



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

DETERMINATION OF ECOLOGICAL WATER REQUIREMENTS FOR SURFACE WATER (RIVERS, ESTUARIES AND WETLANDS) AND GROUNDWATER IN THE LOWER ORANGE WMA

AN INTRODUCTION TO THE STUDY

PSC Meeting Number 1
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23 June 2016

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PRESENTATION OUTLINE

1. Background
2. Study area
3. Objectives of the Study
4. Study Motivation
5. Overview of Deliverables
6. Study Period
7. Previous Reserve related studies

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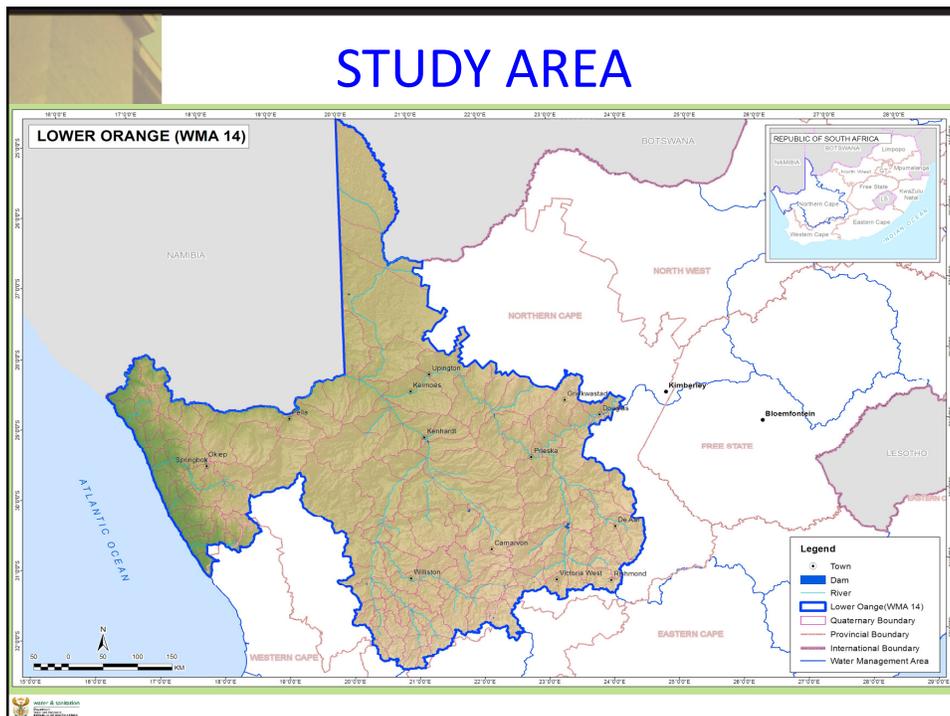
BACKGROUND

- Chapter 3 of the National Water Act (Number 36 of 1998) provides for the protection of all water resources.
- Reserve determination for significant water resources is one of the mechanisms.
- The Reserve determination mechanism aims at ecological protection of water resources and provision of Basic Human Needs (BHN)

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STUDY AREA



OBJECTIVES OF THE STUDY

- Determination of quantity and quality component of the groundwater component of the Reserve.
- Determination of quantity and quality component of the Reserve for rivers at various EWR sites.

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- Determination of quantity and quality component of the Reserve for priority wetlands, pans and lakes.
- Determination of quantity and quality component of the Reserve for estuarine freshwater requirements.

STUDY MOTIVATION

- Study was mainly driven by proposed hydraulic fracturing to be undertaken in the WMA.
- Dependence on groundwater by many users in the WMA.
- Various water use licence applications e.g. An influx of energy related applications.

OVERVIEW OF DELIVERABLES

- Inception Report (31 December 2015) ✓
- Resource Unit Report (31 March 2016) ✓
- Desktop EWR and groundwater use (30 June 2016)
- Wetland Eco classification Report (30 September 2016)
- Wetland EWR and Groundwater EWR Report (31 Dec 2016)

OVERVIEW OF DELIVERABLES

- Ecological and estuary consequences of scenarios Report (31 March 2017)
- Consequences of scenarios Report (30 June 2017)
- Ecospecs & Monitoring Report, Close Out and Main Report (14 October 2017)

STUDY PERIOD

- Project duration is 2 years
- The study was initiated on the 15th October 2015 and expected to be completed on the 14th October 2017
- Rivers for Africa eFlows Consulting was appointed to assist the DWS in undertaking the study

PREVIOUS RESERVE RELATED STUDIES

- Reserve study is building on previous studies initiated by the Orange-Senqu River Commission (ORASECOM)
- Gaps not addressed by the previous studies will be dealt with
- For rivers - the previous studies concentrated along the main Orange river stem at high confidence

PREVIOUS RESERVE RELATED STUDIES

- Orange River estuary at Alexander Bay was also covered in the previous study. Other estuaries in the WMA were not dealt with.
- Only wetlands along the main Orange River were covered. The rest of the catchment will be covered in this study.
- Groundwater was not covered by previous studies.

THANK YOU!!



ANY QUESTIONS??

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