance assessment methodologies for geologic repositories in bedded salt, basalt, and volcanic tuff for the US Nuclear Regulatory Commission, specializing in groundwater flow and transport modelling and the quantification and propagation of uncertainty. He also provided technical support for the development of safety standards for high-level waste disposal for the U.S. Environmental Protection Agency and led the WIPP team responsible for the integration of site characterization, research, performance assessment and regulatory compliance. He is currently collaborating with Los Alamos National Laboratories in the quantification of uncertainty in stable isotope analyses and with Moscow State University, Russia in the development of regional groundwater flow models.

Current term of office ends: **25 November 2016**



Lynda Warren is Emeritus Professor of Environmental Law at Aberystwyth University. She is a member of the Board of Natural Resources Wales, the body responsible for environmental regulation in Wales, and sits on Defra's Science Advisory Council. She was a member of the Royal Commission on Environmental Pollution until its closure in March 2011. She has postgraduate degrees in marine biology and law and has pursued an academic career first in biology and latterly in environmental law. She has over 100 academic publications, including a number on radioactive waste management law and policy. Lynda has over 15 years' experience of radioactive waste management policy. She has been a member of CoRWM since 2003 and, before that, was a member of the Radioactive Waste Management Advisory Committee (RWMAC), chairing its working group on Dounreay. She was on the Board of British Geological Survey until the Board was disbanded in April 2011 and is an associate of IDM, a consultancy engaged in environmental policy advisory work, mainly in the nuclear sector. She was a member of International Board of Counsellors for the Japanese radioactive waste management body NUMO.

ANNEX C CoRWM'S TERMS OF REFERENCE

Introduction

1. Following the announcements by UK Government and the devolved administrations (Government), on 25 October 2006, a new Committee on Radioactive Waste Management (CoRWM) was appointed under these revised terms of reference designed to meet the future needs of the Government's Managing Radioactive Waste Safely (MRWS) programme. The Committee is jointly appointed by UK Government and relevant devolved administration Ministers. Details of its roles, responsibilities and membership are outlined below.

CoRWM's Role and Responsibilities

2. The role of the reconstituted Committee on Radioactive Waste Management is to provide independent scrutiny and advice to UK Government and devolved administration Ministers on the long-term management of radioactive waste, including storage and disposal. CoRWM's primary task is to provide independent scrutiny on the Government's and Nuclear Decommissioning Authority's (NDA's) proposals, plans and programmes to deliver geological disposal, together with robust interim storage, as the long-term management option for the UK's higher activity wastes.
3. Sponsoring Ministers (from the Department of Energy and Climate Change (DECC) and the devolved administrations) will agree a three-year rolling programme and budget for CoRWM's work on an annual basis. Any in-year changes will be the subject of agreement by sponsoring Ministers.
4. CoRWM will provide appropriate and timely evidence-based advice on Government and NDA plans for the delivery of geological disposal under the Managing Radioactive Waste Safety programme. The work programme may include review of activities including waste packaging options, geological disposal delivery programmes and plans, site selection processes and criteria, and the approach to public and stakeholder engagement. Testing the evidence base of the plans for the delivery of geological disposal will be a key component of the work. As well as ongoing dialogue with Government, the implementing body, local authorities and stakeholders, CoRWM will provide an annual report of its work to Government.
5. CoRWM shall undertake its work in an open and consultative manner. It will engage with stakeholders and it will publish advice (and the underpinning evidence) in a way that is meaningful to the non-expert. It will comply, as will sponsoring departments, with the Government Chief Scientific Advisor's Guidelines on the Use of Scientific and Engineering Advice in Policy Making² as well as other relevant Government advice and guidelines. Government will respond to all substantive advice. Published advice and reports will be made available in respective Parliaments/Assemblies, as will any Government response. CoRWM's Chair will attend Parliamentary/Assembly evidence sessions as and when required.
6. With the agreement of CoRWM's sponsoring Ministers, other parts of Government, the NDA and the regulatory bodies may request independent advice from CoRWM. Relevant

² www.bis.gov.uk/assets/bispartners/goscience/docs/g/10-669-gcsa-guidelines-scientific-engineering-advice-policy-making.pdf

Parliamentary/Assembly Committees may also propose work to sponsoring Ministers, for consideration in the work programme. CoRWM's priority role is set out in paragraph 2 although sponsoring Ministers may also ask the Committee to provide advice on other radioactive waste management issues as necessary.

7. In delivering its annual work programme, and where there is a common interest, the Committee will liaise with regulators and any bodies established to advise Government and the regulators.
8. CoRWM shall consist of a Chair and up to fourteen members, one of whom will be appointed by Ministers as Deputy Chair on the recommendation of the Chair. Members will not be mandated representatives of organisation or sectoral interests and the skills and expertise which will need to be available to the Committee will vary depending on the programme of work. For example, the relevant skills may include: radioactive waste management, nuclear science, radiation protection, environmental law, environment issues, social science (including public and stakeholder engagement), geology/geochemistry/ hydrogeology, finance/economics, civil engineering/underground construction technology, geological disposal facility performance/safety issues, materials science, environmental impact assessment, local government, planning, regulatory processes and ethics. Sponsoring Ministers may review the membership of the Committee, and the skills and expertise required.
9. Appointments will be made following the Office of the Commissioner for Public Appointments (OCPA) code of practice. Appointments will usually be for two to four years and sponsoring Ministers retain the right to terminate appointments at any time in light of individual members' performance, changes in CoRWM's work requirements, or completion of the work required of CoRWM.
10. The Committee, as agreed in the annual plans, may co-opt additional expertise to form or support temporary sub-groups set up to examine specific and defined problems.

Programme of Work

11. To support its work, CoRWM will need to familiarise itself with Government policy in this area, including ongoing meetings with relevant government departments and the NDA. The outline framework within which CoRWM is then expected to work is:
 - (i) *recognising the policy framework within which it will operate including the roles and responsibilities of Government and the NDA in relation to CoRWM's own advisory role;*
 - (ii) *scrutinising Government and NDA proposals, plans and programmes to implement geological disposal and other radioactive waste management issues on which Government might seek advice as agreed in CoRWM's work plan;*
 - (iii) *formulation of advice and reporting to Government based on the best available evidence and informed by the views of stakeholders and the public;*

12. Each year, CoRWM will prepare its proposed work programme for the next three years, in conjunction with Government, the NDA and regulators, taking account of work by other advisory bodies (see paragraph 7 above). The programme will include details of specific areas of work, reports which it intends to produce, the proposed use of sub-groups and any other activities or events, including proposals for public and stakeholder engagement. CoRWM will submit its proposed three-year work programme to its sponsoring Ministers for discussion and agreement.
13. In familiarising themselves with the relevant background and issues, Members will make themselves aware, and take account, of previous engagement and reports in the Managing Radioactive Waste Safely programme, the UK Radioactive Waste Inventory and the nature of current and expected future UK holdings of nuclear materials. CoRWM will take account of existing technical assessments and research into radioactive waste management in the UK and elsewhere. In particular, it is recognised that CoRWM will need to engage with NDA given that the Committee's advice will directly impinge on the long-term responsibilities of NDA. CoRWM will also take account of other relevant policy developments.
14. The Chair will submit a report to Ministers by 30 June each year on the delivery of the agreed work programme. This will be made available in the UK and Scottish Parliament, the National Assembly for Wales and the Northern Ireland Assembly.

Access to Other Sources of Expertise

15. Members of CoRWM itself will not have all the skills and expertise necessary to advise Government. The Committee will need to decide how best to secure access to other appropriate sources of expert input during the course of its work. Within this, it will have option of setting up expert sub-groups containing both Members of CoRWM itself and other appropriate co-opted persons. A member of CoRWM will chair any sub-group of this nature and ensure its effective operation, as well as provide a clear line of responsibility and accountability to the main Committee, and hence to Ministers. This approach will enable the Committee to draw on a broad range of expertise in the UK and elsewhere.
16. The number of such sub-groups will be kept to the minimum necessary. Their role will be that of providing advice for the main Committee to consider and assess as it sees fit, and managing any activity which CoRWM delegates to them. It will be for the main Committee to assess and decide upon the advice it receives from such sub-groups. CoRWM may also utilise other appropriate means of securing expert input, such as sponsored meetings and seminars. The Chair will ensure that sub-group work and all other activities are closely integrated.

Public and Stakeholder Engagement

17. CoRWM must continue to inspire public confidence in the way in which it works. In order to secure such confidence in its advice it will work in an open and transparent manner. Hence, its work should be characterised by:
 - a published reporting and transparency policy;
 - relevant public and stakeholder engagement as required;
 - clear communications including the use of plain English, publishing its advice (and the underpinning evidence) in a way that is meaningful to the non-expert;

- making information accessible;
- encouraging people to ask questions or make their views known and listening to their concerns;
- providing opportunities for people to challenge information, for example by making clear the sources of information and points of view on which the Committee's advice is based;
- holding a number of its meetings in public.

Responsibilities of the Committee and its Members

18. CoRWM will have a corporate responsibility to deliver its advice to sponsoring Ministers in accordance with agreed work plans. It will be for Ministers, with appropriate reference to their respective Parliaments and Assembly, to take decisions on the advice it receives and to give directions to the NDA as necessary on any subsequent changes required in the delivery of geological disposal of the UK's higher activity radioactive waste.
19. All members will need to be effective team workers, with good analytical skills and good judgement besides a strong interest in the process of decision-making on difficult issues. A number of them will need experience of project management, advising on scientific and technical issues directly relating to radioactive waste management, public and stakeholder engagement, excellent drafting and communication skills, or business experience and knowledge of economics.
20. The Chair, in addition, will be capable of successfully and objectively leading committee-based projects, grasping complex technical issues, and managing a diverse group effectively and delivering substantial results, presenting progress and outcomes in public. He or she will be a person with appropriate stature and credibility.

Role of the Chair

21. The Chair will be responsible for supervising the CoRWM work programme and ensuring that the Committee's objectives are achieved. The Chair will be responsible for advising Ministers promptly if he or she anticipates that the Committee will not complete its agreed work programme indicating what remedial action might be taken. He or she will be the main point of contact with the public and the media, in presenting progress and answering questions. The Chair will meet Ministers on appointment, and then at least annually along with other members as appropriate. Notes of these meetings will be published. The Chair will ensure CoRWM submits its annual written report to Ministers, by 30 June of each year. The Chair may be required to present the position of CoRWM to Parliament or Assembly committees and representatives as appropriate. The report will set out, among other things, CoRWM's progress with the agreed work programme, advice deriving from it and costs incurred. Ministers will also appoint a Deputy Chair who can assist the Chair as the latter sees fit.

Role of Members

22. Members will work, under the Chair's supervision, to the programme agreed with sponsoring Ministers, so as to ensure its satisfactory delivery. Members will have a collective responsibility to ensure achievement of CoRWM's objectives and delivery of its work programme. Individual Members may be appointed by the Chair to undertake specific, active roles, for example chairing sub-groups or in representing CoRWM in meetings with the public, organisations who are contributing to the work, or the media. All

members will abide by CoRWM's Code of Practice and will be subject to individual performance appraisal as laid down by the Cabinet Office guide (see next paragraph).

Standards

23. CoRWM is set up by, and answerable to Ministers and is funded by the taxpayer. It must therefore comply with the Cabinet Office guide "[Public Bodies: a Guide for Departments](#)".
24. These and other relevant procedural requirements are set out in CoRWM's Code of Practice which Members will agree to, prior to appointment.

Resources

25. Sponsoring Ministers will provide CoRWM with a secretariat and budget to enable it to carry out its agreed programme of work. The Chair and Members will have a collective responsibility for delivering the work programme within the agreed budget, although the Chair may request sponsoring Ministers for adjustment to this budget should this be considered necessary.

Payments

26. The Chair and Members will be paid for their work for CoRWM at agreed daily rates. They will also be fully reimbursed for all reasonable travel and subsistence costs incurred during the course of their work.

ANNEX D TABLE OF MEETINGS FROM 1ST APRIL 2013 – 31ST MARCH 2014

Date	Meeting (and reference)	Attendance Capacity
11&12 April 2013	RWMD Technical Advisory Panel	Observer
12 April 2013	Institution of Civil Engineers, Presidential Debate on the Challenges of Nuclear Waste Management	Speaker
17 April 2013	CoRWM Chair meeting with John Clarke, NDA CEO	Participant
17 April 2013	NDA Research Board Meeting	Observer
23 April 2013	NWRF Decommissioning Working Group	Observer
23 April 2013	Westminster Energy, Environment & Transport Forum	Presenter
24 April 2013	Meeting with Welsh Government and Natural Resources Wales (CoRWM doc. 3123)	Participant
24 & 25 April 2013	Closed Plenary Meeting (CoRWM doc. 3121)	Committee meeting
29 April 2013	Scottish Government Higher Activity Waste Implementation Strategy Project Board	Observer
30 April 2013	Nuclear Issues Group: Frameworks for managing existing and new waste streams	Speaker
8 May 2013	CoRWM Sponsors Meeting	Participant
10 May 2013	Scottish Government Meeting (CoRWM doc. 3124)	Participant
14 May 2013	Geological Disposal Steering Group (GDSG)	Observer
23 May 2013	CoRWM workshop on MRWS	Committee meeting
24 May 2013	CoRWM meeting with DECC on MRWS	Participant
10 & 11 June 2013	Sellafield visit	Visit
14 June 2013	CoRWM meeting to finalise Annual Report 2012-13 (CoRWM doc. 3107)	Committee Meeting
17 & 18 June 2013	Nuclear Industry Forum	Speaker
18 June 2013	Extraordinary GDSG	Observer
19 June 2013	Meeting with Chinese academy of sciences	Participant
27 June 2013	Extraordinary GDSG	Observer
2 July 2013	Meeting with regulators (CoRWM doc. 3130)	Participant

2 & 3 July 2013	Closed Plenary Meeting (CoRWM doc. 3132)	Committee Meeting
4 July 2013	Geological Disposal Steering Group (GDSG)	Observer
8 July 2013	CoRWM Chair meeting with Copeland Borough Council	Participant
9 July 2013	CoRWM Chair meeting with Allerdale Borough Council	Participant
9 July 2013	CoRWM Chair meeting with Cumbria County Council	Participant
Various – July 2013	meeting on Radioactive Waste Inventory Website review	Participant
10 July 2013	CoRWM – DECC Sponsors Meeting	Participant
11 July 2013	UK Decommissioning and Radioactive Waste conference	Speaker
15 July 2013	CoRWM Chair meeting with Managing Director, RWMD	Participant
31 July 2013	Scottish Government Higher Activity Waste Implementation Strategy Project Board	Observer
30 August 2013	CoRWM Chair meeting with Chair of NDA Research Board	Participant
3 September 2013	CoRWM Chair Meeting with Head of Radioactive Substances Regulation, Environment Agency	Participant
10,11 & 12 September 2013	CoRWM Visit to Sweden	Participant
12 September 2013	Geological Disposal Steering Group (GDSG)	Observer
16 & 17 September 2013	Closed plenary meeting (CoRWM doc. 3135)	Committee Meeting
23 September 2013	Meeting with NDA on Spent Fuel & Nuclear Materials	Participant
23 September 2013	CoRWM Chair Meeting with Head of DECC GDF Programme	Participant
26 September 2013	GDF users groups	Observer
2 October 2013	NDA Research Board Meeting	Observer
3 & 4 October 2013	RWMD Technical Advisory Panel	Observer
7 to 9 October 2013	NEA Symposium on Long Term Safety Case	Participant
8 & 9 October 2013	Meeting with Swedish National Council for Nuclear Waste, hosted by RWMD	Participant
10 October 2013	CoRWM closed meeting to discuss CoRWM's Response to the Siting Consultation	Committee Meeting

10 October 2013	CoRWM Sponsors Meeting	Participant
21 & 22 October 2013	Nuclear Institute Conference	Speaking
21 & 22 October 2013	NDA Stakeholder Event (NDA b, 2013)	Observer
24 October 2013	Chair's meeting with Baroness Verma	Participant
24 October 2013	Scottish Nuclear Sites Meeting	Observer
29 & 30 October 2013	Implementing Geological Disposal of Radioactive Waste –Technology Platform 4th Exchange Forum	Observer
30 October 2013	SGHAWIS Project Board	Observer
7 November 2013	CoRWM meeting with RWMD (CoRWM doc. 3139)	Participant
8 November 2013	Plenary meeting (CoRWM doc. 3139)	Committee Meeting
12 November 2013	Geological Disposal Steering Group	Observer
12, 13, 14, 19, 22, 23, 25, 27 November and 7 December 2013	DECC GDF siting consultation stakeholder events	Observer
7 & 8 January 2014	CoRWM plenary (CoRWM doc. 3146)	Committee Meeting
15 January 2014	GDF User Group	Observer
29-30 January 2014	RWMD Technical Advisory Panel	Observer
February 2014	CoRWM Sponsors Meeting	Participant
11 th February 2014	Korean Radioactive Waste Agency documentary	Interview
18 th February 2014	Geological Disposal Steering Group	Observer
19 February 2014	Meeting with Welsh Minister	Participant
19 February 2014	Meeting with Welsh Government and Natural Resources Wales (CoRWM doc. 3152)	Participant
19 February 2014	Closed Meeting	Participant
20 February 2014	Open Plenary Meeting (CoRWM doc. 3150)	Participant
20 March 2014	Closed Plenary	Participant
20 March 2014	Meeting with DECC officials	Participant

21 March 2014	Open Plenary (CoRWM doc. 3159)	Participant
20 March 2014	Geological Disposal Steering Group	Observer
26 March 2014	CoRWM Sponsors Meeting	Participant

ANNEX E CORWM'S RESPONSE TO THE GDF SITING PROCESS CONSULTATION, CORWM DOC. 3138.

The following was submitted to DECC in December 2013

CoRWM

1. The [Committee on Radioactive Waste Management \(CoRWM\)](#) is a non-departmental advisory committee to Government. CoRWM provides independent scrutiny and advice on the long-term management of higher activity radioactive wastes to the UK Government and the Governments of the Devolved Administrations in Scotland, Wales and Northern Ireland. As a non-departmental public body, CoRWM reports directly to Ministers and its responsibilities are set out in its [terms of reference](#). In [CoRWM's work programme \(CoRWM doc. 3100\)](#) for 2013-14, 75% of resource was allocated to scrutinizing and providing advice on the GDF siting process.

How CoRWM formulated this response

2. The Committee has followed the MRWS process closely from its inception, and scrutinised DECC and the NDA's plans and programmes throughout. CoRWM has provided feedback to DECC on this process when requested and has commented on its development. Since the decision not to continue with the MRWS process in Cumbria was made in January 2013, CoRWM has reflected on the process at length at its plenary meetings. The Committee has published its deliberations in the form of [plenary meeting minutes \(CoRWM docs. 3135 and 3139\)](#) and in [CoRWM's ninth annual report \(2012-13\) \(CoRWM doc. 3107\)](#). Members of the Committee also met with those involved in the process including the DECC Minister, Officials from DECC and the Welsh Government, the NDA's Radioactive Waste Management Directorate (RWMD), Councillors and officers from Cumbria County Council, Copeland and Allerdale Borough Councils and the Nuclear Legacy Advisory Forum (NuLeAF) to gather evidence, exchange views and understand the background to their concerns and decisions.

3. CoRWM provided informal advice to DECC in the form of [comments on the GDF Siting Review \(CoRWM doc. 3133\)](#) prior to the publication of the Consultation Document and this advice was published in August 2013. CoRWM was also asked to provide comments on the Consultation Document prior to its publication.

4. CoRWM also carried out its own analysis of the "Call for Evidence" responses to understand better the views of others in formulating its response to the Consultation.

5. To formulate the response to this Consultation, CoRWM started initial discussions in the plenary meeting held on 16 and 17 September 2013 ([minutes, CoRWM doc. 3135](#)), sub-groups of Members were established to consider the individual questions and their initial analyses were further considered in meetings on 10 and 31 October 2013, and in the meeting on 8 November 2013 (CoRWM doc. 3139) which was open to the public. A final meeting to agree the CoRWM submission was held on the 28 November.

General Response

6. CoRWM has some concerns about the approach outlined in the Consultation. CoRWM believes that, in the light of the lessons learned from the decisions in West Cumbria and Shepway in Kent, any revised process should be as simple as possible, with the minimum number of decision points. CoRWM believes that any new process should be seen more as a continuum of engagement rather than as a series of distinct stages.

7. CoRWM believes that, whilst the Government's preferred option is to have a single repository for all higher activity radioactive waste, the option of having more than one Geological Disposal Facility (GDF) should not be ruled out. There are many reasons why a single repository may not be the optimum solution, such as: availability of suitable geology or rock volume in a single location; incompatibility of radioactive waste types; or the attraction of a waste-specific GDF to accommodate legacy waste and avoid unnecessary additional storage facilities.

8. CoRWM believes that, whilst the radioactive waste disposal facility is referred to as a "Geological Disposal Facility", geology should not be seen in isolation and the suitability of a site or sites for radioactive waste disposal must be determined by the robustness of the facility "Safety Case". **CoRWM would stress that this Safety Case is required to demonstrate to independent nuclear safety, nuclear security and environmental regulators, that the risks to the workers from construction and operation of the facility both at the surface and underground, and that the risks to the public, both now and in the future, can be shown to be as low as is reasonably practicable (ALARP); and that the environment is adequately protected.** The concept and role of the Safety Case should be clearly defined in any future White Paper.

9. CoRWM also believes that, in addition to the focus being put on the Safety Case, the Government should put in place a clear and robust regulatory framework to control the design, construction, commissioning, operation, decommissioning and closure of the above-ground and underground facilities. Demonstrating that this framework is in place will be essential to give the public confidence that no radioactive waste will be placed in a GDF unless it has independent regulatory approval and that there is a Safety Case that can clearly show that the facility will be safe, the radioactive waste is secure and the environment is adequately protected.

Sharing Knowledge and Building Trust During Site Selection and Beyond

10. CoRWM believes that the relationship between the implementing organisation, the potential host community and the Representative Authority is of fundamental importance to the delivery of a GDF. The development and implementation of a mechanism to ensure effective engagement of the potential host community and the Representative Authority in the siting process will be essential. This mechanism will enable the implementing organisation to share information on the progress being made in the various site selection activities that are needed to develop the Safety Case and deliver the project. It will also enable community concerns to be discussed and responded to. The successful operation of

this mechanism will be essential for trust to be built and established between all parties. It will also enable the potential host community and its Representative Authority to gain an understanding of the progressive development of the Safety Case and eventually, along with the implementing organisation, to take ownership of the Safety Case.

11. CoRWM has concerns about the proposals in the Consultation Document and believes that further consideration should be given to the concepts of a “Steering Group” and a “Consultative Partnership”. CoRWM’s concerns relate to the intended role, function and membership of these bodies as set out in the Consultation Document. The impression is that it is these bodies will be in control of (steer) the siting process (see paragraph 2.5.3). This will not be the case as it will be the implementing body that will have the responsibility to manage (and hence steer) the project as shown clearly in paragraph 2.73 of the Consultation Document.

12. Rather than creating such bodies as a “Steering Group” or “Consultative Partnership”, CoRWM believes that the use of something similar to a “Local Liaison Committee”(LLC), that is familiar to communities living in the vicinity of existing nuclear installations, could deliver the need for public engagement, consultation and information exchange i.e. incorporating the role of a “Consultative Partnership”, without giving the impression that it will be the community and not the implementing organisation that will manage the project.

13. CoRWM believes that any new White Paper should make clear that it is the implementing organisation that not only has the responsibility to manage a GDF siting process but also has the responsibility to ensure effective engagement with the potential host community and its Representative Authority. Given this, CoRWM believes that an LLC or something similar should be set up by the implementing organisation at the outset of its engagement with a potential host community. The membership and Chair of the LLC should be determined by the implementing organisation and the potential host community. CoRWM does not believe that Government should be a member of the LLC.

Detailed Response

Question 1

Do you agree that a test of public support should be taken before the representative authority loses the RoW? If so, what do you think would be the most appropriate means of testing public support and when should it take place? If you do not agree with the need for such a test, please explain why

14. **CoRWM strongly supports the principle that a test of public support should be taken before a Representative Authority loses its Right of Withdrawal (RoW) and the decision is taken by the potential host community for a GDF.** Emphasis should be given in any future White Paper to the fact that the RoW persists up to the point where the implementing organisation is in a position to submit a Development Consent Order (DCO) application, apply for a nuclear site licence under the Nuclear Installations Act, and apply for appropriate environmental permissions for the licensed site. CoRWM believes that this will give reassurance to both the Representative Authority and a potential host community or communities, of the strong commitment of Government to this important principle. After

submission of a DCO application and associated applications for a nuclear site licence and environmental permits, there would be no further RoW. After this point the control of the design, construction, commissioning, operation, decommissioning and closure of the site would fall to the independent nuclear regulators who act on behalf of society to ensure safety, security and the protection of the environment.

15. CoRWM's view of the lessons learned from the MRWS process in Cumbria, supported by its review of the submissions to the "Call for Evidence", is that there is strong support for the idea that RoW should be given legal status, to engender greater confidence that, if the local community wished to withdraw from the process, it could. At this point the siting project in their area would stop and the implementing organisation would cease its operations and withdraw.

16. CoRWM believes that the implementing organisation should not be able to make a DCO application for a GDF unless the local community has demonstrated its support for the application. This requirement should be clearly set out in the National Policy Statement (NPS) thereby providing the legal basis for the RoW, which has been requested by many interested parties. Equivalent arrangements should be put in place for applications in Wales or Northern Ireland.

17. CoRWM believes that measuring public support will be challenging in terms of what method or methods would be most effective in gaining the confidence of potential host communities and Representative Authorities. Whatever method or methods are chosen a number of issues arise.

- First there is the issue of the spatial coverage of measurement. Clearly it must cover any potential host community and the Representative Authority that will have the final say as to whether to take a RoW decision or volunteer to host a GDF. CoRWM believes that consideration should be given to how a wider geographical coverage, represented by Local Authorities, Organisations, NGOs and individuals either in neighbouring areas or in localities through which waste would have to be transported, should be consulted and the extent to which they have a right to influence the decision defined.
- A second issue is the question of weighting. When seeking support, should some form of weighting system be used? With weighting, those in a potential host community would have more influence on the final decision than those who may live many miles away on the boundary of the Representative Authority or in an urban area which would only marginally be impacted by a GDF.

18. After careful consideration CoRWM believes that it would neither be desirable nor practical to adopt a system of weighting. Furthermore CoRWM considers that the "wider community", including for example, residents of areas through which waste material would pass, should have, through an extensive consultation process, an opportunity to express their views to the Representative Authority. The Representative Authority should consider them along with the views of a potential host community, prior to making a decision as to whether or not to exercise a RoW or to agree to host a GDF. A truly consultative process

would be one where the implementing organisation, DECC, the Representative Authority and the potential host community unanimously agree the most desirable method of testing community support.

19. Various methods are available to test community support. CoRWM considers that whilst it would be possible to include in any future White Paper the method that must be utilised, further research would be desirable to explore which methods would be most appropriate and which would be most respected by all interested parties. CoRWM also consider that account should be taken of the utility and outcome of methods used to test levels of support in communities in other countries, such as Sweden.

20. In light of certain negative reactions to the use of an Opinion Poll in Cumbria, CoRWM considers that a method that enables everyone on the electoral register in the potential host community to have the opportunity to have their view counted, would be the most appropriate method to test community support. This view is subject to the proviso that test of community support would need to consider a) area of coverage and b) legitimacy of result measured in terms of percentage turnout i.e. there should be a minimum turnout for any result to be valid.

21. CoRWM recommends that the above suggestion, or other method that may be adopted, should be organised and conducted by an independent body.

22. CoRWM also recommends that the test of community support, and the point at which the RoW should cease, should be included in any process diagram that may be included in the White Paper.

23. CoRWM note that in Para 2.20 it is stated that “the community, through its representative authority....retains a RoW” whilst in Para 2.22 it is stated that “ the potential host community should retain a RoW”. Any future White Paper on a new siting process should use consistent terminology.

Question 2

Do you agree with the proposed amendments to decision making within the MRWS siting process? If not, how would you modify the proposed phased approach, or, alternatively, what different approach would you propose? Please explain your reasoning.

The Overall Process

24. **CoRWM does not fully agree with the proposed process as set out in Figure 4 of the Consultation Document.** The phased approach to decision making is understandable. However, in CoRWM's opinion, the siting process is best approached as a continuum of engagement, proceeding at a pace with which all participants feel comfortable so as to build trust, confidence and knowledge among all stakeholders along the way. In this light, the Committee is concerned that the diagram (Figure 4) used in the Consultation

Document could be misunderstood or misrepresented. In particular, the vertical arrows in the diagram could be taken to represent hard decision points. The CoRWM believes that it is essential to avoid the possibility of this interpretation by any party and CoRWM's strong preference would therefore be to modify the diagram to remove this risk. A revised diagram should illustrate a sequence of activities similar to that defined by DECC but remove anything before the demonstration of community support which could be construed as a hard decision point.

25. Figure 1 below is CoRWM's suggested alternative approach. As can be seen in Figure 1, CoRWM recommends the elimination of distinct "Learning" and "Focusing" Phases as shown in Figure 4 in the Consultation Document. CoRWM believes that Figure 4 could incorrectly give the impression that there is a major community decision to be made between the "Learning" and "Focusing" Phases. In practice, CoRWM believes that there will be a continuous process of gathering information and improving knowledge to identify potential sites for the surface and subsurface facilities using both desk-top studies, geophysical surveys and boreholes – until the DCO, licence and environmental applications.

26. CoRWM also recommends the removal of specific timelines from the process diagram so as not to give the impression that there are specific deadlines to acquire the necessary information. To develop the trust and support of the local community and that of the wider public, CoRWM believes that all must recognise that there are no fixed timescales and the time that is necessary to gather the necessary information will depend upon the local circumstances.

Approach to Engagement

27. CoRWM believes that engagement with communities at all phases of a GDF project is key to successful delivery. Government has a responsibility to set out the national policy for the safe and secure management of radioactive waste and promote the wider understanding of the need for geological disposal. CoRWM supports the proposal for Government to engage with local communities to explain the process. CoRWM believes that the implementing organisation should engage with communities and their representatives to explain the project and to seek their engagement in it to find a suitable site for a GDF in their area.

28. CoRWM supports the proposal for a series of regional meetings with Local Authorities and other interested parties, held after publication of the White Paper, which would provide a forum for DECC and the implementing organisation to explain the process. If these meetings were conducted as part of ongoing, wider interactions between DECC and others, there would be less risk of these preliminary information exchanges assuming an unjustified significance. Such a strategy would be consistent with a very soft approach to initial engagement.

29. In the version of Figure 4 included in the Consultation Document, the preliminary stage is now expected to take 12+ months whereas there were earlier suggestions that this

stage would be around 6 months in duration. The longer duration of 12+ months creates a risk that communities that may be keen to engage early will be deterred. Does the Government have plans for managing this risk? Alternatively, if the intention is to begin dialogue before the end of this stage, that intention should be made clear in any future White Paper.

30. CoRWM believes that there should be no barriers to engagement. Engagement should proceed at a pace with which the communities feel comfortable. As explained earlier, anything that represents, or can come to represent, a “hard” decision point should be avoided. In the continuous approach proposed by CoRWM, the implementing organisation would not be required to seek specific permission to proceed from a local community or its representatives during the information gathering part of the process. CoRWM proposes that there is only one “hard” decision point and this decision is taken by the potential host community and its Representative Authority when the implementing organisation believes it has sufficient information to make a Safety Case to proceed with its identified site (s). At this point the Representative Authority will be asked if it wishes to proceed with the project and host the GDF. As outlined in Question 1 CoRWM supports the requirement for public support for a decision to proceed and hence volunteer to host the GDF.

31. Early on in any engagement with a local community, as mentioned in paragraph 12, it would be helpful to set up a body similar to a Local Liaison Committee for a Nuclear Licensed Site to provide a means of communication and building trust. The mechanism for establishing and, the remit of, such a body would need to be defined.

32. In the event that first contact is not with a Local Authority (but, for example, with a landowner), CoRWM recommends that the Local Authority should be brought into discussions as soon as possible.

33. When the initial discussions between a local community and the implementing organisation have progressed to the state where the community has sufficient confidence in the project to continue the engagement and enable the necessary information to be gathered, it will be for the community to decide whether to engage or not, decide to request additional information or not, and decide, or not, whether to participate in the Local Liaison Committee for the project.

Right of Withdrawal

34. At any time during the information gathering part of the process, CoRWM recognises that the Representative Authority has the right to terminate the engagement and inform the implementing organisation that it wishes to stop the project in its area i.e. exercise the Right of Withdrawal. In the view of CoRWM, if the programme is successful in building trust and a sound Safety Case can be developed for a chosen site, there should be no need for “hard” decisions to be taken by the local community prior to the Demonstration of Community Support.

35. CoRWM believes that in the Demonstration of Community Support, a community decision not to proceed should be binding on the Representative Authority, whereas a community decision to proceed should not be binding on the Representative Authority.

Gathering and Presenting Information

36. CoRWM believes that in any communication with potentially interested communities or other stakeholders, geological information must always be presented in the context of the Safety Case for the GDF (see response to Question 4).

37. Geological data, as opposed to expert interpretations, will almost certainly be sparse at the start of the siting process and will only gradually be accumulated as the siting process proceeds so that, in the early stages, it will certainly be insufficient to support the development of a full, detailed Safety Case. CoRWM believes that these limitations need to be made very clear, and any future White Paper should explain how, as the process develops, understanding of the geological setting and its contribution to the Safety Case will improve and the associated uncertainties are likely to diminish.

Governance of the Process

38. CoRWM believes that DECC and the Devolved Administrations' roles in the process needs to be carefully considered. For example in England, it will ultimately be the DECC Secretary of State who will be responsible for taking the DCO application to Parliament. In this case there is a potential for conflict of interest. The nuclear and environmental regulators will make their own decisions regarding licensing and environmental permitting.

39. As stated above, CoRWM supports the Representative Authority's RoW at any point in the siting process until there has been a formal Demonstration of Community Support and the community has agreed to volunteer to host the GDF. This decision will be required before the implementing organisation can apply for a DCO, apply for a nuclear site licence or appropriate environmental permits. It will be for the implementing organisation to decide when it has collected sufficient information to produce the initial phase of the facility Safety Case (a Pre-Construction Safety Report or equivalent), the DCO application and the necessary environmental permit application. The timing of this decision is solely a matter for the implementing organisation. Once the DCO has been granted and the regulators grant the nuclear site licence and necessary environmental permits, increasingly large sums of public money will be spent and a continuing RoW would represent a significant programme risk and has the potential to undermine the UK's nuclear safety regulatory process. CoRWM recommends that the RoW should cease when the DCO application is submitted. The safety and security of the public and the protection of the environment beyond this point will be assured through planning controls, and the regulatory controls provided by the nuclear site licensing and environmental permit regimes.

Question 3

Do you agree with this approach to revising roles in the siting process set out in the White Paper? If not, what alternative approach would you propose and why?

40. **CoRWM is in broad agreement with the proposed approach** in revising roles in the siting process and welcomes the stated objectives of providing greater clarity on responsibilities and improving the visibility of key organisations earlier in the siting process.

UK Government

41. CoRWM considers that the primary roles of Government are to set and own the policy, to ensure that a robust and clear regulatory framework is in place and that an implementing organisation is in place to deliver a GDF. CoRWM suggests that the possible need for new legislation should be included in any new White Paper. CoRWM believes that consideration should be given to a specific GDF Act of Parliament to encompass all these matters. CoRWM believes that legislation provides certainty, which is an important requirement for increasing public confidence in the process.

NDA / RWMD

42. CoRWM agrees that there is a need for a clearly identified duty holder for the delivery of a GDF and hence supports the creation of a stand-alone implementing organisation that will become the nuclear site licensee. However, CoRWM does not consider that the implementing organisation should automatically remain as a subsidiary of, or be linked with the NDA. It is important to build trust with the public and CoRWM believes it would be desirable to separate clearly the implementing organisation from the waste producers. Other options regarding the organisational structure, role and responsibilities and accountability to Government should be considered. These options could include models such as the Olympic Delivery Authority, the Channel Tunnel, Crossrail and other public bodies.

43. CoRWM recommends that the implementing organisation is the prime advocate of the GDF at both a national and local level. If this body were to be independent of the NDA, it could readily encompass this advocacy role and leave the NDA free to concentrate on its decommissioning and waste management responsibilities.

44. CoRWM recommends that the responsibility for the disbursement of the Community Benefits Package should be firmly within the remit of the implementing organisation. CoRWM considers that any new or revised White Paper should be explicit in this matter.

Local Government

45. CoRWM is supportive of the concept of local decision-making and believes that designated decision makers should be locally based. CoRWM therefore believes that the proposal for the decision maker to be at the District Council level is understandable. However any new White Paper should include all the alternatives list the pros and cons of each option and provide a detailed explanation of why decision-making at the District level is the preferred option. Recognition of the roles of the County Council and Parish Councils

should be given. In particular, the fairly vague terms, such as 'prominent role' should be made more explicit.

Regulators

46. CoRWM supports the proposal that both the ONR and the environmental regulators should play a greater role in the siting process by engaging with communities throughout the siting process but fully acknowledges that this role has to be undertaken in a way that does not undermine the independence of the regulators. Engagement with the public would be centred on explaining the regulatory framework that will control the design, construction, commissioning, operation, decommissioning and closure of the GDF. The Regulators should also highlight their role in the siting process and beyond. CoRWM believes that the Regulators informing the public of their role will increase public confidence in the safety, security and environmental standards that they would apply to make sure that any future facility meets the required high standards for environmental protection, safety, security, waste management and radioactive waste transportation. In this respect, CoRWM feels that all public engagement activities must be carefully planned and should highlight the independence and separation of powers and responsibilities within all the governmental bodies involved.

External Stakeholder Engagement

47. CoRWM affirms that external stakeholder engagement is of critical importance in the principle of voluntarism. Indeed, the whole process of information gathering and knowledge development will require extensive consultation with as wide and diverse a range of stakeholders and members of the public as possible if it is to succeed.

48. CoRWM is therefore concerned that the section of the Consultation Document on External Stakeholder Engagement mainly focuses on the potential role of non-governmental organisations (NGOs) in the proposed new process. CoRWM considers that, in this section, far more emphasis should be given to:

- i) the importance of engagement in the process;
- ii) how DECC and the implementing organisation would plan to engage with a diverse range of stakeholders and the public;
- iii) possible mechanisms for carrying out effective engagement throughout the process; and
- iv) how DECC and the implementing organisation will take account of the views of stakeholders and the public.

49. CoRWM supports the UK Government's proposal to engage more effectively with NGOs and other groups (paragraph 2.82) and would advise that this should be done through

an extensive dialogue at both the national and local level.

50. CoRWM notes in paragraph 2.69 of the Consultation Document, that "There was no defined role for NGOs" in the MRWS White Paper. Indeed when attempts were made by the West Cumbria Managing Radioactive Waste Safely Partnership to include certain NGOs in the process, the invitation was rejected on the grounds that most National and Local NGOs were strongly opposed to a GDF and that they could mount more effective opposition by not being a member of the Partnership. However in light of past experience, and from the views of NGOs expressed in the "Call for Evidence", it is considered that the only way to explore potential engagement options is through an extensive dialogue with both National and Local NGOs to establish the degree to which they would be prepared to engage in the process. The DECC-NGO forum's Terms of Reference could be extended to accommodate engagement with NGOs.

51. Whilst it may be possible to consider a constructive dialogue with certain National NGOs, it may be far more difficult to engage with Local NGOs in potential host communities given that past experience indicates that their main aim is to oppose geological disposal.

52. CoRWM does not agree that the current GDIB, or a re-structured GDIB, would provide a suitable vehicle for engagement and consultation with NGOs and other external stakeholders. Other models of this type need to be examined. In particular, CoRWM notes the success of the Swedish model, which consists of both a national and a locally based consultative body. These bodies also receive their own funding with comprehensive budgetary rules, giving them each a degree of freedom of action.

Independent Review Body

53. With respect to the independent verification of technical statements, CoRWM proposes that its own Terms of Reference be updated to allow it to provide advice to appropriate external bodies on request. The advice given would be to provide independent verification of technical competency, and not verification of technical conclusions. If questions arose that CoRWM felt were beyond its capability, for example on highly technical topics, the Committee would refer these to person/bodies that it considered to be competent.

54. Whilst CoRWM agrees in principle with the options of the 'pool' of peer reviewers or another independent body, it is felt that the introduction of either of these could be viewed as another degree of complication and/or another layer of bureaucracy. In addition, the availability of persons with the required degree of specialised knowledge, and who would be perceived as independent, in this area is limited.

Question 4

Do you agree with this proposed approach to assessing geological suitability as part of the MRWS siting process? If not, what alternative approach would you propose and why?

55. **CoRWM does not agree with the proposed approach** and has concerns about its effectiveness in the context of delivering a publically acceptable safe and secure geological disposal facility or facilities. CoRWM's reasoning and concerns are given below.

56. CoRWM is very concerned about the level of information on geology that is proposed to be provided at the early stage "Learning Phase". As noted in its response to question 2, CoRWM does not agree that the proposed phases are helpful or necessary. At the early part of the process there will only be limited information on the nature of the geology at depth and the purpose of the work of the implementing organisation is to gather the information over time to build on this limited knowledge to a point where uncertainties are sufficiently low to enable the initial phase of the Site Specific Safety Case that is required for licensing to be produced.

57. CoRWM believes that geological information cannot be viewed in isolation from the GDF Safety Case, as it is the Safety Case that will demonstrate the suitability of a site for the disposal of radioactive waste and not the "geology" on its own. The nature, content and level of geological information presented during the siting process is very important but geology is only one of many factors that contribute to the development of a successful Safety Case.

58. CoRWM believes, in line with its response to Question 2, that the approach should be recast with the concept of the Safety Case at its heart, and any discussions or reports relating to geology (and all subsurface 'aspects' including gas and radionuclide pathways) should be in relation to the contribution it makes in this context. The idea of 'geological suitability' has to be replaced with "prospects of developing a successful Safety Case" that integrates geological, hydrogeological, hydrogeochemical and performance information.

59. CoRWM therefore believes it is necessary, at the earliest stage to explain the concept of the Safety Case, to both the public and stakeholders. In particular it is essential to communicate the geology in its broadest sense and other factors (GDF design, Engineered Barrier Systems etc), that contribute to the Safety Case.

60. CoRWM advocates that, at all times in the siting process, communications and discussions relating to sub-surface geology should highlight and explain how the geological information relates to and will contribute to the Safety Case.

61. It is important to explain that within the Safety Case, the function of the geological barrier can vary substantially. For example, in the Swedish disposal company SKB's Safety Case, which underpins the current licence application for a spent fuel repository at Forsmark, the role of the granitic geology is not to act as a barrier to migration; in fact a highly conservative assumption is taken and radionuclides entering groundwater at repository depth

are assumed to have zero travel time to the surface. At Forsmark, the role of the geological barrier is to maintain geochemical and geomechanical stability at depth; this preserves the engineered bentonite barrier, which protects the fuel canister against corrosion. By contrast, in clay rocks at Bure, the French disposal company Andra is developing a Safety Case in which the host geology forms the principal barrier to radionuclide migration. At Bure, travel times to the surface are sufficiently long that an engineered barrier is not required and it is proposed to dispose of spent fuel canisters directly within the clay host rock. These are just two examples out of many Safety Cases being developed worldwide in which the geological barrier fulfills different safety functions.

62. CoRWM accepts that within the context of the Safety Case there could be a need to provide geological information in a timely manner. However, great care must be given at all times when presenting geological information. During the engagement period with a local community and its Representative Authority, any regional geology reports that are produced by the implementing organisation should make it clear that geological maps are models based on limited data derived from observations of rocks at the ground surface and boreholes. As a consequence, maps are subject to considerable uncertainty and this uncertainty increases substantially with depth, where the observation data becomes far sparser.

63. CoRWM has concerns about the value of the proposed BGS GB3D model and believes strongly that it should not be used. Geological models and especially those at large regional scales have several serious problems affecting their use in this public process including but not limited to:

- i) the very high level of uncertainty in the models;
- ii) the inability to display this uncertainty; indeed, the 3D visualization implies complete but wholly unjustified certainty (i.e. seeing is believing); and
- iii) the risk that refinements of the model as more data become available may undermine public confidence by being seen as correction of earlier mistakes.

64. CoRWM believes that if any early information is to be provided on the 13 regions of the UK such information is presented in the form of "Regional Geological Prospect Reports". These reports should be kept simple, clear, and linked explicitly to generic Safety Case considerations. This would mean showing, via maps, the areal / depth distribution of prospective rock types linked to the appropriate Generic Safety Case. CoRWM believes that there are only 3 rock categories of relevance here:

- i) evaporites (e.g. salt),
- ii) lower strength sedimentary rocks (e.g. mudrocks); and
- iii) higher strength rocks (e.g. crystalline basement, granites).

Hence, maps should only show the areal/depth locations of units thought to contain these geological prospects. The level of uncertainty in these maps should be clearly explained.

65. Prior to presenting the maps, the three principal types of GDF concepts, based upon the current generic Safety Cases, should be introduced. For each concept the key safety factors should be explained together with a description of the likely safety function of the

geological barrier. The advantage of this approach is that geology is not then considered in terms of 'suitability' on its own, and is clearly seen in the context of the overall GDF Safety Case.

66. Once a community has entered into discussions, CoRWM believes that the implementing organisation should gather sub-surface information progressively to enable prospective sites to be identified. Doing this requires, as noted in the Consultation Document, some exercise of judgement and hence, a strategy for identifying possible sites in advance of borehole data becoming available should be produced. The material given on this judgement in the Consultation Document (3.19, 3.20, 3.21) is vague and unconvincing. The implementing organisation will need to produce a clear and robust process and show:

- I) how assessment is to be made;
- II) the criteria that will apply;
- III) who makes the judgement and in the light of what input; and
- IV) how the independent review will be carried out.

The assessment and review thereof have to be described in some detail so potential communities and the Regulators have assurance that best practice will be followed, and that the assessment process is being thought about now rather than being introduced on an ad hoc basis.

67. Once prospective sites are identified, detailed surface-based site investigation including boreholes (which will require an environmental permit and DCO permission) and geophysical exploration will commence. The exploration will take place over a period of many years and the data produced from this work will enable the development of a Site-Specific Safety Case. As site investigation progresses, the initial Generic Safety Case will gradually evolve towards the Site-Specific Safety Case (see Figure 1 below). CoRWM believes that the implementing organisation should make it clear to the local community and its Representative Authority that it will take time and careful planning to gather the information that will be necessary to enable the development of a successful Site-Specific Safety Case.

68. The implementing organisation should also make it clear that the development of a successful Site Specific Safety Case will need to be undertaken in stages. The first stage will be that needed to demonstrate that there is a reasonable prospect that the identified underground site will be suitable. Typically this initial phase of the Safety Case is referred to as the Pre-Construction Safety Report (PCSR). The PCSR will form the basis of the information needed for the implementing organisation's applications for the DCO, the nuclear site licence and the environmental permit (see Figure 1 below).

69. If the Local Community and its Representative Authority agree to proceed with the development the implementing organisation will, as described above, apply for a DCO, the nuclear site licence and the environmental permit for the underground site. If DCO permission is obtained and the nuclear site licence and environmental permit are granted, it is likely that the Regulators will initially only permission a limited amount of underground construction work. During this initial underground construction period, new geological and

hydrogeological information will continue to arise and this will be used to further develop the Site Specific Safety Case. It is also likely that the nuclear site licensing and associated environmental permitting process will contain several "hold points" on underground activities. To progress past each of these "hold points" the implementing organisation will be required to update the developing Site Specific Safety Case based upon the additional information gathered. It is therefore likely to take many years before the fully developed Site Specific Safety Case is in place to enable full site operation.

70. CoRWM believes that there is a need for greater clarity on the regulatory process that will be used to control underground construction, commissioning and operations, and on the linkage of this process to the progressive development with the Site Specific Safety Case. The Consultation Document is vague and, it appears, confused on this. Any future White Paper should address this issue and clearly explain the basis for the progressive development of the Site Specific Safety Case. Ideally the implementing organisation should produce a schedule of work showing what is to be carried out, why the work is necessary, what it would involve, what if any regulatory approval would be required and how this would be obtained, and how the information gathered would be used to support the development of the Site Specific Safety Case for the GDF.

71. CoRWM believes that, during the information gathering process to identify possible sites, a fundamental principle of the process should be to keep the option open of having more than one site. The reasons for this are that there could be:

- i) the need for different disposal concepts for different waste types (e.g. cemented ILW; vitrified HLW or possibly spent fuel);
- ii) a need for a specific sub-surface setting to host a specific type of waste;
- iii) a limitation on the volume of available rock; and
- iv) a wish to demonstrate the feasibility of geological disposal through incremental stages to build confidence, enhance understanding so that geological disposal of radioactive waste becomes the accepted norm.

Question 5

Do you agree with this clarification of the approach to planning for a GDF? If no, what alternative approach would you propose and why?

72. **CoRWM agrees with the proposal but has a number of comments.** CoRWM is supportive of the proposed approach to include the GDF within the Planning Act 2008 as being a Nationally Significant Infrastructure Project ("NSIP") for a GDF located in England. CoRWM recommends that any future White Paper should provide greater clarity on the planning process in Wales and Northern Ireland.

73. CoRWM believes that greater explanation is required for people not familiar with the NSIP process. This is because the Planning Act 2008 has only been used for a relatively small number of projects and as such local government and the public's understanding of what is involved might be limited in some areas. The respective roles of Parliament, DECC, local government and the wider public therefore should be set out clearly in a new White Paper. Likewise some information on when in the process a NPS might be published, what it

is likely to contain and what role it will have in the siting process will give greater clarity. In addition, it will be important to explain the relationship between planning and a voluntary siting process.

74. CoRWM believes that it may be beneficial to produce a “Regulatory Schedule” to show how the key planning and regulatory activities relate to the key project milestones. It is important that any future White Paper clearly shows the voluntary siting process in context and in relation to the ongoing regulatory process once a site has been found. It is also important to emphasise that, if a potential host community agrees to host a GDF and gives up its RoW, community engagement with the implementing organisation will not stop at that point. Any revised White Paper also needs to explain the role of Parliament and the public before the GDF is designated as a NSIP, the development of the NPS and again when the Planning Inspectorate are considering the DCO application.

75. The NPS will set out the need for a GDF. CoRWM believes that the NPS should also make it clear that the GDF will only be used for radioactive waste for which the UK has responsibility and that it will not be made available for use by countries for the commercial disposal of radioactive waste. The NPS should be sufficiently flexible to allow for the potential for more than one GDF to host the waste inventory if needed.

76. Any DCO application should be made for the maximum potential inventory that could be supported by the Safety Case to avoid the need for incremental applications in the future.

77. CoRWM also recommends further clarity on the following matters:

- the consenting processes for the surveys and boreholes required at different stages of the siting process;
- compulsory purchase powers for land and mineral rights;
- how the siting policy and NPS will deal with boreholes/potential future underground working that may be outside of the volunteered area and what communication/involvement the non-volunteer area will have? For example if it is discovered that a suitable volume of rock is found close to, but not in, the volunteer area?;
- how many NPSs will there be? Will there be a generic GDF NPS? Will there be a future site specific NPS also produced?; and
- that the DCO application will not include the environmental permit application.

78. Once the revised siting process has been finalised and launched, CoRWM recommends that DECC is not actively involved in the implementation of the policy. The implementing organisation should manage both the dialogue with the potential host community or communities, and the site selection process. DECC’s role is to arrange for the amendment of the Planning Act 2008 and prepare the NPS and appraisal of sustainability.

79. There needs to be a clear separation of the roles of DECC and the implementing organisation and this should be defined in any future White Paper. DECC are responsible for policy issues and the overall funding of the implementing organisation; the implementing

organisation for driving the project forward through site selection to construction and operation.

Question 6

Do you agree with this clarification of the inventory for geological disposal – and how this will be communicated with the volunteer host community? If not, what alternative approach would you suggest and why?

80. CoRWM agrees that the inventory of a GDF should be clearly defined. However CoRWM notes that the maximum allowable inventory in any individual GDF has to be determined by the Safety Case. It would therefore be prudent to keep open the possibility of multiple GDFs. CoRWM also requests that further clarification is provided regarding the categorisation of wastes including those arising from the new build programme.

81. CoRWM agrees with the Consultation Document that the ability to construct a GDF or otherwise will be determined absolutely by the duty holder's delivery of a Safety Case that meets the stringent UK safety, environmental and security standards. This process could result in the Regulators imposing a limit on the amount and / or type of waste which could be accommodated by the Safety Case.

82. In light of the above, CoRWM believes that Government should leave the option open for more than one repository. CoRWM understands Government's preferred position that a single GDF which serves the whole of the UK might be expected to be considerably less expensive than two or more GDFs. However, if developments in the Safety Case for particular volunteer areas indicated suitability for some, rather than all, of the inventory, then it would fall to Government to decide whether to proceed with a GDF with such inventory limitations.

83. Paragraph 3.58 of the Consultation Document states that *"In an effort to provide greater certainty for communities engaging in the process and focus discussions, the UK Government intends to clearly define a single Baseline Inventory for the purposes of geological disposal. The UK Government proposes that the focus should be on the waste and material types for disposal, as these are not expected to change over time"*.

84. CoRWM believes that the above wording implies greater certainty than in fact exists. For example the form of overpacking to be used for spent fuel (and in the case of AGR fuel, the form of the spent fuel itself) is currently uncertain and must remain so until any Site Specific Safety Case is finalised. Any new policy would need to acknowledge transparently the currently unknown details of the inventory.

85. CoRWM believes that the categorisation of wastes should be simple and logical. As written, paragraph 3.59 of the Consultation Document is less than clear on at least some waste categories. In particular, reprocessing ILW would be much better included with *"HLW from Sellafield reprocessing operations"*, rather than with *"ILW arising from existing nuclear licensed sites"* where it presumably sits at present.

86. CoRWM recommends that the size of the inventory from the new build programme is further clarified as an example size based on a number of assumptions, and thought should be given to providing a maximum inventory. In the Consultation Document paragraph 3.59 states that: “*Spent Fuel (oxide) and ILW from a new build programme of a specified maximum size, such as the 16GW(e) for which nuclear operators have developed proposals*”. CoRWM recognises that there are currently many unknowns surrounding the new build programme and therefore the spent fuel and ILW that it will create. Whilst CoRWM understands why the Government has given the example of new build wastes arising only from developed proposals where information on the waste types is known, 16GWe is only the ‘first tranche’ figure and substantially below the 75GWe upper limit being examined in DECC. There is a need for clarity that any data given for, for example, 16GWe, are an example rather than either an expectation or a limit. Government should therefore consider defining the maximum repository size. This issue reinforces the requirement to leave the option open for more than one repository.

87. Lastly, the illustration shown after paragraph 3.48 in the Consultation Document which has a caption “*HLW Final disposal copper canister (courtesy Posiva)*” is clearly a Spent Fuel container and not an HLW container. As the Consultation Document has made it very clear that these are two separate waste types, appropriate illustrations should have been used.

Question 7

Do you endorse the proposed approach on community benefits associated with a GDF? If not, what alternative approach would you propose and why?

88. CoRWM recommends that clarity is given to specify the scale of community benefits. Any new policy should specify when funding will start and when it will be provided at different points throughout the process. CoRWM advises that some community benefits should be made available before the RoW is withdrawn, with the sums increasing significantly thereafter. CoRWM believes that this greater clarity would give confidence that benefits are guaranteed over a timescale longer than the current three-year government funding cycles.

89. CoRWM proposes that community benefits should be proportionate to the progress made during siting, construction and operation.

90. CoRWM believes that the implementing organisation and not the Government should pay the community benefits to the local community. CoRWM believes that if the implementing organisation pays the community benefits this will avoid any perceived conflict of interest arising from the Government paying the benefits and determining the DCO application.

91. CoRWM recommends that community benefits are agreed as part of the implementing organisation’s budget.

92. CoRWM recommends that the Government is specific in defining which communities will receive benefits. The Consultation Document includes a number of different descriptions

of the recipients. For example in paragraph 4.15 the narrative implies that *“the host community”* will receive the Community Benefits and on page 15, the local community is defined as - *“the community in which any facility will be built.”* However in paragraph 4.14 the narrative states that *“participating communities and their neighboring local authorities could begin to scope projects for funding through community benefits.”*

93. CoRWM believes that local government should have a significant influence on the way that community benefits are spent within its jurisdiction.

94. CoRWM suggests that the Government sets out a framework for the allocation of benefits and in doing so, examines existing models, for example The Shetland Charitable Trust. Any trust should have standalone funds and a board of trustees who are not linked to those receiving the funds.

95. CoRWM believes that this approach will enhance community confidence that the money will be forthcoming even with a change in Government.

Question 8

Do you agree with the proposed approach to addressing potential socio-economic and environmental effects that might come from hosting a GDF? If not, what alternative approach would you propose and why?

96. CoRWM welcomes the principle of linking Strategic Environmental Assessment (SEA) and Sustainability Appraisal to a consideration of environmental and socio-economic factors and bringing them forward in the proposed process. CoRWM also welcomes the proposed approach of initially conducting generic assessments which will be followed by SEA(s) as a tool to assist in the identification of potential sites and then detailed EIAs of specific sites.

97. Research has indicated that there is a range of views as to the utility of generic assessments. These assessments can indicate in principle the potential positive and negative impacts of a proposed development and how negative impacts may be mitigated. However as they are by definition "general" in their findings they need to be treated with some degree of caution given that spatial variations between localities may not always be identified.

98. Throughout the Consultation Document, emphasis appears to be placed on the Government and the implementing organisation "providing" information. Whilst provision of information is clearly important, the information requested by the potential host community is equally so. CoRWM stresses that in good SEA, SA and EIA practice the community must be in a position to state those issues which they consider important even though they may be considered marginal or irrelevant by those conducting the assessment. Given the sensitivity of the process of attempting to identify a willing host community great care should be taken in "Scoping" the key issues. Whilst Scoping is a formal requirement in Strategic and Environmental Assessment and encourages topics of greatest concern to the community to

be identified and evaluated, the principle of Scoping could also be applied to the type of information that should be provided to give confidence to a potential host community.

99. CoRWM notes that a wide range of topics will be covered in the provision of information and the conducting of assessments at different scales and times during the proposed revised process. CoRWM welcomes this approach but, given perceived safety and risk factors associated with a GDF, considers that a Health Impact Assessment (HIA) should be conducted to give confidence that all potential health impacts have been evaluated.

100. CoRWM strongly endorses the approach set out in the Consultation Document to link sustainability and environmental studies together as far as possible given the potential for overlap between assessments. EU and UK Government advice on environmental assessment stresses that when "parallel" assessments are being conducted every effort should be made to link the studies together when obtaining data, conducting the assessments and undertaking public participation. As well as reducing the "red tape", this will also avoid public consultation 'overkill'.

Question 9

Do you have any other comments?

101. CoRWM notes that the Consultation Document focuses mainly on the underground facility but any new New White paper should include more information on the siting, design and operation of the above ground facility for any GDF.

102. CoRWM believes that any new White Paper includes an up-to-date Glossary which defines any new terms.

