



Annual Performance Plan 2019/2020





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FOREWORD BY THE CHAIRPERSON OF THE NATIONAL RADIOACTIVE WASTE DISPOSAL INSTITUTE

It is my pleasure to present the 2019/20 Annual Performance Plan (APP) of the National Waste Disposal Institute (NRWDI). The APP was developed by management, under the leadership of the NRWDI Board. The APP was prepared in terms of the National Treasury's Framework for Strategic Plans and Annual Performance Plans and in terms of Section 30 of the Treasury Regulations.

The 2019/20 APP is an ambitious programme of work for NRWDI. The commitments made are cognisant of the challenging times we face and are born out of a collective understanding of the responsibilities and obligations placed on all of us in public service by the Constitution and the aspirations of the people of South Africa.

NRWDI remains totally committed to fulfilling the expectations of South Africans that radioactive waste can be safely managed in a manner that meets or exceeds all applicable regulatory standards and requirements for protecting the health, safety and security of our people and the environment, both now and in the future.

The management of radioactive waste disposal on a national basis is an institutional ministerial obligation assigned to NRWDI, which is an independent entity established by statute under the provision of Section 55(2) of the Nuclear Energy Act (No. 46 of 1999). The National Radioactive Waste Disposal Institute Act (NRWDIA) (No. 53 of 2008) endorsed the establishment of NRWDI, which is classified as a Schedule 3A public entity in terms of the Public Finance Management Act (PFMA) (No. 1 of 1999) as amended.

The NRWDI has made great strides since its operationalisation two years ago and has in this short period of time obtained a clean audit for the 2017/18 financial year, which bears testimony to the fact that an institutionalised culture of accountability and responsibility prevail in NRWDI, thus demonstrating a resilient commitment towards good governance, prudent financial management and excellence.

Key focus areas for the year will be the following:

- a) Finalising of Section 30 of the NRWDIA Act (No. 53 of 2008) in respect of the Vaalputs Nuclear Installation Licence (NIL) and Vaalputs functional shift;
- b) Developing and maintaining a responsive radioactive waste management and disposal regime that does not compromise public safety and national security;

- c) Ensuring that public perceptions, concerns and expectations are adequately addressed and that public education, participation and communication activities in respect of radioactive waste management and disposal issues are placed at the centre-stage; and
- d) Focus on Research and Development (R&D) as well as management and disposal technologies for all classes of radioactive waste.

A Bill to establish the Radioactive Waste Management Fund (RWMF) for the collection of levies and imposition of penalties on waste generators is currently being drafted. Once the Bill has passed the legislative approval process, the Institute will be able to source funds from the RWMF for the establishment of waste disposal and related infrastructure for the long-term and sustainable management of all classes of radioactive waste.

The actual extent and complexity of the core tasks and the challenges that lie ahead for the Institute and the country will gradually unfold as the organisation dedicatedly works its way forward. It is important to visualise and understand the depth and complexity of the tasks in the context of what has been experienced and achieved by the world's advanced nations such as France, Finland, Sweden, and others in radioactive waste research, management and disposal over a long period of time. South Africa must continue its long journey towards the safe management and disposal of all of its radioactive wastes, including Intermediate Level Waste (ILW) and High Level Waste (HLW), while continuing its operations with Low Level Waste (LLW) at the Vaalputs site in the Northern Cape.

The Institute, although cognisant of the complex challenges as outlined above, is however confident that it will persevere in the journey to lay a solid foundation for the delivery of suitable strategies and solutions for the management and disposal of all South Africa's radioactive waste. This will be done in a manner that will continue to ensure the protection of the public and the environment, thus making the Institute's contribution to the safe utilisation of nuclear energy in our country.

The APP of NRWDI for the period 2019/20 is informed by the approved NRWDI Strategic Plan (2017/18–2019/20). It reflects government's long-term plans as outlined in the Medium-Term Strategic Framework (MTSF). The Plan indicates NRWDI's contribution to service delivery through the link to government's 14 outcomes, as well as NRWDI's contribution to the National Development Plan (NDP),

the Department of Energy's Strategic Plan and its Annual Performance Plan for 2019/20.

Performance targets have been set against each strategic objective as outlined in the Strategic Plan. Adequate resourcing of the organisation as well as the quarterly performance reviews will ensure the assessment of the overall performance of each programme against this APP.

The Board fully endorses this APP and commits to supporting its implementation. I would like to take this opportunity to acknowledge the important work that the Board Members, NRWDI's management team and staff are executing and would like to encourage a collective and innovative spirit in implementing the legislative mandate of NRWDI and future strategic programmes.

Mr Tshepo Mofokeng

Chairperson: NRWDI Board

OFFICIAL SIGN-OFF

It is hereby certified that this Annual Performance Plan:

- Was developed by the management of NRWDI under the guidance of the Accounting Authority.
- Was prepared in line with the approved 2017/18– 2019/20 Strategic Plan of NRWDI.
- Accurately reflects the performance targets, which NRWDI will endeavour to achieve given the resources made available in the budget for the 2019/20 financial year.

Mrs Deshnee Govender

Manager: Strategic Planning

Mr Justin Daniel

Chief Financial Officer

Mr Alan Carolissen

Acting Chief Executive Officer

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NRWDI conducted its annual planning session on 25 October 2018, which was attended by key stakeholders such as the Board Members, representatives from the Department of Energy (DoE), South African Nuclear Energy Corporation (Necsa), National Nuclear Regulator (NNR) and Eskom as well as the EXCO and MANCO members. The planning processes involved the review of the current and past performances, the mandate, current strengths and weaknesses as well as opportunities and threats. This exercise culminated in the identification of the key drivers and enablers needed to improve the performance in the 2019/20 financial year and beyond.

1. UPDATED SITUATIONAL ANALYSIS

This Annual Performance Plan (APP), which covers the period 01 April 2019 to 31 March 2020 has been developed based on the Strategic Plan for 2017/18–2019/20, which was approved by the Executive Authority on 25 June 2017. There were no changes to the mandate of NRWDI in this planning period and the Strategic Plan for the period remains relevant except that two of the three strategic objectives relating to Programme 3 (Radwaste Technology and Siting) namely the Central Interim Storage Facility (CISF) siting plan and the CISF conceptual design were removed from the Strategic Plan due to funding constraints. This amendment was done through an annexure in the approved NRWDI Annual Report 2017/18.

The APP sets out NRWDI's intent in the upcoming 2019/20 financial year and it clearly outlines performance indicators and targets to assist the Institute in realising its goals and objectives. It includes a breakdown of quarterly targets and indicators for the period 01 April 2019 to 31 March 2020. The APP also includes the allocation and spending plans for the MTEF period and will also clearly articulate the risks associated in terms of delivery as per the targets and objectives.

Concerted efforts have been made to ensure that all performance indicators and targets in this plan are presented in a specific, measurable, achievable, relevant

and time-bound (SMART) format, hence enabling the Institute to effectively monitor and evaluate progress and to timeously take corrective actions when necessary. Monitoring and reporting of achievements made against this plan will be undertaken through quarterly performance reviews as per Section 4.4. of the Framework for Strategic Plans and Annual Performance Plans and Chapters 5 and 30 of the Treasury Regulations, which will ultimately be audited through a performance audit by the Auditor-General of South Africa.

As a public entity that has been operational since October 2016, it goes without saying that there will be developmental and institutional challenges as it works its way towards achieving maturity, stability and operational excellence.

Owing to the unique nature of the situation that faces the Institute, namely, its establishment as a new Schedule 3A public entity, with a newly appointed executive management and administrative staff, and limited infrastructural resources to support its activities, the Institute's various short- and medium- term policy initiatives and priorities include the implementation of unique intervention strategies and actions that are necessary to address the situation.

These interventions must also enable the Institute to deliver on its mandate and allow it to implement its functions and exercise its powers as provided for in the NRWDIA.

1.1 PERFORMANCE DELIVERY ENVIRONMENT

The performance environment of NRWDI is impacted by both external and internal perspectives. In this regard, NRWDI conducted a PESTEL analysis and SWOT analysis to scan the environment in which it operates. Both serve as effective strategic planning tools to ensure that the environment that NRWDI is operating in has been taken into consideration as it is likely to impact on the performance and success of the Institute.

1.1.1 PESTEL ANALYSIS

Nuclear energy is part of the energy mix that has been adopted and supported by the South African Government. Nuclear energy use is increasing around the as the greenhouse gas emissions emitted from nuclear plants are far less than those at coal and other hydrocarbon fired power stations.

Economic

South Africa's predicted GDP is approximately 1.5% for 2019/20. The GDP of the country is one of the main macroeconomic indicators used to measure the performance of a country's economy. With the

main macroeconomic indicators used to measure the performance of a country's economy. With the predicted GDP being so low, it means that unemployment is on the increase and there is less money to spend. Levels of investor confidence are also low. South Africa has competing social, education, infrastructure and health budget priorities. NRWDI currently has financial challenges with regards to the establishment of waste disposal and related infrastructure for the long-term management, including disposal of radioactive waste.

Social	There is a negative perception of nuclear energy due to the perceived risk associated with nuclear energy and radioactive waste. Compelling and comprehensive programmes must be put in place to communicate the safe and secure storage and disposal of radioactive waste to the public. Social media can be used as an effective tool for communication with stakeholders (Facebook, Twitter, Snapchat) to demystify and debunk the perceived risk associated with radioactive waste.
Technological	Disposal facilities for very low level and LLW are already in operation in several countries. The most important remaining challenge is the development of disposal facilities for HLW and spent nuclear fuel. Significant progress is being made in a few countries, such as Finland, where the construction of a disposal site for spent nuclear fuel is currently under way making Finland the first country to have this technology. Programmes are, however, progressing slowly in many other countries. Mature technologies exist for the off-site dry storage (up to 100 years) for spent nuclear fuel.
Environmental	There is a growing global environmental agenda. The public is becoming more and more aware of the environment as they would like to preserve the environment for future generations. NRWDI will play a key role in protecting the environment for current and future generations.
Legal	There are legal challenges from anti-nuclear groups. There are various regulatory requirements set out by the Regulatory bodies. The RWMF Bill needs to follow the parliamentary process to be enacted to provide sustainable funding for the long-term management and disposal all classes of radioactive waste.

1.1.2 SWOT ANALYSIS

The SWOT analysis plays a significant part in the Institute's planning as it focuses on the internal and external factors, which have an impact on the Institute. The application of the analysis to the Institute provides NRWDI with the opportunity to improve operations, discover opportunities and put mitigation strategies in place to address risks, ensuring that the key deliverables are met as per the Strategic Plan and the Annual Performance Plan and that operational excellence is achieved.

STRENGTHS

- NRWDI's mandate is legislated and unambiguous;
- There is a core of suitably qualified and experienced staff:
- NRWDI has technical expertise in radioactive waste disposal:
- A world class LLW disposal facility, Vaalputs, which has been in operation for more than 30 years; and
- The Board and management are committed to open, transparent and accountable management of NRWDI.

OPPORTUNITIES

- Meaningful contribution to SA's socio-economic transformation, NDP and MTSF imperatives;
- To become a centre of excellence in radioactive waste management and disposal;
- Rendering advisory services to AU/SADC countries with regard to radioactive waste management and disposal; and
- Building strong co-operative partnerships with the IAEA and global waste management organisations to enhance and complement NRWDI's competencies.

WEAKNESSES

- · A lack of brand identity and image;
- Organisational stakeholder communication needs improvement;
- · Inability to discharge mandate due to underfunding;
- Internal processes and systems not completely in place;
- Change management process for the Vaalputs functional shift needs to be strengthened; and
- Organisational design and structure needs to be reviewed to ensure alignment and optimisation.

THREATS

- Negative public perception and sentiment regarding nuclear energy and radioactive waste;
- Delays in finalisation of the Radioactive Waste Management Fund Bill will compromise the sustainability and mandate of Institute;
- Global nuclear events and accidents increasingly influence government policy and regulations of the nuclear industry;
- Delays in obtaining the Vaalputs Nuclear Installation License and concluding the Vaalputs functional shift;
 and
- Lack of critical mass of skilled and suitably qualified individuals in the nuclear energy sector.

1.1.3 KEY ACTIVITIES

The following key activities will be undertaken by NRWDI in the 2019/20 financial year:

- The transfer of the Vaalputs business unit as a going concern. The transfer is informed by Section 30(1)

 (a) of the NRWDIA that states that all assets, rights, liabilities, obligations, licenses and authorisations of the South African Nuclear Energy Corporation regarding the Vaalputs National Radioactive Waste Disposal Facility vest in the NRWDI with effect from 1 December 2009.
- Application for and obtaining of the Nuclear Installation License (NIL) to operate Vaalputs.
- Operationalisation of Radioactive Waste Inventory System (RAWIS), with records of the Vaalputs-disposed radioactive waste from Eskom and Necsa mapped and imported into the system.

- Finalisation of preparatory work required to obtain Ministerial approval to establish an off-site (away from reactor site) above ground dry storage facility for the storage of spent fuel.
- Research and Development (R&D) activities to find disposal solutions for Koeberg's non-operational radioactive waste such as the Original Steam Generators and Reactor Pressure Vessel Head.

1.1.4 STAKEHOLDER COMMUNICATIONS AND ENGAGEMENT

The NRWDI's primary aim of communicating with its stakeholders is to share and gather information with the aim of addressing problems, determining strategy and influencing the allocation of resources. During the 2019/20 financial year, NRWDI intends to improve on its stakeholder engagement processes and objectives to ensure that these engagements are mutually beneficial and that mechanisms are in place to ensure the accountability of all parties. Stakeholder engagement forms the basis for good corporate governance and is critical to the successful operations of NRWDI.

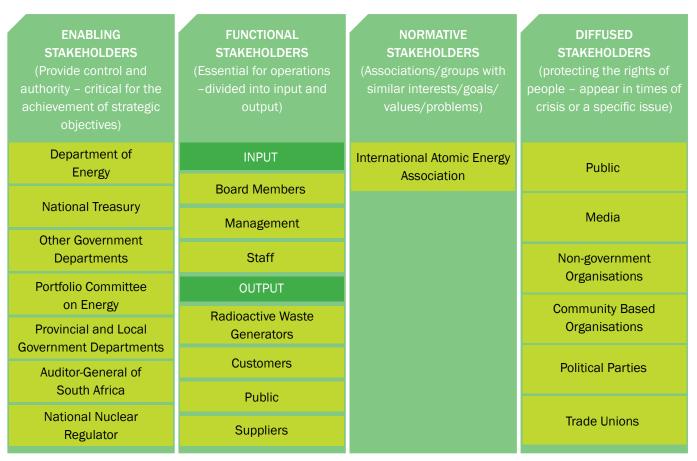


Figure 1: Stakeholder Analysis Matrix

1.2 ORGANISATIONAL ENVIRONMENT

The Institute's macro-organisational structure reflects the key operational functions to oversee the core operational components of the Institute, as well as the key support capacity for effective delivery on the Institute's mandate. The structure is aligned to the Institute's strategic programmes, namely: Administration, Radwaste Operations, Radwaste Technology and Siting, and Radwaste Compliance Management.

The Institute is currently in the process of undertaking an organisational design review exercise in order to find the most viable, optimised organisational structure in order the execute the mandate of the Institute in the most efficient and effective way. It is envisaged that the organisational design review exercise will be completed by October 2019.

Recognising that skills development is a continual process in the workplace, NRWDI, together with the National School

of Government, commenced a skills audit of the Institute. The skills audit is a process of identifying the skills and knowledge base in the entity giving NRWDI the opportunity to identify gaps that will impact on the achievement of the organisational objectives. In response to the skills audit, a Workplace Skills Plan will be developed. The skills audit will also inform the training and development plan of all NRWDI employees ensuring that each NRWDI employee has the necessary skill set to meaningfully contribute to the mandate of NRWDI.

It must be noted that NRWDI's Headquarters are on the Necsa Pelindaba site, which is a National Key Point. NRWDI is therefore highly dependent on Necsa for the provision of facilities and the management thereof, logistical services, procurement services, payroll, finance, IT and medical surveillance. In order to become less dependent on Necsa for providing these services, the HR and pay roll services, supply chain management and logistical services will be transfered from Necsa in the new financial year.

The nature of NRWDI's operations is such that it will always have a need for medical surveillance services and the opportunity to establish its own is dependent on the financial sustainability and maturity levels of the Institute. For now, it would be cost effective to utilise the medical surveillance services of Necsa until NRWDI is in a position to have its own, which may be more of a long-term vision.

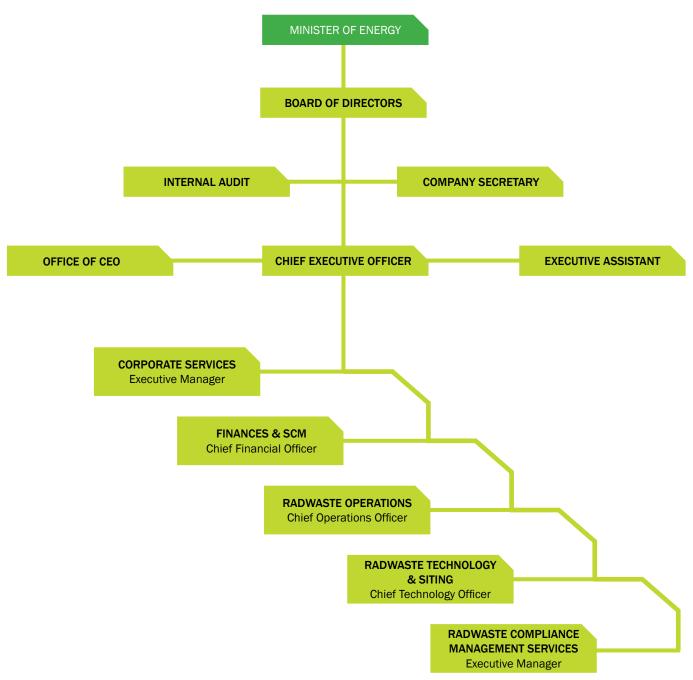


Figure 2: NRWDI Structure

2. REVISIONS TO LEGISLATIVE AND OTHER MANDATES

2.1 CONSTITUTIONAL MANDATE

The NRWDI mandate is underpinned by section 24(b) of the Constitution of the Republic of South Africa, Act 108 of 1996 which states that:

Everyone has the right -

- (a) To an environment that is not harmful to their health or well-being; and
- (b) To have the environment protected for the benefit of present and future generations through reasonable legislative and other measures that:
 - (i) Prevent pollution and ecological degradation;
 - (ii) Promote conservation; and
 - (iii) Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

2.2 LEGISLATIVE MANDATE

The management of radioactive waste disposal on a national basis is assigned to the National Radioactive Waste Disposal Institute. The Institute is an independent entity established by statute under the provision of section 55(2) of the Nuclear Energy Act (No. 46 of 1999) to fulfil the institutional obligation of the Minister of Energy.

The National Radioactive Waste Disposal Institute Act (NRWDIA) (No. 53 of 2008) was proclaimed by the President of the Republic of South Africa in *Government Gazette No. 32764* and NRWDIA became effective on 1 December 2009. The NRWDIA endorsed the establishment of the National Radioactive Waste Disposal Institute (NRWDI).

As a public entity, NRWDI is also governed by the PFMA (No. 1 of 1999) as amended by Act No.29 of 1999, and it is listed as Schedule 3A public entity.

2.3 POLICY MANDATE

The Institute is mandated to manage radioactive waste disposal and related waste management activities on a national basis.

This mandate is articulated in a number of policy documents as reflected below:

- Radioactive Waste Management Policy and Strategy for South Africa (2005); and
- Nuclear Energy Policy and Strategy for South Africa (2008).

In addition to the abovementioned policies, South Africa is also a contracting party and signatory to several international conventions tasked with environmental regulation functions, in particular the Joint Convention on Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

One of the objectives of NRWDI is to fulfil national obligations in respect of the long-term management of radioactive waste disposal and related waste management activities as dictated by these international conventions.

2.4 FUNCTIONAL MANDATE

The functions of the Institute as per Section 5 of the NRWDIA (No.53 of 2008) are summarised as follows:

- Manage radioactive waste disposal on a national basis:
- Operate the national LLW repository at Vaalputs;
- Design and implement disposal solutions for all categories of radioactive waste;
- Develop criteria for accepting and disposing of radioactive waste in compliance with applicable regulatory safety requirements and any other technical and operational requirements;
- Assess and inspect the acceptability of radioactive waste for disposal and issue radioactive waste disposal certificates;
- Manage, operate and monitor operational radioactive waste disposal facilities including related predisposal management of radioactive waste on disposal sites;
- Investigate the need for any new radioactive waste disposal facilities and to site, design and construct new facilities as required;
- Define and conduct R&D aimed at finding solutions for long-term radioactive waste management;
- Maintain a national radioactive waste database and publish a report on the inventory and location of all radioactive waste in the Republic at a frequency determined by the Board of Directors;
- Manage ownerless radioactive waste on behalf of the Government, including the development of radioactive waste management plans for such waste;
- Assist generators of small quantities of radioactive waste in all technical aspects related to the management of such waste;
- Implement institutional control over closed repositories, including radiological monitoring and maintenance as appropriate;
- Implement any assignments or directives from the Minister regarding radioactive waste management;
- Provide information on all aspects of radioactive waste management to the public living around radioactive waste disposal facilities and to the public in general;

- · Advise nationally on radioactive waste management;
- Co-operate with any person or institution in matters falling within these functions; and
- Any other function necessary to achieve the objectives of the Institute.

The majority of the above functions are currently performed within the scope of LLW inventories. In future, the scope would need to be extended to address the national inventory of radioactive waste consisting of ILW, HLW, long-lived waste, spent/used nuclear fuel and disused sealed radioactive sources. This implies that alternative disposal concepts would have to be researched, designed and implemented. This might also require that alternative disposal sites be obtained, characterised, constructed and operated.

2.5 INTERNATIONAL CONVENTIONS

The assurance of nuclear safety is reinforced by a number of international instruments. These include certain Conventions such as the Convention on Nuclear Safety and Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management that are legally binding on the participating States. South Africa, as a contracting party to these conventions is obliged to adhere to the articles of these conventions and to provide regular reports on compliance with these conventions.

The Joint Convention establishes an international peer review process among Contracting Parties and provides incentives for Member States to improve nuclear safety in line with international best practises. One of the objectives of the Institute is to fulfil national obligations in respect of international nuclear instruments relating to management of spent nuclear fuel and radioactive waste management, including disposal, to ensure that the Republic of South Africa is in compliance with the articles of the Joint Convention through existing national legal and regulatory infrastructure.

The South African Joint Convention report provides information on used fuel and waste management facilities, radioactive waste inventories, ongoing decommissioning projects, used fuel and radioactive waste management safety, as well as information on any imports/exports of radioactive waste (trans-boundary movements) and disused sealed radioactive sources.

2.6 PLANNED POLICY INITIATIVES

The sustainability of the Institute is highly dependent on the establishment and implementation of the Radioactive Waste Management Fund (RWMF) as envisaged in the National Radioactive Waste Management Policy and Strategy of 2005. It is therefore imperative that the Radioactive Waste Management Fund Bill is expedited in the MTEF period by the DoE as the passing of the Bill will provide for the financial sustainability of the Institute thus reducing its dependence on the fiscus.

Sealed radioactive sources, including disused sealed sources, are controlled as Group IV Hazardous Substances in terms of the Hazardous Substances Act (No. 15 of 1973) and are regulated by the Directorate Radiation Control in the Department of Health.

The safety, security and control of disused radioactive sources is a high priority and in line with international commitment to prevent radiation accidents that may be caused by the potential abuse and misuse of such sources for malicious purposes and other undesirable uses.

Currently all disused sealed radioactive sources are temporarily stored at Necsa because the end point (i.e., final disposal) has not yet been defined in radioactive waste management plans. The disposal of all radioactive material falls within the ambit of the NNR and therefore the regulatory framework to manage the total life cycle of sealed radioactive sources needs to be harmonised. NRWDI will liaise with all role players and stakeholders to mitigate these risks by implementing sustainable disposal options (end points) for various categories of disused sealed radioactive sources (DSRSs).

NRWDI is desirous to implement a Borehole Disposal Facility for the disposal of DSRSs. Borehole disposal has some specific advantages. It requires a limited area and infrastructure, and it can be constructed, operated and closed in a short time. It can benefit from well-established construction procedures and from standardised engineered barriers contributing to radionuclide containment. Its small footprint also contributes to isolating the waste as it results in a low probability of human intrusion. One of the most important features of the disposal of sources in a borehole disposal facility is that it provides for an ultimate security solution for DSRS.

3. OVERVIEW OF BUDGET AND MTEF ESTIMATES

3.1 EXPENDITURE ESTIMATES

	Budget	Audited	Budget	Audited	Budget	Audited	Budget	Revised estimate	Medi	Medium-term estimate	mate
R thousand	2015	2015/16	2016		2017/18	/18	2018/19	3/19	2019/20	2020/21	2021/22
Revenue											
Non-tax revenue	1 030	1 030	413	413	683	1 210	1 416	1 416	1 526	2 094	2 364
Interest received	1 030	1 030	413	413	683	1 210	1 416	1 416	1 526	2 094	2 364
Waste Disposal Fees	0	0	5 112	5 112	0	0	0	0	0	0	0
Other non-tax revenue (0SG)	0	0	0	0	1 500	0	0	0	0	0	0
Other non-tax revenue (CISF)	0	0	0	0	8 050	0	0	0	0	0	0
Transfers received	0	0	10 000	10 000	30 000	30 000	45 532	45 532	47 499	49 397	51 564
Total revenue	1 030	1 030	15 524	15 524	40 233	31 211	46 948	46 948	49 025	51 491	53 928
Expenses											
Current expenses	7 039	7 039	24 925	24 925	40 233	30 320	46 948	46 948	49 025	51 491	53 928
Compensation of employees	396	396	15 465	15 465	26 625	26 192	35 139	35 139	40 171	42 771	45 549
Directors remuneration	1 570	1 570	842	842	450	324	294	294	309	325	342
Goods & Services of which:	5 044	5 044	8 540	8 540	3 848	3 537	10 470	10 470	8 135	7 964	7 582
Travel & Subsistence (1)	810	810	872	872	200	282	1 200	1 200	1 200	1 200	1 000
Training ⁽²⁾	0	0	2	2	0	11	1 375	1375	862	298	750
Audit Fees	0	0	0	0	1 072	782	1 181	1 181	1 293	1 452	1 200
Consultant Fees	3 197	3 197	402	402	0	4	4	4	4	5	5
Bank Charges	0	0	2	2	5	48	52	52	22	58	61
Cleaning Services	12	12	9	9	25	0	0	0	0	0	0
Contracted-out Services (3)	132	132	418	418	350	279	250	250	092	220	750
Entertainment Costs	15	15	13	13	0	11	13	13	12	13	14
Staff Refreshments (4)	0	0	0	0	0	13	4	4	11	11	12
Insurance ⁽⁵⁾	0	0	0	0	0	0	0	0	120	127	134
/7 Costs ⁽⁶⁾	0	0	1	1	120	265	250	250	689	645	829
Events (7)	0	0	0	0	0	0	25	25	22	28	30
Legal costs ⁽⁸⁾	27	47	26	26	0	23	340	340	008	300	250
Branding material (9)	0	0	0	0	0	16	800	800	159	100	106
Advertisement & recruitment	451	451	407	407	0	72	250	250	0	0	0

	Budget	Audited	Budget	Audited	Budget	Audited	Budget	Revised	Medi	Medium-term estimate	mate
		outcome		outcome		outcome		estimate			
R thousand	201	2015/16	2016/17	5/17	2017/18	/18	2018/19	3/19	2019/20	2020/21	2021/22
Licences	0	0	0	0	0	23	0	0	0	0	0
Membership Fees (10)	0	0	0	0	96	6	105	105	116	122	129
PC software	0	0	0	0	0	16	0	0	0	0	0
Computer services (11)	0	0	0	0	20	0	52	55	19	64	89
Workshops/Conferences (12)	145	145	100	100	140	73	154	154	154	154	162
Rental Buildings	80	80	862	862	992	724	764	764	811	098	206
Postage & Courier services	0	0	2	2	0	13	15	15	16	17	18
Stationery and Printing (13)	49	49	27	27	20	31	89	89	41	43	45
External printing (14)	0	0	0	0	0	230	284	284	295	305	322
Telecommunication (15)	∞	∞	6	6	346	174	188	188	334	398	367
Consumable Materials	80	80	26	26	30	97	09	09	64	89	72
Electricity charges	17	2T	98	98	151	0	0	0	0	0	0
Impairment of receivables	0	0	5 132	5 132	0	0	0	0	0	0	0
Small Capital (16)	0	0	0	0	118	0	150	150	59	89	20
Repair and Maintenance (17)	0	0	140	140	30	4	33	33	36	88	40
Public Safety Information	0	0	0	0	0	0	250	250	250	250	264
Forum											
Safety Case Support (18)	0	0	0	0	0	0	2 600	2 600	531	123	130
Operating Material	0	0	0	0	9 200	0	0	0	0	0	0
Capital costs	0	0	0	0	0	0	716	716	0	0	0
Depreciation	28	28	78	78	110	267	329	329	410	431	455
Total expenses	680 7	680 2	24 925	24 925	40 233	30 320	46 948	46 948	49 025	51 491	53 928
Surplus/(Deficit)	(600 9)	(600 9)	(9 401)	(9 401)	0	891	0	0	0	0	0

Additional notes to budget amounts for MTEF

- 1) Travel to Vaalputs, Parliament, technical meetings domestic and international as well travel for Board members.
- 2) Statutory training and capacity development.
- 3) Qualifications verification, labour law advice and other specialized services.
- 4) Catering for Board meetings, other meetings with external stakeholders as well as internal engagements with staff.
- 5) Short-term insurance.
- 6) Software development and hardware.
- 7) Events relating to WINSA and other nuclear related initiatives.
- 8) Provision for unforeseen legal costs that may be incurred.
- 9) Branding material like banners, pamphlets, brochures, signage.
- 10) Corporate membership fees and individual professional membership fees.
- 11) Computer keyboards, mouse, mouse pads.
- 12) Participation in workshops and conferences.
- 13) Internal stationery.
- 14) Printing of corporate statutory documents like the strategic plan, annual performance plan and annual report.
- 15) Payment to Necsa for telephones, network and email facilities.
- 16) Capital projects less than R5 000.00.
- 17) Repairs and maintenance building/equipment.
- 18) Relicensing of Vaalputs.

3.2 RELATING EXPENDITURE TRENDS TO STRATEGIC OUTCOME ORIENTED GOALS

The focus of the MTEF will be on NRWDI's legislative mandate imperatives and its responsiveness to Government's developmental priorities, as encapsulated in the MTSF's 14 priority outcomes in support of the NDP. It goes without saying that the four strategic goals are rooted in these priority outcomes, which have been converted into four APP Programmes, each with its relevant projects and budget. The strategic outcome goals are further unpacked into strategic objectives, which are long-term organisational outputs that help to convert the broad vision into specific plans and projects. These strategic objectives are further developed into programmes, whose components are outputs, performance indicators and targets, which are articulated in Part B of this APP.

The expenditure of the Institute is expected to increase from R46.94 million in 2018/19 to R53.93 million in 2021/22. The majority of the Institute's expenditure will be associated with the Vaalputs functional shift, Vaalputs Nuclear Installation License, setting up of internal processes and systems, R&D activities, and to

provide information on all aspects of radioactive waste management to the public living around radioactive waste disposal facilities and to the public in general. The number of personnel in the Institute is expected to increase from 34 in 2018/19 to 36 in 2019/20 and thereafter remain constant over the medium-term. Expenditure on compensation of employees is expected to increase from R40.17 million in 2019/20 to R45.55 million in 2021/22 mainly due to general annual inflationary increases.

The NRWDI will derive its revenue from transfer payments received from government allocations. This allocation is expected to increase from R47.50 million in 2019/20 to R51.56 million in 2021/22.

The Institute has the potential to receive other non-tax revenue by providing waste disposal and related services to waste generators, in particular Necsa and Eskom. This will, however, only be possible after the transfer of the Vaalputs LLW disposal function and related assets to the NRWDI. Total revenue is projected to grow from R1.53 million in 2019/20 to R2.36 million in 2021/22 as a result of interest received over this period.

Table 1: Relating Expenditure Trends to Strategic Outcome Goals

				Revised	Mediur	n-term expe	nditure
	Au	dited outcor	ne	estimate		estimate	
R thousand	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
1. Administration	7 039	24 925	19 497	29 361	30 887	32 696	34 105
2. Radioactive Waste Disposal	0	0	3 074	4 309	4 630	4 894	5 131
Operations							
3. Radioactive Waste Technology,	0	0	4 036	4 566	4 937	5 239	5 520
Research and Investigations							
4. Radioactive Waste Disposal	0	0	3 713	8 712	8 570	8 662	9 172
Compliance							
Total	7 039	24 925	30 320	46 948	49 025	51 491	53 928

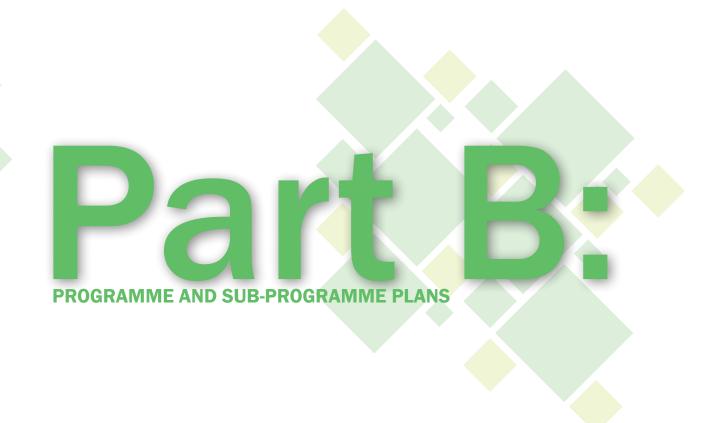
4. ALIGNMENT WITH THE DEPARTMENT OF ENERGY'S STRATEGIC PLAN AS WELL AS THE NATIONAL DEVELOPMENT PLAN AND THE MEDIUM-TERM STRATEGIC FRAMEWORK

NRWDI reports to the DoE and it is critical for the Institute to have its strategic plan aligned to that of the DoE. Being an organ of state, it is imperative for NRWDI's APP to also be aligned to the NDP and the MTSF.

Table 2: Other Planning Instruments Integrated into NRWDI Planning

DoE Strategic Outcome Orientated Goal	NRWDI Strategic Outcome Orientated Goal	NRWDI Strategic Objective	Linkages to the NDP Proposals	Linkages to the MTSF (2014–2019) (Outcomes)	NRWDI Programme
SOOG1: Corporate Governance	SOOG 1: Effective resource utilisation and good governance	SO1.1 Improved payment system SO1.2 Highly motivated team of employees SO1.3 Good image of NRWDI SO1.4. National Radioactive Waste Management System	Creating a basis for making choices about how to best use limited resources Chapter 15 of the NDP relates to the eradication of corruption	Outcome 5: Skilled and capable workforce to support an inclusive growth path' Outcome 12: An efficient, effective and development- oriented public service	Programme 1: Administration
SOOG 2: Environmental Assets	SOOG 2: Safe management and disposal of radioactive waste	SO2.1 Excellent radioactive waste management and disposal service on a national basis SO2.2 Environmentally sound management and disposal of radioactive waste SO2.3 Transparent waste disposal site management	Creating a basis for making choices about how to best use limited resources Chapter 5 of the NDP relates to ensuring environmental sustainability and transition to a low carbon economy	Outcome 5: Skilled and capable workforce to support an inclusive growth path Outcome 10: Protect and enhance our environmental assets and natural resources Outcome 12: An efficient, effective and development- oriented public service	Programme 2: Radwaste Operations

DoE Strategic Outcome Orientated Goal	NRWDI Strategic Outcome Orientated Goal	NRWDI Strategic Objective	Linkages to the NDP Proposals	Linkages to the MTSF (2014–2019) (Outcomes)	NRWDI Programme
SOOG3: Infrastructure	SOOG 3: Comprehensive site selection, site characterisation and design of radioactive waste disposal storage and related facilities	SO3.1 Effective scientific and technical support for development and maintenance of safety cases	Creating a basis for making choices about how to best use limited resources Chapter 5 of the NDP relates to ensuring environmental sustainability and transition to a low carbon economy	Outcome 6: An efficient, competitive and responsive economic infrastructure network Outcome 10: Protect and enhance our environmental assets and natural resources	Programme 3: Radwaste Technology and Siting
SOOG 4: Regulations	SOOG 4: Effective compliance with national nuclear, health, safety and environmental legislative and regulatory requirements	SO4.1. Quality Management System (QMS) SO4.2. Nuclear Installation Licence	Creating a basis for making choices about how to best use limited resources Chapter 5 of the NDP relates to ensuring environmental sustainability and transition to a low carbon economy	Outcome 5: Skilled and capable workforce to support an inclusive growth path Outcome 10: Protect and enhance our environmental assets and natural resources Outcome 12: An efficient, effective and development- oriented public service	Programme 4: Radwaste Compliance Management



5. PROGRAMME AND SUB-PROGRAMMES

5.1 PROGRAMME 1: ADMINISTRATION

5.1.1 PROGRAMME OVERVIEW

To ensure that NRWDI is operationally efficient, costeffective, properly managed and complies with good corporate governance principles.

5.1.2 SUB-PROGRAMMES

The core outcome is achieved through the provision of key corporate functions under the following sub-programmes:

 Office of CEO (Strategic Planning, Risk Management, Organisational Performance Management, Internal Audit, Communications and Stakeholder Relations, Corporate Social Investment).

The Office of the CEO is established to ensure that NRWDI has processes and systems that are efficient, integrated, quality controlled and cost effective, which will enable the Institute to effectively and efficiently deliver on its mandate.

Strategic planning co-ordinates the translation of policy priorities agreed upon by the Board into actionable strategic plans with clear objectives, performance measures and resource commitments. It also carries out monitoring and evaluation of the strategy as articulated in the APP and institutional operational plan to ensure that the Institute delivers on its strategic objectives and improves and sustains its performance by ensuring the enhancement of the risk management culture.

Internal Audit plays a pivotal role in the combined assurance framework by providing independent assurance over risk management and systems of internal control.

Communications and Stakeholder Relations aims to remove existing constraints by achieving alignment

through effective stakeholder engagement and valueadding partnerships that are mutually beneficial, which will result in the organisation meeting and exceeding its strategic goals and objectives. **Corporate Social Investment** activities intend to focus on the upliftment and development of the communities in and around NRWDI's waste disposal facility as well as the broader society to create awareness on the mandate and the work of NRWDI.

- Finance and Supply Chain Management
 Finance and Supply Chain Management ensures compliance with all relevant financial statutes and regulations, the most important of which is the PFMA. It ensures that goods and services are procured taking into consideration the procurement legislation as well as with due cognisance to the principles of corporate governance.
- Corporate Services (Human Capital Management, Information and Communications Technology Management, Legal Services Management, and General Administration and Facilities Management)

The Corporate Services sub-programme primarily provides integrated strategic and operational business enabling services.

Legal Services is responsible for providing a comprehensive legal advisory service to enable the entity to execute its mandate effectively within the rule of law. Human Resources (HR) Management provides transformational HR support enabling the entity to attract, develop and retain skilled people across the organisation. Information and Communication Technology (ICT) provides long term planning and day to day support in respect of ICT needs, services and systems. Facilities Management ensures physical and information security. It also provides accommodation and the maintenance and servicing thereof.

Programme 1: Strategic Outcome Oriented Goals: Effective Resource Utilisation and Good Governance					
Strategic Objective S01.1	Effective payment system in place ensuring timely settlement of creditors				
Objective Statement	To ensure that 100% of creditors are paid within 30 days after relevant documents are received.				
Baseline	None				
Strategic Objective SO1.2	Highly motivated team of employees				
Objective Statement	To ensure staff are managed according to best practice so that each employee makes a valuable contribution to the achievement of organisational objectives.				
Baseline	None				

Strategic Objective S01.3	Good image of NRWDI
Objective Statement	To position and promote NRWDI as the custodian for
	the safe management of radioactive waste so that its
	stakeholders are aware, appreciate and support the role
	and actions of the Institute.
Baseline	None

Strategic Objective SO1.4	National Radioactive Waste Management Inventory
	System
Objective Statement	The Radioactive Waste Management Inventory System
	is an IAEA requirement as well as a requirement of the
	NRWDIA. The system will be used to monitor the waste
	generated, stored and disposed nationally.
Baseline	None

Table 3: Programme 1: Administration: Programme Performance Indicators and Annual Targets 2019/20-2021/22

	Programme					
	Performance	Strategic Plan	Estimated			
	Indicator	Target	Performance	IV	ledium-Term Targe	ts
			2018/19	2019/20	2020/21	2021/22
1	Percentage of	100% of all	100% of all	100% of all	100% of all	100% of all
	creditors paid within	creditors paid	creditors paid	creditors paid	creditors paid	creditors paid
	30 days after all	within 30 days	within 30 days	within 30 days	within 30 days	within 30 days
	relevant documents	after relevant	after relevant	after relevant	after relevant	after relevant
	are received	documents are	documents are	documents are	documents are	documents are
		received	received	received	received	received
2	Number of HR	HR policies and	Policies	Policies	Policies	Policies
	policies developed	procedures,	implemented	implemented	implemented	implemented
		which will	and reviewed	and reviewed	and reviewed	and reviewed
		ensure that				
		employees				
		are managed				
		equally and				
		according to				
		best practice				
		so that each				
		employee makes				
		a valuable				
		contribution to				
		the achievement				
		of organisational				
		objectives				
3	Percentage positive	80% positive	70% positive	80% positive	80% positive	80% positive
	feedback from	feedback from	feedback from	feedback from	feedback from	feedback from
	stakeholder surveys	stakeholders	stakeholders	stakeholders	stakeholders	stakeholders

	Programme Performance Indicator	Strategic Plan Target	Estimated Performance	N	ledium-Term Targe	ts
		201.622	2018/19	2019/20	2020/21	2021/22
4	Document on waste database inventory system design	Fully functional waste database inventory system utilised for waste	Document detailed waste database inventory system	Develop and code waste database inventory system	Populating the RAWIS system with waste generators'	Maintain a national radioactive waste database
	Coding waste database inventory system	generators, disposal and storage	design		waste inventory data	and publish a report on the inventory and location of all
	Functional waste database inventory system					radioactive waste in the Republic

Table 4: Programme 1: Programme Performance Indicators and Quarterly Targets for 2019/20

	Programme						
	Performance	Reporting	Annual				
	Indicator	Period	Targets		Quarterl	y Targets	
			2019/20	Q1	Q2	Q3	Q4
1	Percentage of	2019/20	100% of	100% of	100% of	100% of	100% of
	creditors paid within		creditors	creditors	creditors	creditors	creditors
	30 days		paid within	paid within	paid within	paid within	paid within
			30 days after	30 days after	30 days after	30 days after	30 days after
			relevant	relevant	relevant	relevant	relevant
			documents	documents	documents	documents	documents
			are received	are received	are received	are received	are received
2	Number of	2019/20	Policies	5 Policies	5 Policies	5 Policies	5 Policies
	HR policies		implemented	implemented	implemented	implemented	implemented
	implemented and		and reviewed	and reviewed	and reviewed	and reviewed	and reviewed
	reviewed						
3	Percentage	2019/20	80% positive	Review	Finalise	Distribute	Stakeholder
	feedback from		feedback from	current	stakeholder	stakeholder	feedback
	stakeholder surveys		stakeholders	stakeholder	survey	survey	through
				survey	questionnaire	questionnaire	surveys: 80%
				questionnaire			satisfaction
4	Document on waste	2019/20	Test and	Develop	Test	Upload	Upload
	database inventory		operationalise	software tool	Extraction	Eskom Waste	Eskom Waste
	system design		the waste	to extract	Tool	Disposal	Disposal
			database	Eskom waste		Records from	Records
	Waste database		inventory	disposal		Vaalputs	Vaalputs
	inventory coding		system	records from		Informix	Informix
	system			the Vaalputs		database	database
				Informix		- 50%	- 100%
	Waste database			database		completed	completed
	inventory functional						
	system						

5.2 **PROGRAMME 2: RADWASTE OPERATIONS**

Programme Overview

The aim of the programme is to provide radioactive waste disposal and related services on a national basis that is, safe, technically sound, socially acceptable, environmentally responsible and economically feasible ensuring that no undue burden is placed on future generations due to past, present and future involvement in nuclear programmes.

The future of the environment is a global agenda item and management and disposal of radioactive waste material must be carried out in such a manner that human health and the environment are protected.

The following activities are inherently part of the Radwaste Operations Division:

- · Operate the national LLW repository at Vaalputs;
- Manage, operate and monitor operational radioactive waste disposal facilities including related predisposal management of radioactive waste on disposal sites;
- Manage ownerless radioactive waste on behalf of the Government, including the development of radioactive waste management plans for such waste; and
- Provide information on all aspects of radioactive waste management to the public living around radioactive waste disposal facilities and to the public in general.

Table 5: Programme 2: Radwaste Operatio	ns Strategic Objectives
Programme 2: Strategic Outcome Orie	entated Goals: Safe Management and Disposal of Radioactive Waste
Strategic Objective S0.2.1	Excellent radioactive waste management and disposal
	service on a national basis
Objective Statement	To provide waste disposal services on a national basis that
	are safe, technically sound and cost effective.
Baseline	None
Strategic Objective S02.2	Environmentally sound management and disposal of
	radioactive waste
Objective Statement	To minimise the physical, chemical and biological stresses
	on the environment, thus ensuring the long-term integrity
	of the environment.
Baseline	None
Strategic Objective S02.3	Transparent waste disposal site management
Objective Statement	Meetings need to be held on a quarterly basis with the
	communities around the Vaalputs area to educate and
	make them aware of nuclear safety and other issues
	relating to Vaalputs.
Baseline	None

Table 6: Programme 2: Radwaste Operations: Programme Performance Indicators and Annual Targets 2019/20–2021/22

	Programme Performance Indicator	Strategic Plan Target	Estimated Performance	M	ledium Term Targe	to
	indicator	laiget	2018/19	2019/20	2020/21	2021/22
1	Percentage of compliance rate	Increased compliance rate with regards to the annual SHEQ audit	80% compliance rate with regards to annual SHEQ audit	85% compliance rate with regards to annual SHEQ audit	85% compliance rate with regards to annual SHEQ audit	85% compliance rate with regards to annual SHEQ audit
2	ISO 9001 and ISO 14001 Certification	ISO 9001 and ISO 14001 certification maintained	Maintain ISO 9001 and 14001 certification	Maintain ISO 9001 and 14001 certification	Maintain ISO 9001 and 14001 certification	Maintain ISO 9001 and 14001 certification
3	Number of meetings held with Vaalputs communities in Kamiesberg	12 meetings held with communities	4 VPSIF Meetings	4 VPSIF Meetings	4 VPSIF Meetings	4 VPSIF Meetings

Table 7: Programme 2: Radwaste Operations: Programme Performance Indicators and Quarterly Targets for 2019/20

	Programme Performance Indicator	Reporting Period	Annual Targets		Quarterl	y Targets	
			2019/20	Q1	Q2	Q3	Q4
1	Percentage of compliance rate	2019/20	85% compliance rate with regards to annual SHEQ audit	No target	No target	No target	85% compliance rate with regards to annual SHEQ audit
2	ISO 9001 and ISO 14001 Certification	2019/20	Maintain ISO 9001 and ISO 14001	Maintain ISO 9001 and ISO 14001 Certification			
3	Number of meetings held with Vaalputs communities in the Kamiesberg	2019/20	4 VPSIF Meetings held	1 VPSIF Meeting held	1 VPSIF Meeting held	1 VPSIF Meeting held	1 VPSIF Meeting held

5.3 PROGRAMME 3: RADWASTE TECHNOLOGY AND SITING

The aim of the programme is to develop and implement programmes for safe storage and disposal of spent nuclear fuel or high level radioactive waste and long lived intermediate level waste on a national basis.

Specific criteria needs to be developed for the siting of suitable sites for the safe management and disposal of possible repositories. There are also various technologies for the safe management of radioactive waste material and the technology that is applicable for South Africa needs to be employed after consultative processes has taken place.

The following activities are inherently part of the Radwaste Technology and Siting Division:

- Investigate the need for any new radioactive waste disposal facilities and site, design and construct new facilities as required;
- Define and conduct R&D aimed at finding solutions for long-term radioactive waste management;
- Maintain a national radioactive waste database and publish a report on the inventory and location of all radioactive waste in the Republic at a frequency determined by the Board of Directors.

Table 8: Programme 3: Strategic Objectives: Radwaste Technology and Siting

Programme 3: Strategic Outcome Orientated Goal: Radwaste Technology and Siting					
Strategic Objective S03.1	Efficient scientific and technical support for development				
	and maintenance of safety cases				
Objective Statement	Scientific and technical support is required in the				
	development and maintenance of safety cases for storage				
	and disposal facilities for regulatory compliance purposes.				
Baseline	None				

Table 9: Programme 3: Radwaste Technology and Siting: Programme Performance Indicators and Annual Targets 2019/20–2021/22

	Programme Performance	Strategic Plan	Estimated			
	Indicator	Target	Performance	Medium-Term Targets		
			2018/19	2019/20	2020/21	2021/22
1	Number of Research and Development	3 R&D reports	1 R&D report developed	1 R&D report developed	1 R&D report development	1 R&D report developed
	(R&D)reports		,			

Table 10: Programme 3: Radwaste Technology and Siting: Programme Performance Indicators and Quarterly Targets for 2019/20

	Programme Performance Indicator	Reporting Period	Annual Targets		Quarterl	y Targets	
			2019/20	Q1	Q2	Q3	Q4
1	Number of Research and Development (R&D)reports	2019/20	1 R&D report	No target	No target	No target	Final R&D report completed and tabled at EXCO for approval

5.4 PROGRAMME 4: RADWASTE COMPLIANCE MANAGEMENT

The aim of the programme is to ensure that NRWDI's core mandate (disposal of radioactive waste on a national basis) is executed in compliance with quality, health, safety, environmental and nuclear licensing regulatory requirements, relevant international standards and best practices. The programme also seeks to provide management systems and resources to discharge the obligations associated with holding a nuclear authorisation. The Radwaste Compliance Management Division provides a support function to the Institute in terms of developing and ensuring compliance with the Nuclear Installation Licence including the required safety,

health, environment and quality management systems. The following activities are inherently part of the Radwaste Compliance Management Division:

- Implementation of institutional control over closed repositories, including radiological monitoring and maintenance as appropriate;
- Assessing and inspecting the acceptability of radioactive waste for disposal and issuing of radioactive waste disposal certificates; and
- Developing criteria for accepting and disposing of radioactive waste in compliance with applicable regulatory safety requirements and any other technical and operational requirements.

Table 11: Programme 4: Radwaste Compliance Management: Strategic Objectives

Programme 4: Strategic Outcome Orientated Goals: Radwaste Compliance Management					
Strategic Objective SO4.1 Quality Management System					
Objective Statement	To ensure policies and procedures are developed and effectively implemented to give effect to compliance with regulatory requirements with regards to safety, health, environment and quality management systems.				
Baseline	None				

Strategic Objective S04.2	Nuclear Installation Licence
Objective Statement	To ensure that resources (both human resources and
	financial resources) are effectively utilised for the
	development, implementation, compliance assessment,
	review and continual improvement of the Nuclear
	Installation License for Vaalputs.
Baseline	None

Table 12: Programme 4: Radwaste Compliance Management: Programme Performance Indicators and Annual Targets 2019/20-2021/22

	Programme Performance Indicator	Strategic Plan Target	Estimated Performance		ledium-Term Targe	
			2018/19	2019/20	2020/21	2021/22
1	Percentage of Quality	QMS in place	75% of the QMS	100% of the	100% of	100% of
	Management System		documents	QMS documents	the QMS	the QMS
	(QMS) completed		completed	completed	implemented	implemented
					and maintained	and maintained
2	Percentage of 1	1 NIL issued	50% of 1 NIL	100% of 1 NIL	Vaalputs NIL	Vaalputs NIL
	Nuclear Installation	in the name of	documents	documents	implemented	implemented
	Licence (NIL)	NRWDI	completed	completed	and maintained	and maintained
	developed (Vaalputs)			(Vaalputs NIL		
				issued in the		
				name of NRWDI)		

Table 13: Programme 4: Radwaste Compliance Management: Programme Performance Indicators and Quarterly Targets for 2019/20

	Programme Performance Indicator	Reporting Period	Annual Targets		Quarterl	y Targets	
			2019/20	Q1	Q2	Q3	Q4
1	Percentage of Quality Management System (QMS) completed	2019/20	100% of QMS completed and implemented as per project schedule	25% of annual target achieved	50% of annual target achieved	75% of annual target achieved	100% of annual target achieved
2	Percentage of 1 NIL developed (Vaalputs NIL) See Note 1*	2019/20	100% of 1 NIL documents completed	25% of annual target achieved	50% of annual target achieved	75% of annual target achieved	100% of annual target achieved (Vaalputs NIL issued in the name of NRWDI)

^{*}Note 1: Completion of NIL documents dependant on NNR responses and response times.



6. LINKS TO THE LONG-TERM INFRASTRUCTURE AND OTHER CAPITAL PLANS

This section is not applicable to NRWDI.

7. **CONDITIONAL GRANTS**

This section is not applicable to NRWDI.

8. PUBLIC ENTITIES

This section is not applicable to NRWDI.

9. PUBLIC-PRIVATE PARTNERSHIPS

This section is not applicable to NRWDI



ANNEXURE A: VISION, MISSION AND VALUES

VISION

To achieve excellence in the safe management and disposal of radioactive waste in a manner that protects the environment for both current and future generations.

MISSION

To develop and implement a management approach for the long-term care and disposal of radioactive waste that is, safe, technically sound, socially acceptable, environmentally responsible and economically feasible.

VALUES

NRWDI has adopted the following corporate values, which serve as guiding principles around which its corporate culture and actions are governed and shaped. These corporate values are as follows:

Accountability	We will ensure accountability for all our actions.
Leadership	We will demonstrate <u>leadership</u> in all that we do.
Excellence	We will pursue excellence in every aspect of the business
Integrity	We will conduct ourselves with the utmost integrity at all times.
Engagement	We will promote <u>engagement</u> with all our stakeholders continuously.
Professionalism	We will act with professionalism at all times.
Transparency and Open Communication	We shall strive for <u>transparency</u> and <u>open communication</u> at all times.

ANNEXURE B: TECHNICAL INDICATORS

PROGRAMME 1: ADMINISTRATION

SO1.1 Improved payments system

Indicator Title	Percentage of Creditors Paid within 30 Days
Short definition	100% of creditors must be paid within 30 days after relevant documents are received
Purpose/importance	The President in his 2017 state of the nation address reiterated that all creditors to the state must be paid within 30 days. This relates to the achievement of Government's socioeconomic goals like, growing the economy and promoting SMME development.
Source or collection of data	Payment requests, invoices, proof of payments, payment reports
Method of calculation	Proper record keeping
Data limitations	Accuracy of filing systems
Type of indicator	Output
Calculation type	Cumulative
Reporting cycle	Quarterly
Desired performance	100% of creditors paid within 30 days after relevant documents are received
Indicator responsibility	Chief Financial Officer

SO1.2 Highly motivated team of employees

Indicator Title	Percentage Policies Implemented and Reviewed
Short definition	In order to maximise the potential of employees, it is necessary to manage them in terms of best practice
Purpose/importance	A strategic goal for the new entity was to have the necessary policies and procedures in place relating to the management of human capital, as a motivated team of employees will contribute optimally to the achievement of organisational goals. The policies have been developed and need to be implemented and reviewed to ensure that they are in line with best practice so that the potential of each employee can be maximised.
Source or collection of data	Policies, procedures, approval of policies and procedures, information sessions
Method of calculation	Proper record keeping
Data limitations	Accuracy of filing systems
Type of indicator	Output
Calculation type	Cumulative
Reporting cycle	Quarterly
Desired performance	Policies and procedures developed and kept updated in line with best practice
Indicator responsibility	Executive Manager: Corporate Services

PROGRAMME 1: ADMINISTRATION (CONTINUED)

S01.3 Good image of NRWDI

Indicator Title	Percentage Feedback from Stakeholder Surveys
Short definition	Stakeholder relations needs to be managed to ensure that relationships are conducted
	transparently, ethically and in the best interest of the entity
Purpose/importance	The principles of good governance have been adopted by the public service. The
	management of stakeholder relations in a transparent and ethical manner contributes to
	good governance.
Source or collection of	Stakeholder database, minutes from stakeholder engagements, feedback from
data	stakeholders, stakeholder surveys
Method of calculation	Proper record keeping
Data limitations	Accuracy of filing systems
Type of indicator	Output
Calculation type	Cumulative
Reporting cycle	Quarterly
Desired performance	80% of feedback from stakeholders
Indicator responsibility	Senior Manager: Office of CEO

SO1.4 Radioactive Waste Management Inventory System

301.4 Radioactive Waste Management Inventory System	
Indicator Title	Percentage Feedback from Stakeholder Surveys
Short definition	The Radioactive Waste Management Inventory System is an IAEA requirement to monitor the waste generated, stored and disposed of nationally
Purpose/importance	One of the responsibilities in the NRWDI is to have a database system in place, which will give the entity insight into how much radioactive waste is being generated, stored and disposed of.
Source or collection of data	Documents relating the business requirements, user requirement specification, detailed system design, coding of system
Method of calculation	Proper record keeping
Data limitations	Accuracy of filing systems
Type of indicator	Output
Calculation type	Cumulative
Reporting cycle	Quarterly
Desired performance	Document detailed system design
Indicator responsibility	Senior Manager: IT

PROGRAMME 2: RADWASTE OPERATIONS

SO2.1 Excellent radioactive waste management and disposal service on a national basis

Indicator Title	Percentage of Compliance Rate
Short definition	A waste disposal service that is safe, technically sound, socially acceptable and environmentally friendly will be implemented and the compliance rate will be measured in terms of the SHEQ audit
Purpose/importance	The health and safety of the public as well as the protection of the environment is critical to the safe disposal of radioactive waste.
Source or collection of data	Documents relating to the SHEQ audit
Method of calculation	Proper record keeping
Data limitations	Inadequate filing system
Type of indicator	Compliance
Calculation type	Cumulative
Reporting cycle	Annually
Desired performance	80% compliance
Indicator responsibility	Chief Operations Officer

SO2.2 Environmentally sound management and disposal of radioactive waste

Indicator Title	ISO 9001 and ISO 14001 Certification
Short definition	A quality and environmental management system for Vaalputs must be maintained for ISO
	9001 and
	ISO 14001 certification
Purpose/importance	The health and safety of the public as well as the protection of the environment is critical to
	the safe disposal of radioactive waste.
Source or collection of	Documents relating to ISO 9001 and 14001 certification
data	
Method of calculation	Proper record keeping
Data limitations	Inadequate filing system
Type of indicator	Compliance
Calculation type	Cumulative
Reporting cycle	Quarterly
Desired performance	ISO 9001 and 14001 certification maintained
Indicator responsibility	Chief Operations Officer

PROGRAMME 2: RADWASTE OPERATIONS (CONTINUED)

SO2.3 Transparent waste disposal site management

Indicator Title	Number of Meetings Held (minutes)
Short definition	The communities in the Kamiesberg Municipality area must be kept informed about
	nuclear safety and other related issues to gain their support
Purpose/importance	Regular communication with the necessary stakeholders are likely to lead to informed
	decisions being made, better objectives being set and the opposition is likely to become
	your supporters.
Source or collection of	Presentations, pamphlets and brochures that were distributed, flight tickets
data	
Method of calculation	Proper record keeping
Data limitations	Inadequate filing system
Type of indicator	Output
Calculation type	Cumulative
Reporting cycle	Quarterly
Desired performance	4 meetings held
Indicator responsibility	Chief Operations Officer

PROGRAMME 3: RADWASTE TECHNOLOGY AND SITING

SO3.1 Efficient scientific and technical support in the development and maintenance of safety cases for storage and disposal facilities

Indicator Title	Number of Research and Development Reports
Short definition	R&D reports need to be compiled for the development and maintenance of safety cases
Purpose/importance	Scientific and technical support is required in the development and maintenance of safety
	cases for storage and disposal facilities for regulatory compliance purposes.
Source or collection of	R&D reports
data	
Method of calculation	Proper recording of reports
Data limitations	Accuracy of filing systems
Type of indicator	Output
Calculation type	Cumulative
Reporting cycle	Annually
Desired performance	1 R&D report developed
Indicator responsibility	Chief Technology Officer

PROGRAMME 4: RADWASTE COMPLIANCE MANAGEMENT

S04.1 Quality Management System

Indicator Title	Percentage of Quality Management System Completed
Short definition	To be the holder of nuclear authorisation, a number of policies and procedures need to be
	developed regarding safety, health, environment, quality and radiation protection.
Purpose/importance	The development of policies and procedures to give effect to implementing regulatory
	requirements with regards to safety, health, environment and quality and radiation
	protection will assist the Institute in becoming the holder of a nuclear authorisation.
Source or collection of	Set of policies and procedures for the QMS
data	
Method of calculation	Proper recording of reports
Data limitations	Accuracy of filing systems
Type of indicator	Output
Calculation type	Cumulative
Reporting cycle	Quarterly
Desired performance	100% of the QMS developed
Indicator responsibility	Executive Manager: Radwaste Compliance Management

S04.2 Nuclear Installation License

Indicator Title	Percentage of documents completed for Vaalputs NIL
Short definition	To be the holder of nuclear authorisation, a number of policies, procedures and documents
	need to be developed and accepted by the NNR.
Purpose/importance	NRWDI becoming the holder of a Nuclear Installation Licence to dispose LLW at Vaalputs.
Source or collection of	Set of policies and procedures for the Vaalputs Nuclear Installation License
data	
Method of calculation	Proper recording of reports
Data limitations	Accuracy of filing systems
Type of indicator	Output
Calculation type	Cumulative
Reporting cycle	Quarterly
Desired performance	100% of the licensing documents developed
Indicator responsibility	Executive Manager: Radwaste Compliance Management

ANNEXURE C: RISK MANAGEMENT

Programme	Objective/Target	Risk Description	Root Cause	Consequence	Impact (1-5)	Likelihood (1-5)	Risk Level (Residual Risk)	Mitigation	Risk Owner
Programme 1 Programme 3 Programme 4	Improved payment system / 100% of all creditors paid within 30 days after relevant documents have been received	Inability to render payments within 30 days after all relevant documents have been received	Appropriate Reputat documents not sent on time by creditors to Adverse facilitate payment findings Delays in invoice Fruitless approval by end and was user expendition on SMM tracking system and sus	Reputational damage Adverse audit findings Fruitless and wasteful expenditure Negative impact on SMME viability and sustainability	ιΩ	Н	വ	Documentation to creditors outlining what is required for the efficient facilitation of payments	CFO
Programme 1 Programme 2 Programme 4 Programme 4	Highly motivated team of employees / HR Policies reviewed and implemented where necessary	Inability to manage staff appropriately in terms of best practice, which will impact negatively on the organisational objectives	Lack of skills in terms of the management of staff Majority of staff on contract employment that create uncertainty with regard to job security	High staff turnover Low morale amongst staff Loss of institutional knowledge Failure to meet organisational targets and objectives	ഥ	ო	15	Implementation of Management and Leadership Development Programmes Implement Talent Management and Knowledge Management Programmes Conversion of employee contracts to permanent status	Executive Manager: Corporate Services

21–25 (5) – Very high – Red 16–20 (4) – High – Light orange 11–15 (3) – Medium – Light yellow 6–10 (2) – Low – Sea green 1–5 (1) – Very low – Light blue

ANNEXURE C: RISK MANAGEMENT (CONTINUED)

Risk Owner	Office of CEO	Executive Manager: Corporate Services
Mitigation	Communications and Stakeholder Policy and Strategy approved and implemented Stakeholder mapping process to be done Stakeholder database to be put in place and be populated Undertake regular surveys to identify key stakeholder concerns and address these concerns	Detailed project plans with milestones for operationalisation of RAWIS Proactive engagement with CEOs of radioactive waste generating organisations to timeously obtain waste inventory data to populate RAWIS
Risk Level (Residual Risk)	12	N
Likelihood (1–5)	т	Н
Impact (1–5)	4	N
Consequence	Reputational damage Non-compliance with governance, social investment and ethical leadership in terms of King Code of Conduct Loss of stakeholder confidence damage	Delays in operationalisation of RAWIS Inability to publish a report on the inventory and location of all radioactive waste in the Republic of South Africa. Non-delivery on NRWDI mandate
Root Cause	Comprehensive Communication and Stakeholder Policy and Strategy is lacking Stakeholder mapping has not taken place yet Stakeholder Database yet to be put in place	System unable to maintain the confidentiality, integrity and availability of data lnability to migrate waste data Failure to obtain radioactive waste inventory from waste generators
Risk Description	Negative feedback from stakeholders that will have a profound impact on reputational image of NRWDI	The inability to establish National Radioactive Waste Management Inventory System (RAWIS) that is required to publish a report on the inventory and location of all radioactive waste in the Republic of South Africa
Objective/Target	Good image of NRWDI / 80% positive feedback	Establish National Radioactive Waste Management Inventory System (RAWIS)
Programme	Programme 1 Programme 3 Programme 4	Programme 1 Programme 3 Programme 4

							-		
					Impact	Likelihood	RISK Level (Residual		
Programme	Objective/Target	Risk Description	Root Cause	Consequence	(1-5)	(1-5)	Risk)	Mitigation	Risk Owner
Programme 2	Excellent	Inability to obtain	Lack of suitably	Loss of	4	7	9	Ensure that staff have	000
	radioactive waste	85% compliance	qualified and	stakeholder				IDPs that identify the	
	management	with regards to	experience staff	confidence and				skills gaps and close	
	and disposal on	the annual SHEQ	to maintain	trust				skills gap by re-skilling	
	a national basis /	audit	and ensure					and up skilling of staff	
	85% compliance		compliance with	Increase in					
	with regards to		SHEQ systems	incidents and				Undertake internal	
	the annual SHEQ			accidents				compliance audits	
	audit		Deterioration of						
			SHEQ culture	Suspension of					
				nuclear license					
Programme 2	Environmentally	Inability to	Lack of suitably	Loss of	2	က	9	Ensure that staff have	Executive
	punos	maintain	qualified and	stakeholder				IDPs that identify the	Manager:
	management	180 9001	experience staff	confidence and				skills gaps and close	Corporate
	and disposal of	and 14001	to maintain	trust				skills gap by re-skilling	Services
	radioactive waste	certification	and ensure					and up skilling of staff	
	/ Maintain ISO		compliance with	Adverse audit					000
	9001 and 14001		ISO standards	findings				Undertake internal	
	certification							compliance audits	
			Audits and	Revocation of ISO					
			inspections not	certification by					
			conducted	certification body					
			Non						
			conformances						
			not addressed						

^{21–25 (5) –} Very high – Red 16–20 (4) – High – Light orange 11–15 (3) – Medium – Light yellow 6–10 (2) – Low – Sea green 1–5 (1) – Very low – Light blue

ANNEXURE C: RISK MANAGEMENT (CONTINUED)

Programme	Objective/Target	Risk Description	Root Cause	Consequence	Impact (1-5)	Likelihood (1–5)	Risk Level (Residual Risk)	Mitigation	Risk Owner
Programme 2	Transparent waste disposal site management / 4 Community meetings held	Inability to have quarterly engagements with the Kamiesberg and Vaalputs community as prescribed by NNR	Anti-nuclear sentiments Lack of public participation Lack of publicity and awareness	Non-compliance with Vaalputs nuclear license Reputational damage Poor community realationship with communities	4	м	12	Joint Necsa-NRWDI Management Committee has been established to ensure compliance with Vaalputs license	000
Programme 3	Efficient scientific and technical support for development and maintenance of safety cases /1 R&D report to be submitted	Inability to complete the R&D report	Lack of suitably qualified and experience staff to undertaken R&D Failure to identify R&D areas Lack of funding	Failure to achieve key deliverable Failure to achieve mandate of the Institute	4	4	16	Ensure that staff have IDPs that identify the skills gaps and close skills gap by re-skilling and up skilling of staff Develop R&D plan that will serve as a basis to identify R&D areas	Executive Manager: Corporate Services CTO

Programme	Objective/Target	Risk Description	Root Cause	Consequence	Impact (1-5)	Likelihood (1–5)	Risk Level (Residual Risk)	Mitigation	Risk Owner
Programme 4	Quality Management System / 100% of the QMS completed	Inability to completed QMS	Lack of suitably qualified and experience staff to develop and maintain QMS Audits and Inspections not conducted	Failure to achieve key deliverable Failure to achieve mandate of the Institute Lack of continual improvement	വ	4	20	Ensure that staff have IDPs that identify the skills gaps and close skills gap by re-skilling and up skilling of staff	Executive Manager: Radwaste Compliance Management
			Non- conformances not addressed Poor documentation and record keeping	Delay in obtaining the Vaalputs NIL					

^{21-25 (5) -} Very high - Red 16-20 (4) - High - Light orange 11-15 (3) - Medium - Light yellow 6-10 (2) - Low - Sea green 1-5 (1) - Very low - Light blue

ANNEXURE C: RISK MANAGEMENT (CONTINUED)

		3			Impact	Risk Level Risk Level (Residual	Risk Level (Residual	5 C C C C C C C C C C C C C C C C C C C	
riogiallille	Objective/ larget	RISK Description	ROOL CAUSE	conseduence	(C-T)	(C-T)	NISN)	muganon	NSA OWIE
Programme 4	Nuclear	Delays in the	No NNR approved Failure to achieve	Failure to achieve	Ŋ	വ	25	Submit licensing strategy	Executive
	Installation	NNR approval	licensing strategy key deliverable	key deliverable				and schedule to NNR	Manager:
	Licence / 100%	process for	and schedule in					for approval by 30 April	Radwaste
	of 1 Nuclear	licensing	place	Failure to achieve				2019	Compliance
	Installation	documents		mandate of					Management
	Licence		Lack of a	institute on time				Implement an integrated	
	documents		comprehensive					management system	
	completed		safety case for						
			Vaalputs						
			Lack of an						
			integrated						
			management						
			system						

21-25 (5) - Very high - Red 16-20 (4) - High - Light orange 11-15 (3) - Medium - Light yellow 6-10 (2) - Low - Sea green 1-5 (1) - Very low - Light blue

LIST OF ABBREVIATIONS

-	
APP	Annual Performance Plan
CEO	Chief Executive Officer
CISF	Central Interim Storage Facility
C00	Chief Operations Officer
СТО	Chief Technology Officer
DoE	Department of Energy
DSRS	Disused Sealed Radioactive Sources
GDP	Gross Domestic Product
HLW	High Level Waste
HR	Human Resources
ICT	Information and Communication Technology
IDP	Individual Development Plan
ILW	Intermediate Level Waste
ISO	International Standards Organization
LLW	Low Level Waste
MANCO	Management Committee
MTEF	Medium-Term Expenditure Fund
MTSF	Medium-Term Strategic Framework
NDP	National Development Plan
Necsa	South African Nuclear Energy Corporation
NIL	Nuclear Installation Licence
NNR	National Nuclear Regulator
NRWDI	National Radioactive Waste Disposal Institute
NRWDIA	National Radioactive Waste Disposal Institute Act
OSG	Original steam generators
PESTEL	Political, Economic, Social, Technological, Environmental, Legal
PFMA	Public Finance Management Act
QMS	Quality Management System
R&D	Research and Development
RAWIS	Radioactive Waste Inventory System
RWMF	Radioactive Waste Management Fund
SA	South Africa
SHEQ	Safety, Health, Environment and Quality
SMART	Specific, Measurable, Achievable, Realistic, Time bound
S0	Strategic Objective
SOOG	Strategic Outcome Orientated Goal
SWOT	Strengths, Weaknesses, Opportunities and Threats
VPSIF	Vaalputs Public Safety Information Forum

NOTES	







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