



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA



NATIONAL DEVELOPMENT PLAN
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HIGH CONFIDENCE GROUNDWATER RESERVE DETERMINATION STUDY IN THE BERG CATCHMENT (WP11398) PROJECT STEERING COMMITTEE MEETING NO.1 – PROJECT BACKGROUND

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Date: 02 August 2022



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LEGAL MANDATE

- Protection of water resources is a requirement by Chapter 3 of the National Water Act (No. 36 of 1998) (NWA).
- The measures for the protection of water resources include:
 - setting Reserve,
 - classification of water resources, and
 - determination of Resource Quality Objectives.
- The Directorate - Reserve Determination, is tasked with the responsibility of coordinating all Reserve determination studies, which have priority over other uses in terms of the NWA and are determined before water use license applications are to be processed.
- There is a need to undertake a detailed/comprehensive groundwater Reserve determination study due to mainly;
 - There is an increasing number of applications for water use licenses with high impact, which makes it impossible to evaluate those applications using low confidence (desktop) reserves,
 - Associated impacts that the proposed developments might have on the availability or quality of water,
 - WRC and RQO's determined and gazetted, urgent need for a comprehensive Reserve to complete the RDM process.

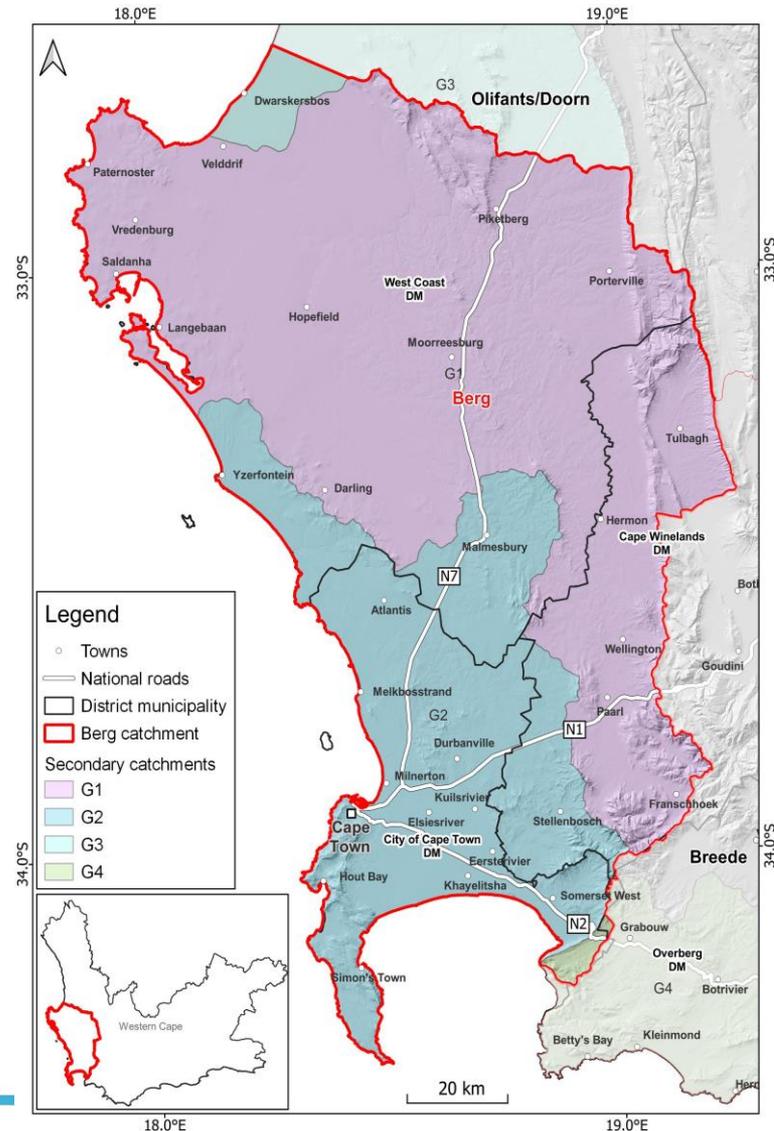
THE RESERVE

- The Reserve – (i.e. water ‘set aside’ to provide for the basic human needs and to sustain water ecosystems) is the only right to water in the NWA –
 - therefore, it has priority over all other water use and should be set aside as soon as the class is determined for each water resource.
 - this is to say that the amount of water required for the Reserve must be met before water resources can be allocated to other water users.

STUDY AREA

- **Location of the Study Area**

- Berg catchment is located on the south-western corner of SA & falls entirely within the Western Cape Province.
- It consists of secondary drainage regions, G1 & G2, and quaternary catchments G30A in the north and G40A in the south.
- Divided into three sub-areas: Upper Berg, Lower Berg, and Greater Cape Town.



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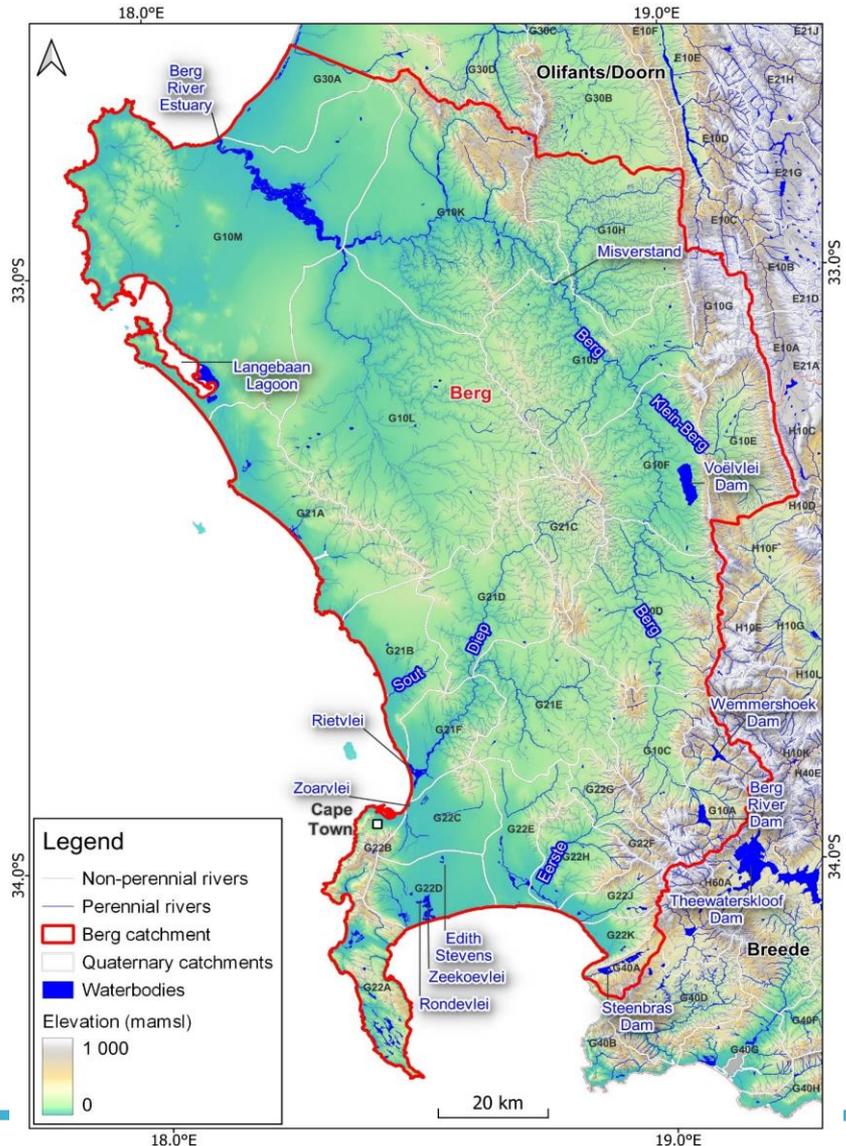
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STUDY AREA

■ Surface Water

- Berg River is the largest river in the catchment, runs approximately 285 km & drains into St Helena Bay then discharges into the Atlantic Ocean.
- The catchment is predominately supplied with water via Western Cape Water Supply Systems comprising of six dams (Upper & Lower Steenbras, Theewaterskloof, Voevlei Wemmershoek & Berg River).
- 22 estuaries in the catchment including the Langebaan Lagoon estuary which receives groundwater.



STUDY OBJECTIVES

- The primary objective of this study is to determine a high confidence groundwater Reserve requirements (quantity and quality) to satisfy the basic human needs and to protect aquatic ecosystems in different priority water resources within the Berg catchment,
- Determination of GW allocation that can be abstracted from the GRU without impacting the ability of the GRU to sustain the Reserve,
- Quantification of groundwater contribution to baseflow (delayed interflow & gw recharge),
- Identification of groundwater-dependent ecosystems (rivers, wetlands & estuaries) & the impact on the aquatic ecosystem, and
- Analysis of groundwater quality & its vulnerability (quality component).

SCOPE OF THE PROJECT

Project inception

Review of water resources
Information and data gathering

Groundwater Reserve
determination

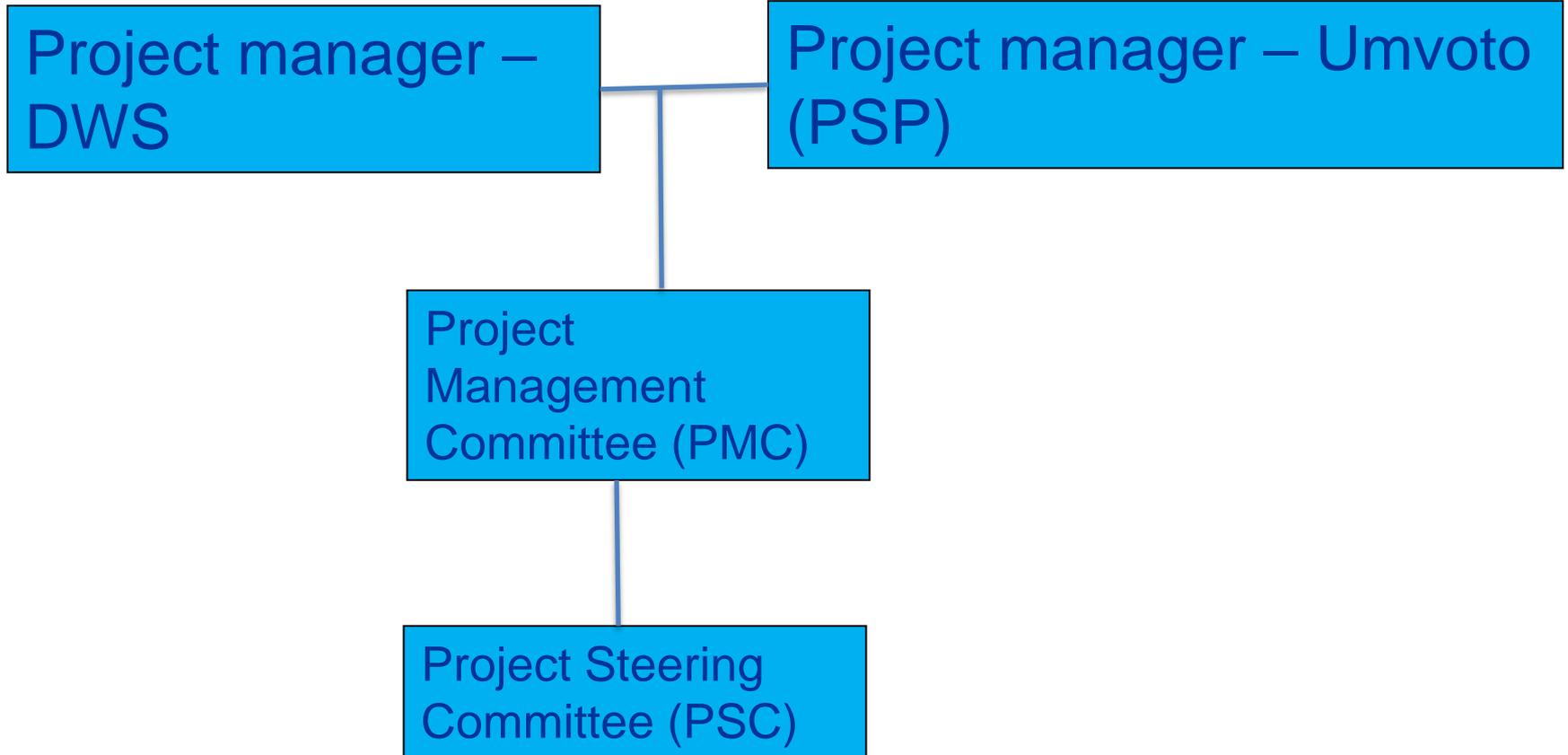
Study management and liaison

Capacity building

Reporting

Project closure

Project governance



OBJECTIVES OF THE PSC

- To provide strategic direction and guidance of the study processes
- To provide technical input and support to the study processes
- To provide comments on the reports for the completed project milestones.
- Represent stakeholder bodies and provide feedback regularly

ROLES & RESPONSIBILITIES OF THE PSC MEMBERS

- Attendance of PSC meetings on a voluntary basis,
- Assist in converting study into practical solution,
- Facilitate sharing of information and data,
- Promote linkages with other stakeholders,
- Provide strategic support and guidance, and
- Acting as advocates of the study outcomes

CONCLUSION

The study's output should contribute to the following:

- Design an appropriate monitoring programme for GRU's in the Berg catchment
- Gazette and implement the Reserve based on the results of the study
- Support the gazetted Water Resource Classes and associated RQOs in completing the RDM process

CONTACTS

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- The following webpage provides access to study deliverables/documents:

<https://www.dws.gov.za/RDM/Status.aspx>