



Committee on Radioactive Waste Management

PROPOSED PROGRAMME OF WORK 2016-2019

March 2016

MESSAGE FROM THE CHAIR

I am pleased to present CoRWM's proposed work programme for 2016-19 to the Secretary of State for Energy and Climate Change and Environment Ministers in Scottish and Welsh Governments and Northern Ireland Executive. I believe the Committee plays a vital role in providing Ministers with independent advice based upon evidence obtained from its scrutiny activities. The proposed work programme is cost efficient with a scope that is necessary to enable the Committee to deliver its responsibilities.

The budget for CoRWM over this period is under review and in light of the Comprehensive Spending Review, however the reduction in CoRWM's has yet to be determined. Given the importance of the work to deliver the UK and Welsh Governments' "Implementing Geological Disposal" policy in 2016, I am proposing a work programme for 2016-17 that is based on funding of £250k, which represents a 11% reduction from CoRWM's 2015/16 budget of £281k. The proposed outline programme for 2017-18 and 2018-19 are based upon a 22% reduction in funding.

The proposed programme consists of a 3-year rolling plan and as such, the greatest detail on what we propose to do is given for the first year (2016-17). The programme for 2016-17 shows that CoRWM will focus most of its time on the scrutiny of the work carried out by DECC and RWM Limited on the delivery of the work packages outlined in the July 2015 White Paper "Implementing Geological Disposal". Other priority areas are support to the Welsh Government on its radioactive waste policy, especially in relation to geological disposal; support to the Scottish Government on the implementation of its strategy for the management of radioactive waste in Scotland, especially the issues relating to near surface disposal; scrutiny of RWM's transition to becoming an effective delivery organisation and scrutiny of RWM's safety case development programme. CoRWM proposes to reduce its activities on the management of radioactive waste, nuclear materials and spent fuel, given the other priorities in 2016-17.

Priorities for the later parts of the plan are less well developed and therefore the activities are only indicative and could change depending upon future developments, however in 2017-18 CoRWM intends to focus on the implementation of the GDF siting programme, and in 2018-19 the focus will be on GDF volunteer communities and Scottish near surface disposal developments.

Progress on the delivery of the 2015-16 programme can be seen in CoRWM's Annual Report for 2015-16 which will be submitted to Ministers by 30th June 2016.

Professor Laurence G Williams FEng
Chair Committee on Radioactive Waste Management

INTRODUCTION

1. This is the fourth CoRWM work programme since the Committee was re-constituted in November 2012. It is a 3-year rolling programme with the proposed programme for 2016-17 covered in detail. The topics that could be addressed in the following two years are shown in less detail.
2. This document summarises CoRWM's remit, describes the development of the proposed programme and outlines priorities for 2016-17 with the deliverables.
3. Once the programme has been approved by Ministers CoRWM's sub-groups will prepare more detailed work-plans.

CORWM'S REMIT

4. The Committee was set up in 2003 as part of Government's Managing Radioactive Waste Safely (MRWS) programme. Its initial remit was to oversee a review of the options for the long-term management of the UK's higher activity radioactive waste (HAW) and to recommend an option (or combination of options) to Government. CoRWM reported in July 2006 (CoRWM doc. 700) and Government responded in October 2006 (Defra *et al.*, 2006), accepting most of CoRWM's recommendations. The Government then began work on the implementation of policy for geological disposal, using a voluntarism and partnership approach, preceded by robust interim storage and accompanied by the necessary research.
5. There was a public consultation in 2007 on a framework for implementing geological disposal (Defra *et al.*, 2007). The consultation was followed in June 2008 by a White Paper (Cm 7386) and an invitation to local communities to express an interest in hosting a geological disposal facility (Defra *et al.*, 2008). In 2007, the Scottish Government decided not to endorse geological disposal (Lochhead, 2007); it subsequently developed its own policy for the management of its HAW, which consists of near-surface, near-site storage and disposal (Scottish Government, 2011).
6. In October 2007, Government reappointed CoRWM under new terms 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 of the Government's and Nuclear Decommissioning Authority's proposals, plans and programmes to deliver geological disposal, together with robust interim storage, as long term management options for the UK's higher activity wastes.*
7. In November 2012, Government refreshed the membership of the committee, with a new Chair and six new members. The 2012 Committee had a chair and 12 Members, this was reduced to a Chair and 11 Members in 2014. The current membership of CoRWM is given in Annex B.

CoRWM's FUNDING

8. In 2012 CoRWM's budget was £450k, however through good planning and a more focussed approach it has been possible to progressively reduce the budget without any loss in the Committee's effectiveness such that at the beginning of 2015 the budget was £281k.

9. In 2015 the Committee underwent a triennial review to assess its continuing need. The CoRWM Triennial Review has been completed and accepted by Ministers. The review team assessed the function against the Government's "Three Tests" to determine whether it should continue to be delivered by a NDPB and concluded that it passed each test. In addition, the review team found that CoRWM appears to be operating effectively in its current form and there was nothing to suggest that there are issues that would require the current delivery model to change. The review team concluded that the continued existence of CoRWM as an advisory NDPB ensures the continuity of the scrutiny and advice function, and supports trust in an independent voice being able to scrutinise UK radioactive waste management.

10. In line with the Comprehensive Spending Review CoRWM has been asked to reduce its budget for 2016-17 and beyond however, at this point in time the exact size of the reduction is not clear. The Committee believes that it is important for the CoRWM to maintain its current size to ensure it has an adequate range of expertise to scrutinise the key activities in the next four years.

11. CoRWM believes that DECC's and RWM's activities in 2016/17 are critical to the successful delivery of the UK Government's policy "Implementing Geological Disposal" and effective scrutiny is essential to ensure that the Government receives robust independent advice. A significant reduction in CoRWM's resources at this time would seriously weaken CoRWM's ability to deliver its function in the coming year. To meet the need to make some reduction and yet maintain its ability to meet the demands the Committee is proposing a work programme for 2016/17 based upon a budget of £250k i.e. an 11% reduction in its budget. CoRWM believes this would enable it to provide the appropriate degree of scrutiny, however, no allowance has been made for CoRWM to scrutinise RWM's 2016 generic disposal system safety case (gDSSC). Any requirement to carry out an assessment would require additional funding.

12. The 2016-19 work programme reflects comments that were received from the Nuclear Decommissioning Authority (NDA), Radioactive Waste Management Limited (RWM), the Office for Nuclear Regulation (ONR), the Environment Agency (EA), Natural Resources Wales (NRW) and the Scottish Environment Protection Agency (SEPA).

ALLOCATION OF CORWM'S RESOURCES FOR 2016-17

13. The areas of work CoRWM is proposing to cover are set out below.

Area 1: *To provide advice to DECC on the Work Packages arising from the White Paper “Implementing Geological Disposal”.*

14. CoRWM will plan its work to provide timely advice to DECC in relation to the work packages identified in the White Paper:

- WP1 National geological screening;
- WP2 Working with communities;
- WP3 National land use planning - NPS;
- WP4 Developer-led communications and engagement; and
- WP5 Regulation- Providing ONR with legal vires to licence a GDF.

Area 2: *To provide advice to the Welsh Government on “Implementing Geological Disposal” in Wales.*

15. CoRWM will plan its work to provide timely advice to the Welsh Government on the management of HAW radioactive waste in Wales in general and on its activities associated with “Implementing Geological Disposal” in particular. This work will include providing advice on specific issues identified by the Welsh Government.

Area 3: *To provide advice to the Scottish Government on the Management of Radioactive Waste in Scotland.*

16. CoRWM will plan its work to provide timely advice to the Scottish Government on its implementation of its HAW radioactive waste management policy. This work will include providing advice on specific issues identified by the Scottish Government and gathering information on the NDA’s plans for Scotland.

Area 4: *To provide advice to DECC and other Sponsors on RWM’s development of the GDF Safety Case.*

17. CoRWM will plan its work to provide timely advice to DECC on RWM’s development of three rock specific safety cases. CoRWM will also look at RWM’s plans for the developing site-specific GDF designs and associated safety cases.

Area 5: *To provide advice to DECC and other Sponsors on RWM’s transition to becoming a GDF Delivery Organisation.*

18. CoRWM will plan its work to provide timely advice to DECC on RWM’s transition to a GDF delivery organisation.

Area 6: *To provide scrutiny and advice on Management of Radioactive Wastes, Spent Fuel and Nuclear materials.*

19. CoRWM will plan its work to provide timely advice to DECC, the Scottish Government and the Welsh Government on the current status of interim surface storage of HAW radioactive waste, spent fuel and nuclear materials. This work will include scrutiny of current arrangements at NDA, EDF and other nuclear sites.

Area 7: CoRWM Outreach Activities.

20. Members of CoRWM will continue to attend seminars, give presentations, make visits to relevant national and international organisations to share experiences and meet key stakeholders.

CoRWM RESOURCES

21. Table 1 shows the allocation of CoRWM's resources for 2016/17. The main assumptions are given below and the indicated changes are against the 2015/16 budget of £281k and the 2015/16 approved work programme which gave a total of **388** Member days for scrutiny and advice activities.

Budget £250k

Chair time allocation	64 days / year [reduced from 78]
Member time allocation (average)	46 days / year [reduced from 52]
Number of plenary meetings / year	5 (2 days / meeting) [reduced from 6]
Number of CoRWM visits / year	1 (2 days/ visit) [reduced from 2]
Number of International visits/ year	1 [reduced from 2]
Available days for scrutiny and advice	375 [-13]

Table 1 Resource Allocation for 2016/17 Programme

2016/17		
Activity	Allocation	Change from 15-16
To provide advice to DECC on the Work Packages arising from the White Paper "Implementing Geological Disposal"	60% 225 days	+8 days
To provide advice to the Welsh Government on "Implementing Geological Disposal"	8% 30 days	-28 days
To provide advice to the Scottish Government on the management of Higher Activity Waste in Scotland including near surface disposal	8% 30 days	-9 days
To provide advice to DECC and other Sponsors on RWM's development of the GDF Safety Case.	6.5% 25 days	+ 10 days
To provide advice to DECC and other Sponsors on RWM's transition to becoming a GDF Delivery Organisation	6.5% 25 days	+ 25 days
To provide advice on Interim Surface Storage of HAW Radioactive Wastes, Spent Fuel and Nuclear materials	3.5% 15 days	-24 days
CoRWM Outreach	6.5% 25 days	+5 days
Net Change		- 13

Table 2 Sub-group Allocation for 2016/17 Programme

Activity	days
SG1 National Geological Screening	70 days
SG2 Working with Communities	75 days
SG3 Planning and Regulation	45 days
SG4 Developer lead Communications	35 days
SG5 Welsh Government Activities	30 days
SG6 Scottish Government Activities	30 days
SG7 Safety Case Development	25 days
SG8 RWM Transition	25 days
SG9 Management of Radioactive Waste, Spent Fuel and Nuclear Materials	15 days
Outreach	25

ALLOCATION OF CORWM'S RESOURCES FOR 2017-18

22. CoRWM proposes to allocate its resources as follows:

- ***To provide advice to DECC on the GDF siting process [50%]***
 - RWM's Community engagement
 - Interested Communities activities
 - Communication and awareness
 - Regulatory framework – GDF guidance
- ***To provide advice to the Welsh Government on the management of Higher Activity Waste in Wales [10%]***
- ***To provide advice to the Scottish Government on the management of Higher Activity Waste in Scotland including near surface disposal [10%]***
- ***To provide advice on GDF design and safety case development [10%]***
- ***To provide advice on RWM transition [10%]***

- ***To scrutinize the management of Interim Surface Storage of HAW Radioactive Wastes, Spent Fuel and Nuclear materials in England and provide advice as necessary [5%]***
- ***CoRWM outreach [5%]***

ALLOCATION OF CORWM'S RESOURCES FOR 2018-19

23. CoRWM proposes to allocate its resources as follows:

- ***To provide advice to DECC on the GDF siting process [40%]***
 - RWM's Community engagement
 - Interested Community activities
 - Communication and awareness
 - Regulatory activities
- ***To provide advice to the Welsh Government on the management of Higher Activity Waste in Wales [10%]***
- ***To provide advice to the Scottish Government on the management of Higher Activity Waste in Scotland [15%]***
- ***To provide advice on GDF design and safety case development [10%]***
- ***To provide advice on RWM transition [10%]***
- ***To scrutinize the management of Interim Surface Storage of HAW Radioactive Wastes, Spent Fuel and Nuclear materials in England and provide advice as necessary [10%]***
- ***CoRWM outreach [5%]***

CoRWM's ENGAGEMENT STRATEGY

24. CoRWM will continue to engage widely to gather evidence to progress CoRWM's various work streams, and to communicate CoRWM's output to stakeholders via e-bulletins, the CoRWM website, at conferences, and via face-to-face meetings.

OUTLINE PROGRAMME FOR 2016-19

TASKS AND DELIVERABLES FOR 2016-17

25. Tables 3 provide a description of each proposed task for 2016/17, together with the output and date due, the task priority and the planned resource allocation.

26. CoRWM will produce a number of deliverables in the form of informal reports for Government. Currently, informal advice is the preferred option due to the need for timely and flexible advice. Unless circumstances do not permit, CoRWM will endeavour to publish all its reports. CoRWM will also produce an Annual Report for 2015-16 for publication in June 2016.

Table 3. Work Programme for 2016/17

Key

Source C - CoRWM, D – DECC, S – Scottish Gov, W – Welsh Gov
 SG Sub – group responsible for delivery
 P Priority, Red – high, Yellow – medium, Green - low
 AT Allocated time to task in days

Task	Source	Task Description	Task Output	Date	SG	P	AT
1		Work Packages arising from the White Paper "Implementing Geological Disposal"					225
1a	C	Provide advice to DECC on Work Package 1- National Geological Screening	Regular reports to the GDPB Contribution to Annual Report	June 2017	1		70
1b	C	Provide advice to DECC on Work Package 2 – Working with Communities	Regular reports to the GDPB Contribution to Annual Report	June 2017	2		75
1c	C	Provide advice to DECC on Work Package 3 – Developing Land Use Planning Processes	Regular reports to the GDPB Contribution to Annual Report	June 2017	3		20
1d	C	Provide advice to DECC on Work Package 4 - Developer Lead Communications and Engagement	Regular reports to the GDPB Contribution to Annual Report	June 2017	4		35
1e	C	Provide Advice to DECC on Work Package 5 – Regulation (Providing ONR with the legal vires to Licence a GDF)	Regular reports to the GDPB Contribution to Annual Report	June 2017	3		25
2		Radioactive Waste Issues in Wales					30
2a	C	To provide advice to the Welsh Government on "Implementing	Regular reports to the GDPB Contribution to	June	5		30

		Geological Disposal”	Annual Report	2017			
3		Radioactive Waste Issues in Scotland					30
3a	C	To provide advice to the Scottish Government on the management of Higher Activity Waste in Scotland including near surface disposal	Reports as and when required by SG Contribution to Annual Report	June 2017	6		15
3b	C	To provide advice on RWM’s activities relating to design and safety case for a near surface disposal facility in Scotland	Report to SG Contribution to Annual Report	April 2017 June 2017	6		10
3c	C	Monitor the management of higher activity radioactive waste in Scotland	Contribution to Annual Report	June 2017	6		5
4		RWM’s development of the GDF Safety Case.					25
4a	C	To provide advice on RWM’s approach to the development of safety cases for a GDF in the 3 rock types	Report to DECC/RWM Contribution to Annual Report	Dec 2016 June 2017	7		15
4b	C	Provide advice on RWM’s development and use of the “LoC” process in the context of waste acceptance criteria for GDF’s in the 3 rock types	Report to DECC/RWM Contribution to Annual Report	Sept 2016 June 2017	7		4
4c	C	Provide advice on RWM’s development and use of the “LoC” process in the context of waste acceptance criteria for a near surface disposal facility in Scotland	Report to SG Contribution to Annual Report	Nov 2016 June 2017	7		4
4d	C	Provide advice on the scope and value of RWM’s 2016 Generic Safety Case	Report to DECC/RWM Contribution to Annual Report	Dec 2016 June 2017	7		2
5		RWM’s plans to become an effective delivery organisation					25
5a	C+D	To provide advice to DECC and other Sponsors on the scope, focus and timeliness of RWM’s transition to becoming a GDF Delivery Organisation	Report to DECC/RWM Contribution to Annual Report	March 2017 June 2017	8		
6		Management of Radioactive Wastes,					15

		Spent Fuel and Nuclear Materials					
6a		To provide advice on Interim Surface Storage of HAW Radioactive Wastes, Spent Fuel and Nuclear materials in England, Scotland and Wales	Report to DECC/NDA Contribution to Annual Report	March 2017 June 2017	9		10
6b		Review plans for retrieval of wastes from legacy ponds and silos at Sellafield	Report to DECC/NDA Contribution to Annual Report	Sept 2016 June 2017	9		5
7		CoRWM Outreach					25
7a	C	Develop an outreach strategy and plan	Plan of CoRWM engagements	June 2016			5
7b		Provide effective engagement with the public and other stakeholders to raise the profiles of CoRWM and help inspire confidence in its work.	Attend meetings, provide lectures / presentations and articles on CoRWM	March 2017			20

TASKS AND DELIVERABLES FOR 2017-18

27. The tasks for 2017-2018 are based upon current understanding of the radioactive waste issues that are likely to require scrutiny and advice. These are naturally estimates and will be reviewed and may change in future year's work programmes. Time allocations assume CoRWM's budget is reduced by 22%.

Table 4. Outline Work Programme for 2017/18

Key

Source C - CoRWM, D – DECC, S – Scottish Gov, W – Welsh Gov
 SG Sub – group responsible for delivery
 P Priority, Red – high, Yellow – medium, Green - low
 AT Allocated time to task in days

Task	Source	Task Description	Task Output	Date	SG	P	AT
1		GDF Siting Process					50% 151
1a	C	Provide advice to DECC on RWM's engagement with communities	Regular reports to the GDPB Contribution to Annual Report	March 2018			51
1b	C	Provide advice to DECC on communities interested in engaging in discussions on geological disposal	Regular reports to the GDPB Contribution to Annual Report	March 2018			50
1c	C	Provide advice to DECC	Regular reports to				25

		on communication and awareness of radioactive waste management and geological disposal.	the GDPB Contribution to Annual Report	March 2018			
1d	C	Provide advice on regulatory involvement in the GDF siting process	Regular reports to the GDPB Contribution to Annual Report	March 2018			25
2		Radioactive Waste Issues in Wales					10% 30
2a	C	To provide advice to the Welsh Government on GDF siting issues in Wales	Regular reports to the GDPB Contribution to Annual Report	March 2018			20
2b	C	To provide advice to the Welsh Government on the Management of Higher activity Waste in Wales	Regular reports to the WG and Contribution to Annual Report	March 2018			10
3		Radioactive Waste Issues in Scotland					10% 30
3a	C	To provide advice to the Scottish Government on the management of Higher Activity Waste in Scotland including near surface disposal	Regular reports to the SG and Contribution to Annual Report	March 2018			10
3b	C	To provide advice on RWM's activities relating to design and safety case for a near surface disposal facility in Scotland	Regular report to SG and Contribution to Annual Report	March 2018			10
3c	C	Monitor the management of higher activity radioactive waste in Scotland	Reports to SG and Contribution to Annual Report	March 2018			10
4		RWM's development of the GDF Safety Case.					10% 30
4a	C	To provide advice on RWM's progress with the development and use of safety cases for a GDF in the 3 rock types	Reports to DECC/RWM and Contribution to Annual Report	March 2018			18
4b	C	Provide advice on RWM's development and use of the "LoC" process in the context of waste acceptance criteria for GDF's in the 3 rock types	Reports to DECC/RWM and Contribution to Annual Report	March 2018			6
4c	C	Provide advice on RWM's development and use of the "LoC" process in the context of waste acceptance criteria for a near surface disposal facility in Scotland	Reports to SG and Contribution to Annual Report	March 2018			6
5		RWM's plans to become an effective delivery					10% 30

		organisation					
5a	C+D	To provide advice to DECC and other Sponsors on RWM's transition to becoming a GDF Delivery Organisation	Reports to DECC/RWM and Contribution to Annual Report	March 2018			30
6		Interim Surface Storage of HAW Radioactive Wastes, Spent Fuel and Nuclear materials					5% 15
6a	C	To provide advice on Interim Surface Storage of HAW Radioactive Wastes, Spent Fuel and Nuclear materials in England, Scotland and Wales	Reports to DECC/NDA and Contribution to Annual Report	March 2018			10
6b	C	Review plans for retrieval of wastes from legacy ponds and silos at Sellafield	Reports to DECC/NDA and Contribution to Annual Report	Sept 2016 June 2017			5
7		CoRWM Outreach					5% 15
7a	C	Develop an outreach engagement plan	Plan of CoRWM engagements	June 2017			3
7b		Provide effective engagement with the public and other stakeholders to raise the profiles of CoRWM and help inspire confidence in its work.	Attend meetings, provide lectures / presentations and articles on CoRWM	March 2018			12

TASKS AND DELIVERABLES FOR 2018-19

28. The tasks for 2017-2018 are based upon current understanding of the radioactive waste issues that are likely to require scrutiny and advice. These are naturally estimates and will be reviewed and may change in future year's work programmes. Time allocations assume CoRWM's budget is reduced by 22% i.e. same as the 2016/17 baseline budget.

Table 5. Outline Work Programme for 2018-19

Key

Source C - CoRWM, D – DECC, S – Scottish Gov, W – Welsh Gov
 SG Sub – group responsible for delivery
 P Priority, Red – high, Yellow – medium, Green - low
 AT Allocated time to task in days

Task	Source	Task Description	Task Output	Date	SG	P	AT
1		GDF Siting Process					40% 121
1a	C	Provide advice to DECC on the effectiveness of RWM's engagement with communities	Regular reports to the GDPB Contribution to Annual Report	March 2019		Red	41
1b	C	To scrutinise the identification of volunteer communities and provide advice to DECC	Regular reports to the GDPB Contribution to Annual Report	March 2019		Red	40
1c	C	Provide advice to DECC on communication and awareness of radioactive waste management and geological disposal.	Regular reports to the GDPB Contribution to Annual Report	March 2019		Yellow	20
1d	C	Provide advice on regulatory involvement in the GDF siting process	Regular reports to the GDPB Contribution to Annual Report	March 2019		Yellow	20
2		Radioactive Waste Issues in Wales					10% 30
2a	C	To provide advice to the Welsh Government on GDF siting issues in Wales	Regular reports to the GDPB Contribution to Annual Report	March 2019		Red	20
2b	C	To provide advice to the Welsh Government on the Management of Higher activity Waste in Wales	Regular reports to the WG and Contribution to Annual Report	March 2019		Yellow	10
3		Radioactive Waste Issues in Scotland					15% 45
3a	C	To provide advice to the Scottish Government on the management of Higher Activity Waste in Scotland including near surface disposal	Regular reports to the SG and Contribution to Annual Report	March 2019		Yellow	10

3b	C	To provide advice on RWM's activities relating to design and safety case for a near surface disposal facility in Scotland	Regular report to SG and Contribution to Annual Report	March 2019			25
3c	C	Monitor the management of higher activity radioactive waste in Scotland	Reports to SG and Contribution to Annual Report	March 2019			10
4		RWM's development of the GDF Safety Case.					10% 30
4a	C	To provide advice on RWM's progress with the development and use of safety cases for a GDF in the 3 rock types	Reports to DECC/RWM and Contribution to Annual Report	March 2019			10
4b	C	Provide advice on RWM's development of the safety case for a near surface disposal facility in Scotland	Reports to SG and Contribution to Annual Report	March 2019			20
5		RWM's plans to become an effective delivery organisation					10% 30
5a	C+D	To provide advice to DECC and other Sponsors on RWM's development as a GDF Delivery Organisation	Reports to DECC/RWM and Contribution to Annual Report	March 2019			30
6		Interim Surface Storage of HAW Radioactive Wastes, Spent Fuel and Nuclear materials					10% 30
6a	C	To provide advice on Interim Surface Storage of HAW Radioactive Wastes, Spent Fuel and Nuclear materials in England, Scotland and Wales	Reports to DECC/NDA and Contribution to Annual Report	March 2019			30
7		CoRWM Outreach					15
7a	C	Develop an outreach engagement plan	Plan of CoRWM engagements	June 2018			3
7b		Provide effective engagement with the public and other stakeholders to raise the profiles of CoRWM and help inspire confidence in its work.	Attend meetings, provide lectures / presentations and articles on CoRWM	March 2019			12

ANNEX A CoRWM MEMBERS

Laurence Williams FEng (Chair) - is an Emeritus Professor of Nuclear Safety and Regulation. He is a Senior Research Fellow at Imperial College London; a Visiting Professor at King's College London; Visiting Senior Fellow at the National Nuclear Laboratory; Chair of the Defence Nuclear Safety Committee; Member of the Nuclear Innovation and Research Board; Member of the High Scientific Council of the European Nuclear Society; Chair of the Nuclear Institute's Editorial Committee for Nuclear Future; Member of the European Bank for Reconstruction and Development's International Advisory Group on Chernobyl. Prior to entering academia Laurence was the Chief Engineer and Director for Nuclear Safety, Security and Environment at the Nuclear Decommissioning Authority; Her Majesty's Chief Inspector of Nuclear Installations; Director for Nuclear Safety and a member of the Board of the Health and Safety Executive; 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.

Current term of office ends: **31 October 2016**

Francis Livens – has held a radiochemistry position at the University of Manchester since 1991. He worked for over 25 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 Director of the University's Dalton Nuclear Institute and Director of the EPSRC-funded, Next Generation Nuclear Doctoral Training Centre. He has acted as an advisor to the nuclear industry both in the UK and overseas.

Current term of office ends: **31 May 2016**

Gregg Butler is 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 to 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**

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 May 2016**

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**

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. In 2002 was awarded the Imperial Polar Medal in recognition of his contributions to Antarctic Earth Science, and in 2014 the Schlumberger Medal of the Mineralogical Society in recognition of his contributions to mineralogy and petrology related to the deep continental crust.

Current term of office ends: **31 May 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**

Helen Peters 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. She is a member of the WNA Licensing and Permitting Task Force and a corporate member of the Nuclear Industries Association. She is also an active member of the UK Environmental Law Association. Helen has been engaged in many of the leading nuclear transactions in the UK in recent years and advises owners, operators, contractors and public bodies on environmental and nuclear regulatory matters.

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 May 2016**

Lynda Warren Lynda Warren is Emeritus Professor of Environmental Law at Aberystwyth University and Honorary Professor at Bangor University. She was a member of the Board of Natural Resources Wales and 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.

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**

ANNEX B SUB-GROUP MEMBERSHIP

Sub-group membership will be reviewed when the Committee is reconstituted following the recruitment of new Members in June 2016.

SG 1: National Geological Screening

Simon Harley (Lead)

Paul Davis
Gregg Butler
Francis Livens

SG 2: Working with the Community

John Rennilson (Lead)

Brian Clark
Lynda Warren
Janet Wilson

SG 3: Planning and Regulation

Lynda Warren (Lead)

Helen Peters
Janet Wilson
Gregg Butler
John Rennilson
Brian Clark

SG 4: Developer Lead Communications & Engagement

Brian Clark (Lead)

John Rennilson
Gregg Butler
Janet Wilson

SG 5 Welsh Policy Review

Lynda Warren (Lead)

Helen Peters
Gregg Butler
Francis Livens

SG 6: Scottish Policy Implementation

John Rennilson (Lead)

Simon Harley
Brian Clark
Stephen Newson

SG 7: Safety Case Development

Paul Davis (Lead)

Janet Wilson
Gregg Butler
Simon Harley

SG 8: RWM Transition

Stephen Newson (Lead)

Janet Wilson
Paul Davis
Simon Harley

SG 9: Management of Radioactive Waste, Spent Fuel and Nuclear Materials

Gregg Butler (Lead)

Francis Livens

Janet Wilson

Helen Peters

Lynda Warren