



Annual Review 2019-20

Doing
The
Right
Thing

Corporate Information

The RWM Board

Professor Malcolm Morley OBE	- Chairman
Karen Wheeler CBE	- Chief Executive Officer
Andrew van der Lem	- NDA Nominated Non-Executive Director
Claes Thegerström	- Independent Non-Executive Director
Professor Michael Bowman	- Independent Non-Executive Director
Dr David Prout CB	- Independent Non-Executive Director
Corhyn Parr	- NDA Nominated Non-Executive Director
Peter Lock	- Health, Safety, Security, Environment and Quality Director
John Corderoy	- GDF Programme Director

Executive Team

Karen Wheeler CBE	- Chief Executive Officer
Peter Lock	- Health, Safety, Security, Environment and Quality Director
John Corderoy	- Geological Disposal Facility Programme Director
Peter Welch	- Business Services Director
Shaun Roberts	- Waste Management Director
Mohammed Sammur	- Technical Director
Steve Reece	- Acting Geological Disposal Facility Siting and Engagement Director
Guy Esnouf	- Director of Communications and Stakeholder Relations
Andy Wong	- Transformation Director

Head of Legal and Company Secretary

Matthew Shaw

Auditor

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Covid-19 Impact Assessment

Right now, we are in the grip of the Covid-19 pandemic and its inevitable impact on the country and the world.

Although we can't yet predict how long this will continue, I'm pleased to say that, so far, our organisation and all of our staff have adapted and coped extremely well with the very challenging situation, and have had a near seamless transition to working from home. I have been impressed by our team's resilience, approach to problem solving and significant care for each other and those around us: colleagues in the Nuclear Decommissioning Authority (NDA) community and our local communities.

However, the pandemic will affect our plans and delivery in this coming year, and perhaps for longer, as the full impact unfolds. While our current focus is on the health and wellbeing of our people, business continuity, and compliance with all government and NDA Group guidance, we are also assessing the potential impact on our programme of work, and wider plans. We will reflect the latest plans in updated versions of our published Business Plan Annex.

While the future looks uncertain, our mission remains clear and is still critically important for the very long term. I remain confident that we stand in a strong position to continue to take this mission forward for the country.

Karen Wheeler CBE

Chief Executive Officer
Radioactive Waste Management



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Statement from our Chair

Introduction

Radioactive Waste Management (RWM) is a subsidiary of the NDA with responsibility for delivering one of the most important and challenging environmental infrastructure programmes in the UK – a Geological Disposal Facility (GDF) for higher-activity radioactive waste. It is also responsible for providing expert advice and guidance on radioactive waste management solutions. Its contribution to the UK will have a positive impact for generations to come.

RWM's approach, in line with government policy for England and Wales and NDA objectives, is to work with communities to explore how a GDF could make a long-term positive contribution to the fulfilment of their vision for their community. To this end RWM has produced a suite of publications about a GDF, how potential sites would be evaluated and how it will engage with communities. RWM has used these documents to guide how it has engaged with communities and this report provides details of the progress that it has made.

Progress

The GDF siting process was launched with the publication of the government's policy in England during December 2018 (Wales January 2019) and the National Policy Statement (NPS) was designated in October 2019. The government also approved the next stage of the GDF Programme Business Plan; an important milestone.

During 2019-20 RWM entered into informal confidential discussions with a number of individuals and organisations across the country, to provide information and to explore whether a GDF may be consistent with the vision for their communities. These discussions can only proceed at the pace of the interested parties and RWM has continued to provide information and to work with the interested parties to answer their questions and to provide geological and other information.

The next stage is to move to Working Groups and a public declaration of interest in exploring the siting of a GDF without any commitment from that community. Developing relationships with communities based upon trust is a process that RWM recognises takes time and cannot be rushed.

“Developing relationships with communities based upon trust is a process that RWM recognises takes time and cannot be rushed.”



RWM has also continued to support the NDA and radioactive waste producers, to proactively manage the UK's higher-activity radioactive waste inventory. This is part of the NDA's integrated waste management approach and determines how best to retrieve, condition and package wastes now so that they are suitable for safe and secure disposal later, delivering permanent long-term safety as well as substantial savings for the UK taxpayer.

Developing the organisation

Delivering one of the UK's most important and challenging environmental infrastructure programmes demands that RWM continues to evolve organisationally. Science, technology and safety are of paramount importance for RWM as is community engagement and being a high performing delivery organisation. This has been a key focus for the Board and the Executive Team during the year.

It is vital that RWM has the right skills and competencies to develop enduring relationships with communities and its diverse external stakeholders and to work effectively with its supply chain on the preparation, design and construction of a GDF. As the GDF has moved from policy development to delivery so too has RWM.

During the year, Bruce McKirdy announced his intention to retire as RWM's Managing Director. On behalf of the Board, I would like to thank Bruce for his dedication, commitment and leadership in taking RWM through the first phases of its development. Bruce was instrumental in ensuring that the business was in a good position to launch the GDF siting process.

In February 2020 Karen Wheeler CBE was appointed as RWM Chief Executive Officer to replace Bruce. Karen has previously served on the Board of RWM as an Independent Non-Executive Director and has a wide range of Board level experience in both the public and private sectors.

In December 2019 Ann McCall, Siting and Engagement Director, resigned from the Board and the Executive Team of RWM. Again on behalf of the Board, I would like to express our appreciation for the significant contribution that she made in preparing RWM for the next phase of its evolution.

“Science, technology and safety are of paramount importance for RWM as is community engagement and being a high-performing delivery organisation.”

In January 2020 an Interim Transformation Director was appointed to support the evolution of RWM. This role involves looking at how RWM currently works and how its culture, processes, systems and governance, as well the organisational capabilities, will develop further to deliver its mission. Further appointments to the Executive Team will be made during 2020-21 and an Independent Non-Executive Director will be appointed to the Board.

Whilst working in partnership with communities to explore potentially suitable sites for a GDF, RWM will continue to develop and to underpin designs for the geological disposal system for host rocks found in the UK. This will include working closely with independent regulators to progress the development of safety, environmental and security cases to cover the retrieval and transport of waste to a GDF, operation of the facility, and the safety of the facility after its

closure. It also involves working with the Committee on Radioactive Waste Management (CoRWM) and other expert bodies to ensure that our organisation benefits from their views and advice. RWM very much welcomes these positive contributions and the confidence that

communities can have in the independent external assessments of any RWM proposals. The position of the government, NDA and RWM is clear; if an option is not safe and secure it will not be progressed.

Going Forwards

Many people and organisations play important roles in supporting RWM to deliver its mission. This requires teamwork and the willingness and ability to understand the national, regional and local contexts, communities and what concerns them, and ensuring that RWM continues to evolve. I would like to thank colleagues in the NDA for their continuing support for RWM and to thank all of those who have worked so positively with RWM in the last year. I'd particularly like to thank my colleagues on the RWM Board and the Executive Team who consistently illustrate through their contribution, their commitment to the realisation of RWM's vitally important mission. I am confident that RWM will continue to evolve to enable it to deliver its important mission.

Covid-19 has created many impacts and challenges and RWM will not be immune from them. It will, however, do all that it can to positively respond to those challenges to deliver as much as it can in progressing the delivery of a GDF and the provision of waste management solutions.



Professor Malcolm Morley OBE
Chair, Radioactive Waste Management



“Many people and organisations play important roles in supporting RWM to deliver its mission.”

“ I identified a number of actions I wanted to complete before leaving:

- Finalise and publish the approach to site evaluation following the public consultation we carried out during 2018-19.
- Support government in finalising the National Policy Statement for Geological Disposal Infrastructure.
- Obtain approval from government for the business cases needed to progress the programme.
- Start the work that is at the heart of what we do: engaging with communities.

”

Managing Director’s 2019-20 Review

An overview from our outgoing Managing Director, Bruce McKirdy

During the past year, we have focused on working with communities towards our vision of providing a safer future that protects people and the environment.

Establishing a GDF deep underground, to deal with the UK’s higher-activity waste, is the responsible thing to do for today’s society and for future generations. It is also the first community consent-based process for a project of this size and scale. This is a hugely significant multi-generational project, with the operational stage expected to last for one hundred years or more. It is also a process that requires a willing, informed and supportive community.

On behalf of the NDA and government, we are tasked to deliver a GDF in the UK, and I am proud to have led our organisation through the first steps to progress this mission for a safer, more secure future.

It cannot be emphasised often enough: there is a pressing need to address our nuclear past, and we believe we are the generation who should take responsibility for this legacy.

We are well placed to deliver to stakeholders and communities

At the beginning of this year, I announced my intention to retire at the end of March 2020. As our organisation prepared to enter a new phase in the GDF programme, the time was

right for that change and I agreed a plan with our Board to hand over to my successor. I identified a number of actions I wanted to complete before leaving:

- Finalise and publish the approach to site evaluation following the public consultation we carried out during 2018-19.
- Support government in finalising the National Policy Statement for Geological Disposal Infrastructure.
- Obtain approval from government for the business cases needed to progress the programme.
- Start the work that is at the heart of what we do: engaging with communities.

“It cannot be emphasised often enough: there is a pressing need to address our nuclear past, and we believe we are the generation who should take responsibility for this legacy.”

As an organisation, we have worked incredibly hard during the past year to ensure all of the above has been successfully achieved. Inevitably, progress on some community engagement and site evaluation activities has been affected by the political landscape of the past year, and the more recent and unprecedented circumstances of COVID-19.

The beginning of the financial year saw local elections and in December we had a General Election. Both of these events require a 'quiet' period which effectively pauses our engagement activity. They also result in changes to political leaders which in turn means building new relationships. However, it is a positive indication of government's commitment to our programme that, even with those elections and the priority given to Brexit, we have achieved as much as we have.

More broadly, we have continued working with colleagues across the NDA group on developing radioactive waste management solutions. This will be a growth area for our organisation as we work collaboratively with the NDA on a new Integrated Waste Management (IWM) programme to optimise how it manages waste throughout the entire waste lifecycle across the UK.

It has been both a pleasure and privilege to lead RWM since our formation in 2014. I would like to thank all our employees and key stakeholders in supporting me in that role. I believe we are well placed to face new challenges and I have absolute confidence that my successor, Karen Wheeler, is the right person to lead the organisation forward.

Bruce McKirdy
Managing Director,
Radioactive Waste Management



About Us

Acting now to protect the future

Nuclear technology has been a part of our lives in Britain for over 60 years. It provides almost a fifth of the UK's electricity, and is used in industry, medicine and defence. These activities have created a legacy of radioactive waste which we need to manage safely for today and many thousands of years.

Most of that waste is classified as low-level in terms of radioactivity and is already disposed of safely. The more hazardous, higher activity waste needs particularly careful management. Some of this waste is currently held safely in facilities at secure sites above ground. It's safe, but it needs to be constantly managed and protected carefully. It is not a long-term solution because it would require ongoing maintenance for many thousands of years.

Why act now? It is the right thing to do to implement a long-term solution for future generations, by removing the burden of having to constantly maintain surface storage. Geological disposal is the internationally agreed approach for permanent and safe disposal of our higher-activity radioactive waste.

A GDF comprises a network of highly-engineered underground vaults and tunnels built to permanently dispose of higher-activity radioactive waste so that no harmful and unpermitted levels of radiation ever reach the surface environment. It uses multiple barriers of human engineering and stable rock hundreds of metres underground, working together to provide safety over long timescales.

As part of the Nuclear Decommissioning Authority group, our mission is to deliver a GDF for the UK. We will deliver this mission through working in partnership with communities and stakeholders.

Safety, security and the protection of people and the environment underpin everything we do.

The UK government's policy on dealing with higher-activity radioactive waste for the long term follows recommendations from the Independent Committee on Radioactive Waste Management (CoRWM). The policy is to dispose of it safely and securely in a GDF, where the geology will provide a safe location, and where the local community is willing to host such a facility. A GDF will only be built where the local community has demonstrated its consent.

It will take decades to plan, design, construct and operate the facility before it is finally sealed and closed. We will only be able to deliver this nationally important environmental project by working closely with communities, building trust and collaboration for the long term, ensuring the work on the GDF supports their community interests as well as the national interests, and above all ensuring the GDF is completely safe and secure.

“A GDF will only be built where the local community has demonstrated its consent.”

RWM brings together a breadth of specialists, skills and expertise



Our role

Our role is to deliver a GDF on behalf of the country. It is one of the most significant long-term environmental protection projects the UK has ever seen, and it is on the government's portfolio of major projects.

We are a wholly owned subsidiary of the NDA. The NDA is responsible, under the Energy Act 2004, for the clean-up of the UK's publicly owned, civil nuclear sites - including management of higher-activity radioactive waste.

We were formed in April 2014 for the purpose of delivering a GDF and providing solutions for the management of higher-activity radioactive waste. We are held to account by the NDA through a quarterly performance review process.

Our work also supports UK government objectives set out in its Industrial Strategy to boost the national economy, increase scientific, engineering and technological skills, and support regional economic growth. A GDF will help achieve the aims of the Nuclear Sector Deal, which include working closely with the rest of the NDA and supply chain to innovate and reduce the costs of decommissioning.

Our team of around 200 people brings together specialists in nuclear science, technology and engineering, safety, security, programme management, and community engagement. We will grow significantly in the next few years, as we work closely with supply chain partners in the nuclear industry, engineering and construction sectors to deliver this major project.



Safe
We are committed to achieving the highest standards of safety, security and environmental protection.



Professional
We are experts in the field, acting with integrity and efficiency to deliver the best solutions.



Engaging
We are open and communicate in a straightforward way that enhances understanding and encourages engagement and builds trusting relationships.



Learning
We continuously learn from others, and build and share our knowledge.



“In order to ensure we are measured against the delivery of our key activities, NDA as shareholder, approved our operating plan which set out key deliverables and targets.”

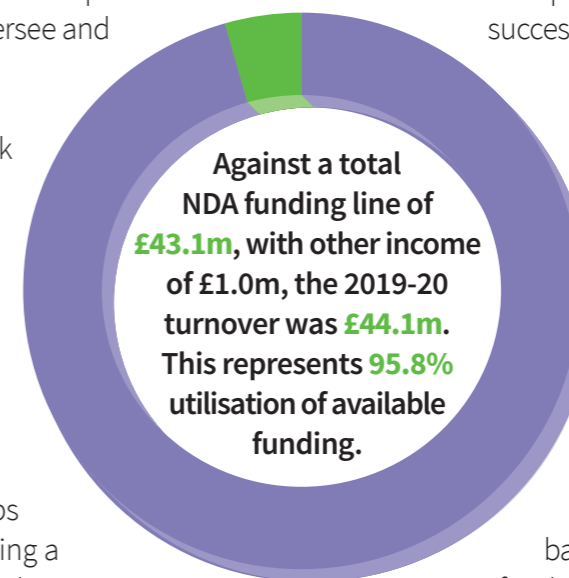
Our Governance

Business Model

We operate as a fully funded subsidiary of the NDA, which is itself government funded. As the developer of a GDF, we need to establish a supply chain for the delivery of technology and infrastructure services that will be required to deliver the facility. We will retain in-house key strategic competencies and capacity to commission services, provide specialist waste expertise, and oversee and manage delivery.

milestone in relation to formation of Working Groups not met. The need to raise awareness, engage widely and move at the pace of individual interested parties is recognised as critical in delivery of a GDF that can ultimately carry the necessary public support. Early focus has been on increasing awareness and building support. Individual discussions will be allowed to take the time required to support formation of successful Working Groups.

A key new role is to work with communities who may be interested in hosting a GDF. We will work in partnership with communities, using a consent-based process, to create Working Groups and Community Partnerships with the goal of identifying a suitable site and undertaking a successful Test of Public Support.



A summary of all of our corporate targets is provided in the next section: ‘Introduction - 2019-20 Key activities’.

Financial Performance

Our organisation operates a project governance system. This is based on the distribution of funding that NDA makes available, through accountable executive directors, to approved projects. Monthly and quarterly reviews of project performance and the latest best estimate (LBE) forecasts for the end of year outcome are used to control the financial position. Our portfolio of projects is adjusted throughout the year to ensure the optimum use of the financial resources provided by NDA.

Corporate Targets

In order to ensure we are measured against the delivery of our key activities, NDA as shareholder, approved our Operating Plan which set out key deliverables and targets. At year end, nine of the ten targets had been fully completed and confirmed by an NDA Audit team.

Delivery of one corporate target: ‘Implementation of Community Engagement and Site Evaluations’ was missed, with a

For full financial information, please see our Annual Report and Financial Statements 2019-20 on Companies House [HERE](#).

Strategic Report Introduction

2019-20 Key activities

We are leading the safe, secure, long-term management of the most hazardous radioactive waste in the UK.

Over the past year we have made significant progress in delivering solutions across four activities that shape what we do:



1 Implement government policy on geological disposal of higher-activity waste

We have been tasked by government and NDA to work with a willing community to develop a GDF for the long-term management of higher-activity radioactive waste. Our mission is to provide a safe and secure disposal capability for the UK.



2 Work proactively with waste producers to plan for and deliver waste management solutions

We provide solutions for our parent organisation, the NDA, Site Licence Companies, and waste producers in the management of radioactive waste. We aim to help them retrieve, condition, and package wastes now, in ways that are suitable for safe and secure disposal later.



3 Deliver a robust technical programme to support the GDF programme and waste management

Our Technical Programme provides design and safety case data, which supports the safe and secure management of radioactive waste today, and informs the GDF programme as potential sites are identified in the future.



4 Develop RWM into a high-performing delivery organisation

We are developing as a high-performing organisation and are building additional capabilities, whilst importantly retaining core technical competencies.

“In collaboration with a wide range of stakeholders, we are collectively taking responsibility and dealing with the UK's higher-activity radioactive waste, rather than leaving the problem for future generations.”

Here is a summary of how we have performed against our corporate targets which are based on these four key activities:

Corporate Targets	Status
1. Lead RWM’s Health, Safety, Security, Environment and Quality development to support delivery programmes.	Complete
2. Implementation of Community Engagement and Site Evaluations.	Incomplete
3. Develop the capability for Site Characterisation, Development Consent Order and Environmental Permit work.	Complete
4. Develop the technical directorate's capability to support key siting initiatives and site evaluations.	Complete
5. Deliver an integrated Design and Safety Case roadmap which identifies key decision points and develop required capabilities to support Siting, Waste Management, HSSEQ and Programme Delivery.	Complete
6. Work with waste producers on the development of waste package solutions that are compatible with the requirements of a GDF (and have approved records) and provide leadership of the waste package records requirements.	Complete
7. Deliver the RWM Higher Activity Waste programme in support of the NDA Strategic Theme of Integrated Waste Management.	Complete
8. Secure and embed the Programme, Portfolio and Project management capability (P3M) and long-term resources for Programme delivery.	Complete
9. Delivery of the culture and organisational development of RWM as it prepares for Tranche 3 – Site Characterisation (multi-year).	Complete
10. Deliver critical business enablers for RWM, including office accommodation and improvements in enablers such as e-procurement capability.	Complete

The next part of this report looks in more detail at progress in 2019-20 in the key areas.



Strategic Report Implementing GDF Policy

We have taken significant steps forward over the last 12 months. The National Policy statement for Geological Disposal Infrastructure was finalised, and we have been able to step up our work to find a suitable site and willing community, by publishing our approach for evaluating potential sites for a GDF.

We are now in discussions with a number of individuals and organisations interested in learning more about hosting a GDF and the opportunities for their community.

In parallel, we have been working on the underpinning planning and preparation for the next phases of a GDF, such as business cases and plans.

National Policy Statement

Following legislation in March 2015 that saw a GDF defined as a Nationally Significant Infrastructure Project, UK government developed and consulted on a National Policy Statement (NPS) for Geological Disposal

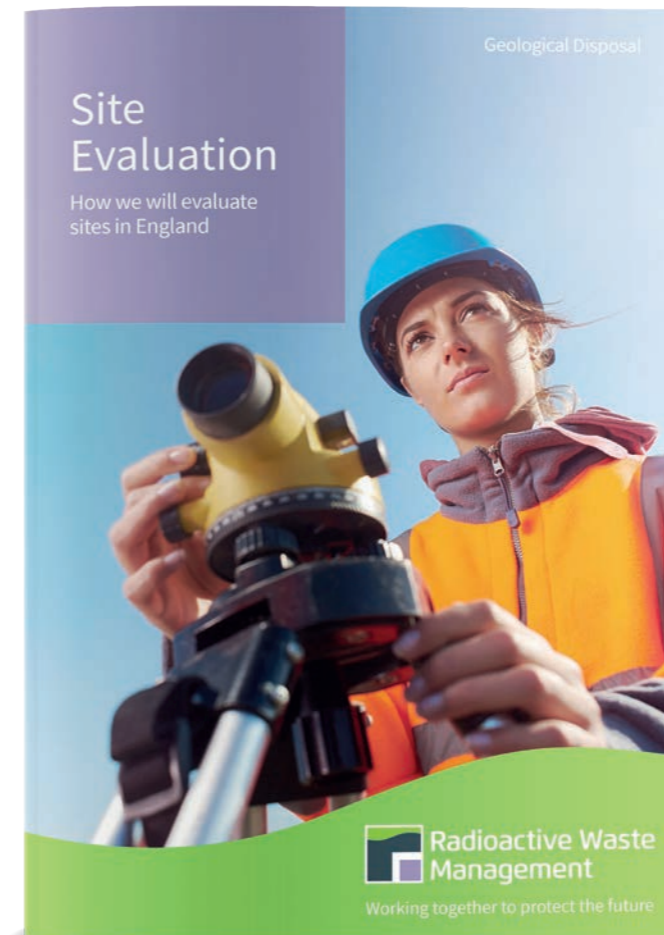
Infrastructure. RWM provided evidence to the Department for Business, Energy and Industrial Strategy (BEIS) Select Committee, which was considering the draft NPS.

The final NPS was laid in Parliament in July 2019 and designated in October 2019. The NPS will be used as the primary basis for the Planning Inspectorate and the Secretary of State to examine and make decisions on any future development consent applications for GDF infrastructure in England.

Community engagement and site evaluation

Our approach is to find a suitable site and a community that is willing to host a GDF. Hosting a GDF will bring many benefits for the host community - its construction and operation will create substantial numbers of skilled jobs and training opportunities for decades, as well as other significant investment opportunities aligned to the community's own, long-term growth vision.

Following a public consultation which ended in April 2019, we published our final approach to evaluating potential GDF sites and how we will establish whether a site is suitable. It will be based on the following factors:



materials, for decades. We need to ensure transport infrastructure is available or can be upgraded.

- **Value for money** – a GDF is an essential, but long-term and high-cost investment project. It is our job to ensure that the costs for each potential location represent value for money.

During 2019, we started talking with people and communities across the country to help them find out more about the opportunities this long-term investment programme could offer, so they can decide whether their community might be interested.

The next step is for those interested parties to take their discussions into the public domain with a more formal process as a Working Group.

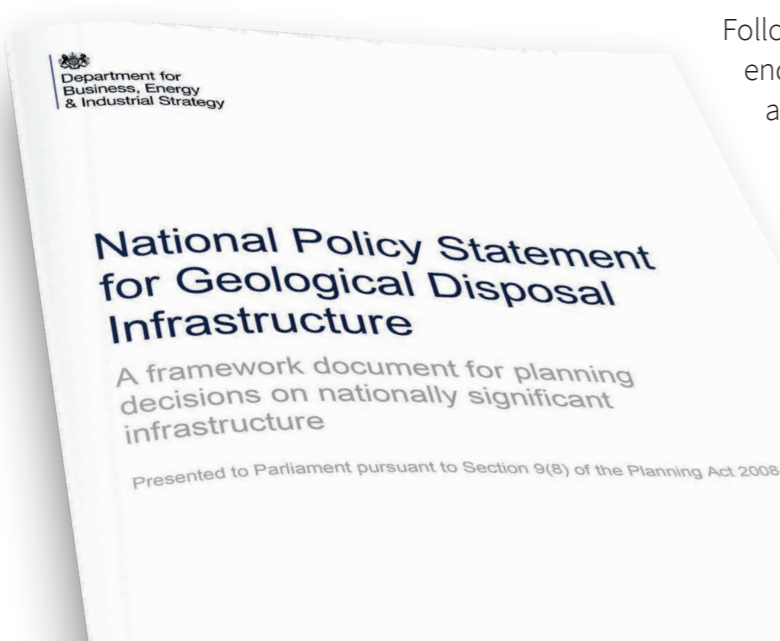
Planning delivery of a GDF

Over the past year, we have also worked to ensure that the long-term plans for the GDF programme are well established.

An overall programme business case has been developed and approved by HM Treasury which ensures that the GDF programme, which is on the Infrastructure and Projects Authority's (IPA) Government's Major Projects Portfolio (GMPP), has the remit and funding needed to proceed.

We also obtained approval for business cases covering the siting project and community investment funding, which will be required as soon as local communities enter into a siting partnership with us.

- **Safety and security** – safety and security must be assured and endorsed by independent regulators. A GDF will not be built unless we and our regulators are satisfied it is safe.
- **Community** – communities are at the heart of the process to site a GDF. Throughout, we will be considering the social and economic opportunities, community wellbeing, and how a GDF can align with the local community's vision for the future.
- **Environment** – a GDF is a major environmental protection project. Its construction will need to meet stringent environmental protection requirements.
- **Engineering feasibility** – a GDF will need to be designed around the specific geology and any local constraints, and we must be able to construct and operate the facility in a way that is safe and sustainable.
- **Transport** – constructing and operating a GDF will require safe and secure transport of waste, people and other



Strategic Report

Waste Management

In parallel with our key mission to deliver geological disposal, we are also working proactively with waste producers, planning for and delivering waste management solutions.

This work is carried out with and for the waste producers, including Sellafield and Magnox, other NDA locations, and the UK nuclear estate more generally. It forms part of an integrated waste management programme to support higher-activity waste (HAW) inventory management. Our work ensures that safe, proportionate and cost-effective solutions are applied to store and dispose of existing HAW, which are compatible with final disposal in a GDF.

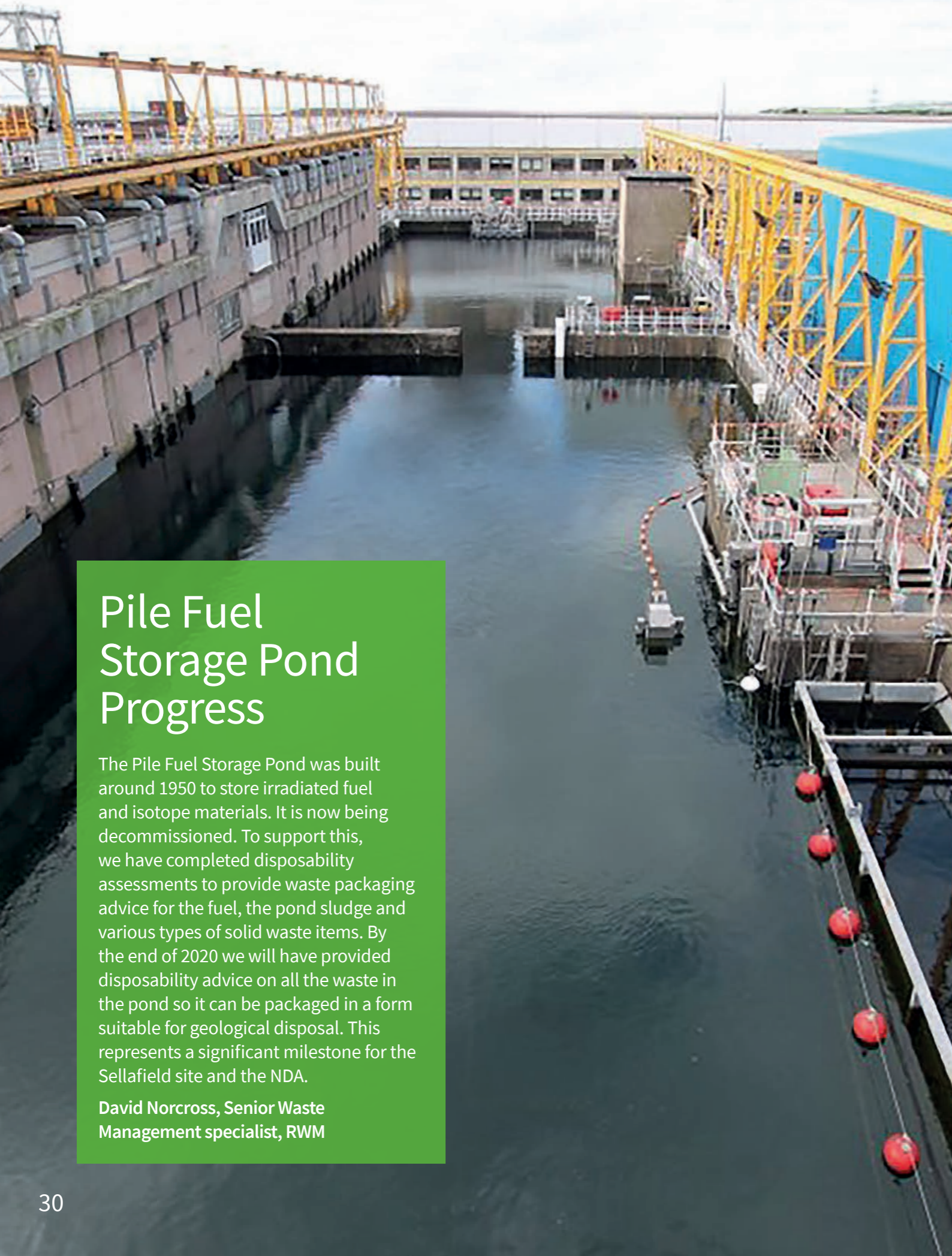
“Our work ensures that safe, proportionate and cost-effective solutions are applied to store and dispose of existing higher-activity waste.”

Highlights in 2019-20 include:

- Completion of the first records assessments for Sellafield and Dounreay. The management of HAW being generated today from generation through to disposal is a long-term undertaking. It is vitally important that the right information about the waste is captured, retained, and that it will be accessible to future users to support disposal of the waste to a GDF. Our organisation works with waste producers to determine the information that needs to be retained and supports the NDA estate through independently assessing waste package records generated by Site Licence Companies.
- Completing the first assessments for Sellafield and Dounreay legacy waste is an important part of this multi-year programme and our assessments provide confidence that the right information about the waste has been captured in a form that can be used to support disposal in the future.
- Support for the development of a new concrete waste container by Magnox, which is vital to ongoing waste retrieval at Magnox sites. The nuclear industry continues to innovate and seek improvements to the way radioactive waste is treated, conditioned, and packaged for disposal. Magnox is pursuing the development of a new design of waste container to support its ongoing decommissioning activities.

The Dounreay Nuclear Power Site, located on Scotland's north coast.





Pile Fuel Storage Pond Progress

The Pile Fuel Storage Pond was built around 1950 to store irradiated fuel and isotope materials. It is now being decommissioned. To support this, we have completed disposability assessments to provide waste packaging advice for the fuel, the pond sludge and various types of solid waste items. By the end of 2020 we will have provided disposability advice on all the waste in the pond so it can be packaged in a form suitable for geological disposal. This represents a significant milestone for the Sellafield site and the NDA.

David Norcross, Senior Waste Management specialist, RWM



This year, more than 95% of our 30 assessments were delivered early or to the agreed date.

- We have worked together with Magnox on staged assessments of a new container design to ensure its suitability for eventual disposal in a GDF. The Magnox concrete box is an evolution of an existing design which contains a number of novel features and has been proposed for use with a much wider range of decommissioning wastes.
- Enabling a major NDA milestone to be met and the management of historic wastes at the Atomic Weapons Establishment (AWE) sites to progress.
- We worked with our customers to provide confidence that proposals to package AWE waste in one of the waste treatment facilities at Sellafield will deliver packages that meet the requirements for geological disposal.
- Providing advice on the disposal of spent nuclear fuels that enabled NDA and Sellafield Limited to establish priorities for the reprocessing of fuels through the Thermal Oxide Reprocessing Plant (THORP) and Magnox Reprocessing Plant.
- RWM helped customers make the best use of these unique UK asset as they approach the end of their operational life, and establish a strategy for long-term fuel storage.

We also led a programme of disposability assessment and waste package records approval processes, to ensure that waste packages will be manufactured in a way that minimises the risk of significant additional work or packaging before disposal. This year, more than 95% of our 30 assessments were delivered early or to the agreed date.

In 2020-21 we will be working to establish the IWM programme, working with NDA, Low Level Waste Repository, and a wide range of stakeholders.

Strategic Report Technical Programme

As part of our technical programme, we carry out ground-breaking research and work closely with UK academia. We also work in close collaboration with sister organisations in Sweden, Finland, and Canada to support a GDF programme and waste management delivery. This approach ensures that our work is robust, evidence-based, and guided by best-practice, with lessons learned from the past.

This year, we have continued to develop and underpin designs for a geological disposal system for host rocks found in the UK. As part of this work, safety, environmental and security cases have been developed. This covers the transport of waste to a GDF, the operation of the facility, and safety after its closure.

“This year, we have continued to develop and underpin designs for a geological disposal system for host rocks found in the UK.”

Workers carrying out a survey of the Harwell HW3 borehole in preparation for a sealing demonstration next year.



We established the Research Support Office alongside

13 Universities.

These designs and safety cases enable us to work closely with the producers of radioactive waste to assess the suitability of their waste packages for disposal in a GDF, as we look to ensure that radioactive materials packaged today will not need to be repackaged in the future. They are also used to assess the suitability of potential GDF sites.

All the designs and safety cases have been subject to regulatory scrutiny and we have now developed plans to address recommendations from regulators.

In 2019-20, we also led a number of projects which are helping to guide our work for the future:

- We worked alongside 13 universities and established the Research Support Office, which reinforces our relationships with academia and leveraging this key UK capability in support of the overall GDF programme.
- We completed a large-scale laboratory programme to demonstrate the effectiveness of our borehole sealing technology using a 20m long vertical perspex simulated borehole. We successfully demonstrated its capability to regulators and have started our site demonstration programme with a survey of the Harwell HW3 borehole in preparation for a sealing demonstration next year. This work is crucial to our future permissioning of prospective site borehole drilling as we will need to demonstrate that we can seal the boreholes after use.

- We also published findings of a technology transfer study with Waste Isolation Pilot Plant (WIPP) New Mexico, USA the world’s first operational GDF. This included lessons learned and applicable knowledge and technology that could support the UK’s GDF programme.

Our plans are now in place for the next phase of technical work required for the geological disposal programme. This will include securing permissions for boreholes to inform the characterisation of potential sites for a GDF.

Developing an effective delivery organisation

We have been tasked by government to deliver one of the most important and challenging infrastructure programmes in the UK. So it is vital that we develop into an effective delivery organisation.

We are working on a transformation programme which will build additional capabilities and expertise, whilst retaining core technical competencies. During 2019-20, we have progressed organisational development in three key areas:

- **Ways of working** – we have assessed the processes, systems and governance needed to deliver our mission, and outlined the new organisational structures and operating models to deliver current and future phases of our mission.
- **Capabilities** – we have scoped the new capabilities we need. Our top priorities are the capabilities to develop enduring relationships with communities and external stakeholders; commercial capability to procure and manage our supply chain to work on the preparation, design and construction of a GDF; programme management capability for managing a major complex and long-term programme; further technical and research expertise for design, engineering and construction of a GDF.

- **Culture** – we have diagnosed which aspects of our leadership and culture we need to address, and have developed a change plan, which is already being implemented.

In January 2020 we appointed a Transformation Director to work with all parts of our organisation and take forward the organisational transformation and development programme.

In 2019, we participated in the NDA group-wide equality, diversity, and inclusion survey. Our results showed improvement in nearly all areas, with mental health and wellbeing leading the way. We are also increasingly challenging the status quo and finding innovative ways of working – and there is more we can do through our work culture to keep improving.

“In 2019, we participated in the NDA group-wide equality, diversity, and inclusion survey. Our results showed improvement in nearly all areas, with mental health and wellbeing leading the way.”

RWM's Senior Diversity Champion

Dr Sam King, RWM's Head of Requirements and Programme, has won Equality and Inclusion Senior Champion of the Year at the 2019 Employers Network for Equality & Inclusion (ENEI) Awards.

Sam, who was credited for her key role in driving our organisation forward, said: “I am passionate about helping to create environments which enable everyone to realise their potential and I am thrilled that my personal role has been recognised with this award”.

ENEI is the UK's leading employer network, covering all aspects of equality and inclusion in the workplace.



Our People

We have a hugely important job to do. To do this effectively we have increased our headcount by 18% (30 people) during 2019-20. We are now closer to having the necessary resources in place to deliver our key activities, and we are working effectively towards having the capability in place for future phases of our mission.

We have assessed which organisational capabilities are needed for each phase of the GDF programme and have mapped these into a formal organisational development programme. This will continue to be a major part of our work programme over the next few years.

Safety and environmental protection

Safety is an overriding value, which reflects our commitment to achieving the highest standards of safety, security and environmental protection. We do this by:

- developing our safety culture to meet future challenges as the programme evolves
- preparing the organisation for future phases of the siting process and becoming a Site Licence Company
- running an extensive Research & Development programme to underpin the scientific basis of our safety case for a GDF.

We are committed to taking necessary actions to ensure our employees feel fully supported so they can give their best to their roles. During the year, we achieved a Silver Award as an Investors in People (IIP) employer following reaccreditation in February 2020, which is valid for three years. The assessor commended our achievement of the Silver Award in the context of a challenging period of growth and complexity.

The IIP report also reflected that a series of employee-led initiatives have seen significant improvements to equality, diversity and inclusion (ED&I) and mental health support, with positive engagement across the business with ED&I initiatives. Again this year, linked to our Culture Change programme, we established an ED&I objective for all employees to complete, as we have done the previous two years. The 2019 NDA group-wide ED&I survey mirrored the IIP assessment and reflected continued improvements, but outputs of note include:

- RWM mental health first aiders team increased to 19 trained staff with awareness training completed for >80% of line managers and clinical supervision in place for mental health first aiders.

“During the year, we achieved a Silver Award as an Investors in People (IIP) employer following reaccreditation in February 2020.”



We have increased headcount by 18% during 2019-20.



Communication with all employees continues through our intranet pages, in-house newsletters and updates, staff briefings and workshops.

Our gender pay gap data for 2019 shows that women’s mean hourly rate was 18.3% lower than the men’s rate. The total gender diversity of our staff is 68% male and 32% female with the quartile data reported as below:

- EDI induction sessions mandated for all new starters and during 2019-20 more than 95% of staff completed the mandatory bullying and harassment awareness online learning package.
- RWM recruitment principles reviewed with Prospect Trade Union during 2019-20 to raise transparency of management approaches to acting roles, internal secondments and development opportunities.
- RWM gender balance network established during FY 2019-20 with future focus on work on gender pay gap actions.
- Executive approval of RWM innovation process developed and launched during 2019-20.

Quartile Bands	% Male	% Female
Upper	79%	21%
Upper Mid	71%	29%
Lower Mid	68%	32%
Lower	47%	53%

There has already been a significant amount of work to begin to address the gender pay gap. We work with our Prospect Trade Union colleagues to regularly review equal pay and as part of the 2018 RWM pay award, agreed in early 2019, we targeted additional awards to support this aim. However, the data clearly shows that we have more work to do.

In consultation with our colleagues and Propsect, we will continue to focus on this during 2020-21, as part of our wider annual pay negotiations.

Consultation with employees and their representatives occurs at all levels. We aim to ensure that their views are taken into account when decisions are made that are likely to affect their interests, and that all employees are aware of the financial and economic performance of our organisation.

“ Consultation with employees and their representatives occurs at all levels. We aim to ensure that their views are taken into account when decisions are made that are likely to affect their interests.”

“*We have a very clear mission: to find an appropriate site, with a community which is keen to realise the benefits the project can potentially offer over the long term, and to deliver a Geological Disposal Facility.*”

Introduction to Karen Wheeler, our new CEO

I am proud to have taken on the leadership of RWM and delivery of a GDF for the UK. It's a truly important and challenging project which I am confident that the impressive and committed team at RWM will be able to deliver.

We have a very clear mission: to find an appropriate site, with a community which is keen to realise the benefits the project can potentially offer over the long term, and to deliver a GDF. We can only do this by working in close collaboration with communities, local authorities, and stakeholders inside and outside government, including BEIS and NDA.

Over the past year, we have opened up discussions with many organisations and communities which have expressed an interest in the GDF programme, and progressed some of these to trusted conversations which are making meaningful progress towards an ongoing working relationship. These are important foundations which we hope will sustain for many years. They need to be, and are being, built on trust and credibility. The RWM team is bringing in-depth GDF expertise, as well as strong engagement capability and personal commitment to these critical relationships.

In addition to the critical work of finding a site by working with communities, we are also continuing to work on the planning and technical preparations for designing and developing a GDF. It is critical that we have all the capability, permissions, funding, and readiness to proceed with design and construction, wherever it is decided to locate a GDF, and at the time that decision is made.

We are currently a small organisation of around 200 people, and we should be proud of the substantive progress we have made over the last year. But we are still in the foothills of the changes which need to be made to be ready for GDF delivery; the organisation will need to grow in size, confidence and delivery capability year on year. I have been very impressed by the depth and breadth of our scientific and technical expertise in nuclear waste and geological disposal, as well as the commitment and passion for this mission. Our organisation is also really well supported by the NDA group which provides access to a wider pool of leadership, expertise, and capabilities. So I have every confidence we will succeed in our goal.

Karen Wheeler CBE
Chief Executive Officer
Radioactive Waste Management



Strategic Report – Forward Look

Karen Wheeler, CEO

Forward Look

Throughout the last year our focus has been on raising awareness of our mission and work, engaging with people about geological disposal, and starting to drive forward the siting process. We have also been working on the foundations of scoping and planning the work we need to do, the people and capabilities we need, and building the programme for delivery.

During the next five years, we will work in partnership with communities under the more formal processes set out in the policy to evaluate a number of potential sites for a GDF. These evaluations will include design studies for specific sites, initial safety analyses, and environmental and economic impact assessments to help establish whether sites could be suitable.

We will never lose sight of this project being community consent-driven and we will continue to work closely with each community to provide information, address their questions, and help develop a vision and investment plan. Within this five year period, the plan is to work alongside willing communities and ultimately recommend two sites for further investigation.

The next phase will involve characterisation of the subsurface that will involve a range of activities such as borehole investigations, in order to gather data on the geological properties of two sites. So we will also be preparing the ground: supply chain development, safety cases and permissions to enable and support the next stage of investigation.

In parallel, progress will be made on the designs and planning for a GDF. So that by the time the characterisation phase starts, we will have developed a good understanding of the potential design and delivery programme that will be needed, depending on the location and site.

A significant development within NDA is the introduction of an IWM programme. We will have a key role in supporting that programme and providing optimum waste management solutions for the UK.

Our people

Our people are central to our strategy and I am constantly impressed by the commitment and dedication of our employees right across our organisation. We must continue to attract and retain the best people if we are to deliver our mission.

We recognise that, during the coming year, we must achieve a step change in our capability to propel the GDF programme forward. We will build upon our strong culture to drive delivery with greater pace, and importantly we will continue to build a strong safety, security and environmental culture in all we do.

We are committed to providing a supportive and inclusive work environment in which all our people can realise their potential and bring their whole selves to the workplace. As we develop and grow as an organisation, our values of Safe, Professional, Engaging and Learning will continue to shape how we do business.

We are entering an exciting and challenging phase in establishing a GDF to dispose of the most hazardous radioactive waste on behalf of the nation. My Executive Team and I are committed to our mission and to working collaboratively with stakeholders in order to deliver.

For more information on our plans as we move forward, please refer to our Business Plan Annex 2020-23 [HERE](#).

Priorities for the development of our organisation

The more we can structure our work into waves on programme delivery, the more we will give others confidence that we are hitting key milestones.

Safety capabilities - safety and security must inform everything we do. The safety of the community and the environment will remain at the very heart of our organisation.

Commercial capabilities - as we look ahead to site characterisation, and design and construction work – our supply chain will be fundamental and we will need to ensure our suppliers are doing everything as efficiently and cost-effectively as possible.

Cultural capabilities – we will continue to work collaboratively with stakeholders, to build trust and a sense of confidence in us.

We will never lose sight of this project being community consent-driven and we will continue to work closely with each community to provide information, address their questions.



Getting in touch

To learn more about the UK's mission to deal with higher-activity radioactive waste

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Telephone **03000 660 100**

Follow us on Twitter [@rwm_gdf_uk](https://twitter.com/rwm_gdf_uk)

or visit www.gov.uk/rwm