



**MINISTER
WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA**

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1. SUBJECT

Briefing notes for the official commencement of the raising of Clanwilliam Dam on Monday 8th October in fulfilment of the Minister of Water and Sanitation's pronouncement on 5th May 2018.

2. PROJECT BACKGROUND AND DISCUSSIONS

2.1 The Clanwilliam Dam was originally built in 1935 on the Olifants River near the town of Clanwilliam, in the Western Cape Province as part of the Olifants-Doorn River Water Resources Project (ODRWRP). It was raised in the 1960s to its current level with a storage capacity of 128 million m³ primarily for irrigation.

2.2 Chemical attack over the years compromised the structural integrity of the dam wall and prompted the need to rehabilitate the dam wall to avoid risking safety failures. Various dam safety evaluation studies confirmed the need for dam safety rehabilitation. DWS as the owner of this with safety concerns is obliged by the National Water Act (Act No 36 of 1998) to take appropriate measures remedy the situation.

2.3 The remedial options proposed presented a good opportunity to increase the dam storage capacity for improving the assurance of potable water supply, meeting environmental requirements, developing new commercial farmers and socio-economic of the area. The Feasibility study completed in October 2007 found that the raising of the dam wall by 13m was both technically feasible and economically viable.

2.4 Purpose of the Project

2.4.1 The purpose of the raising of the Clanwilliam Dam will improve the safety of the structure to comply with best practice dam safety standards coupled with the increase in annual yield of the dam by 69.5 million m³ of which a portion will be dedicated to assist in the development of resource poor farmers.

2.4.2 The project will also benefit the three municipalities, namely the West Coast District Municipality and the Cederberg - and Matsikama Local Municipalities in terms of additional income due to additional irrigation activities, economic development and also enhance the tourism potential of these municipalities.

2.5 Project Components

The ODRWRP consists of eight components:

- **Component 1:** Realignment of N7 National Road directly affected by the raised dam, now completed and operational.
- **Component 2:** Remedial works to the dam's foundations and raising of dam wall by 13 m.

- **Component 3:** Raising and realignment of portions of the Old Cape Road which will be affected by the raised dam.
- **Component 4:** Raising of Algeria Road crossing over the Olifants River due to the raising of the dam's FSL.
- **Component 5:** Protection of the N7 National Road towards Citrusdal that will directly be affected by the raised dam.
- **Component 6:** Maintenance to farm roads and residences along Renbaan Road directly affected by the raised dam.
- **Component 7:** Upgrading and expansion of conveyance network downstream of Bulshoek Dam. The conveyance system will deal with water allocation reform specifically aimed on resource poor farmers.
- **Component 8:** Other affected infrastructure, including hydropower plant.

The current projected cost estimate for Components 1 to 6 is approximately R3 billion with dam constituting approximately 73% of the cost. The cost estimates for Components 7 and 8 is pending bridging studies which are currently underway.

2.6 Progress to date

- 2.6.1 The *Record of Decision* (ROD) for the project was issued by the Western Cape Provincial Department of Environmental Affairs and Development Planning (DEADP) on 12 May 2009 and subsequent appeals against the project were investigated and dismissed on 22 February 2010. This milestone paves the way for the implementation of the Clanwilliam Dam raising.
- 2.6.2 Ministerial approval for the Raising of Clanwilliam Dam as a government waterworks was published in the Government Gazette of 14 September 2012.
- 2.6.3 The *Record of Implementation Decisions* (RID) which stipulates the project implementation plan and roll out programme was completed and signed by the relevant Departmental Planning and Options Analysis Directorate on 24 April 2013.
- 2.6.4 The agreement signed on 15 June 2011 between the Department and the South African National Road Agency (SANRAL) paved way for the realignment of the portion of the N7 National Road. The realignment commenced on 14 October 2013 and was opened for the public on Monday 29 February 2016.
- 2.6.5 A dedicated team of Engineers within the Department's Chief Directorate: Engineering Services was tasked with the full design studies responsibilities. The use of this internal capability gave opportunity for young and talented engineers to learn from experienced professional while at the same time meeting desirable outcomes economically.
- 2.6.6 Similarly, the Departmental Construction South Unit was deployed to undertake advanced infrastructure works with the objective of allowing the remainder of main engineering works i.e. the construction of the raising of Clanwilliam Dam to be undertaken by the commercial construction contractor. The advanced infrastructure works commenced on 9 June 2014 and were concluded at the end of September 2016.
- 2.6.7 As part of the risk mitigation measures in the procurement and fabrication of pipework and also to avoid unnecessary delays during the project implementation, the Department opted for the use to its internal resources, the CD:CM's Central Construction Workshop (CCW) to manufacture the pipes required for the dam outlet works.

- 2.6.8 As part of the policy framework to promote partnership with the private sector and quality assurance, on 14 December 2014, the Department appointed Bigen Africa (Pty) Ltd to be responsible for the site supervision and contract management for the raising of Clanwilliam Dam as well as providing specialist services from time to time when need arises.
- 2.6.9 Funding constraints impacted negatively on the envisaged project implementation plan and rollout programme hence the delay to commence the raising of the Clanwilliam Dam to date. This situation necessitated the need to develop feasible and innovative ways to bring the project on track again this gave rise to the concept of “***Achieving more with less***”.
- 2.6.10 The “***Achieving more with less***” concept favoured the use of the Departmental Construction Unit South, which has already successfully completed the advance infrastructure works. The planned construction period for the raising of the Clanwilliam Dam wall is four (4) years from this official date of commencement of the raising of Clanwilliam Dam

2.6.11 Environmental Matters

- 2.6.11.1 Zitholele Consulting (Pty) Ltd was appointed by the DWS as the independent Environmental Control Office (ECO) for the raising of Clanwilliam Dam on 14 April 2015 and they are currently on site ensuring that the construction activities are in line with the Environmental legislation requirements.
- 2.6.11.2 During the 2005 Heritage Impact Assessment (HIA) an extensive time-based deep heritage landscape, consisting of rock art, Stone Age sites, historical sites, historical industrial related structures and vistas were identified. To mitigate inundation of these archaeological treasures, a Professional Service Provider (PSP) was appointed to identify the graves, important rock art paintings and other artifacts within the dam basin which will require relocation. Removal of rock-art and grave relocations were finalised in April 2017 and the final reports were submitted to the Department in March 2018.

2.6.12 Land Matters

- 2.6.12.1 There are 229 properties which will be affected by the raising of Clanwilliam Dam. Of these properties, 20 are state owned with the remaining privately owned. 63 of the 209 privately owned properties are located within a section title development and to date 86 properties have been expropriated.

2.6.13 Stakeholder Management

- 2.6.13.1 The social facilitation for the project is aimed at integrating all the socio-economic opportunities emanating from the raising of the Clanwilliam Dam in order to combat unemployment, poverty and inequality. The benefit of this project is that it will spearhead and sustain irrigation development in the supply areas which is critical for the economic growth of the region as a whole.
- 2.6.13.2 Recruitment processes are still to be finalised but the Labour desk is already present at Clanwilliam Project Management Office (PMO). To date the PMO has captured information from 615 people who submitted CV's of which 95% are from Cederberg Municipality.

2.6.14 Communication

A comprehensive communication strategy for the project was drafted and approved.

2.6.15 Clanwilliam Project Management Office

The Minister of Water and Sanitation unveiled the Clanwilliam Project Management Office (PMO) for the project on Saturday 11 July 2015. The PMO will provide communication, project coordination and implementation management as well as monitoring support in the implementation of the raising of Clanwilliam Dam project. The PMO has been operational from July 2016.

2.7 The Socio-Economic Benefits

- 2.7.1 The project has the potential to deal with triple challenges of poverty, unemployment and inequality by creating jobs, promoting and procuring services from enterprises that are Black-owned and managed and providing accredited training and development opportunities for communities.
- 2.7.2 It is estimated that the construction of the project will create employment for about 600 people (professionals, skilled and unskilled). The majority of this workforce would be unskilled workers (about 450) who would be sourced from local communities.
- 2.7.3 The total project, including irrigation development, has the potential to create about 3 800 permanent jobs. This includes direct employment on farms to serve the increased irrigated area and indirect employment in downstream economic activities which will emerge in response to the increased farming activities.

3. IMPLICATIONS

3.1 Personnel

None

3.2 Financial

The Raising of Clanwilliam Dam is estimated to cost ± R2, 2 billion. This amount excludes costs related to:

- Alignment of the N7
- Secondary roads
- Land and Infrastructure
- Construction engineering supervising costs
- Project Management costs
- Heritage expert costs
- Environmental Impact assessment Practitioner
- Environmental Control officer
- Hyrdo-power plant over and above the civil structure
- Communications
- Escalation

An estimated project costs (inclusive of all components) can only be determined accurately on award of the different components to either PSP's or contractors.

3.3 Legal

The legal implementation needs to comply with the environmental authorisation, Occupational Health and Safety and other statutes applicable to the project of this magnitude.

3.4 Communication

A comprehensive communication strategy was approved for implementation but is currently under review.

4. OTHER COMPONENTS CONSULTED

- 4.1 Western Cape Regional Office
- 4.2 Directorate: Options Analysis
- 4.3 Directorate: Land Matters

5. RECOMMENDATION

It is recommended that you take note of the briefing notes on the Olifants-Doorn River Water Resources Project: Raising of the Clanwilliam Dam.

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AUTHORISATION FOR PROCESSING THE MEMORANDUM

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