

Water Utilities Roadshow: Advancing Dam Safety in the context of Climate Change in South Africa

Date: 24 May 2021

Time: 10:00 – 12:00

Venue: Virtual (Zoom)

Introduction

Dams are strategic assets for storing water to support socio-economic development. Their failure often results in the loss of life, extensive damage to the environment and loss of economic activities. For example, a recent partial dam failure in Benoni, South Africa, would have destroyed a major highway interchange, a hospital and downstream housing. In South Africa the Dam Safety Office (within the Department of Water and Sanitation - DWS) is responsible for ensuring the safety of dams as legislated in the Dam Safety Regulations (2012) and the National Water Act (1998). In addition to normal ageing-related deterioration of dams, their safety is threatened by climate change. According to the Department of Environmental Affairs (DEA, now DEFF) the biggest cost increase associated with climate change in the water sector will be in infrastructure damage due to flooding, rising from about R670 million per year to R3.5 billion per year. It is also projected that about 19% of dams in the Dam Safety Office (DSO) register will experience extreme flood events. This added risk requires well considered strategies to minimise it to acceptable limits. This risk is compounded by the lack of qualified manpower to provide technical support for the evaluation and design of remedial actions for dams that are at risk. It is clear from the Dam Safety Office's report from 2011 to 2015, that this problem continues to grow. Owing to the critical nature of dams as national strategic assets, a 'no regret' approach to their safety is necessary. Such an approach should involve key stakeholders, Government Departments, Industry, Academia, etc.

Aims

A Roadshow on dam safety is therefore organised to:

1. share current dam safety challenges in South Africa,
2. explore development and training needs for dam safety professionals,
3. identify research priorities for dam safety, and

4. strengthen collaboration between DWS, SANCOLD, WRC, and other stakeholders to advance dam safety in South Africa.

This session should propose strategies to address dam safety concerns in South Africa.

Target Audience

Departments of Human Settlements, Water and Sanitation, Environment, Forestry and Fisheries, Agriculture, Municipalities (that own dams), COGTA (Disaster Management), organised agriculture (dam owners), South African National Commission on Large Dams (SANCOLD), academia, etc.

| Draft Programme Chair: WRC | | |
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| 10:00 – 10:05 | Introduction and welcome | WRC |
| 10:05 – 10:15 | Perspectives on Dam Safety in South Africa | Leonardo Manus (Acting DDG) |
| 10:15 – 10:25 | Climate Change ‘scenarios’ (LTAS) and infrastructure | DEFF/DWS |
| 10:25 – 10:35 | Dam Safety regulation and management in South Africa | Wally Ramokopa and Comfort Mahlabela (DWS) |
| 10:35 – 10:45 | Dam surveillance for Dam Safety | Louis Hattingh (SANCOLD) |
| 10:45 – 11:00 | Dam safety research and Climate Change | Prof P. Moyo (UCT) |
| 11:00 – 11:20 | Discussions on dam safety and research priorities | All |
| 11:20 – 11:40 | Development and training needs for dam safety professionals | DWS and SANCOLD |
| 11:40 – 11:50 | Strengthening collaboration between DWS, SANCOLD and WRC to advance Dam Safety in South Africa | DWS, SANCOLD and WRC |
| 11:50 – 12:00 | Way forward and closure | DWS/SANCOLD/WRC |
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