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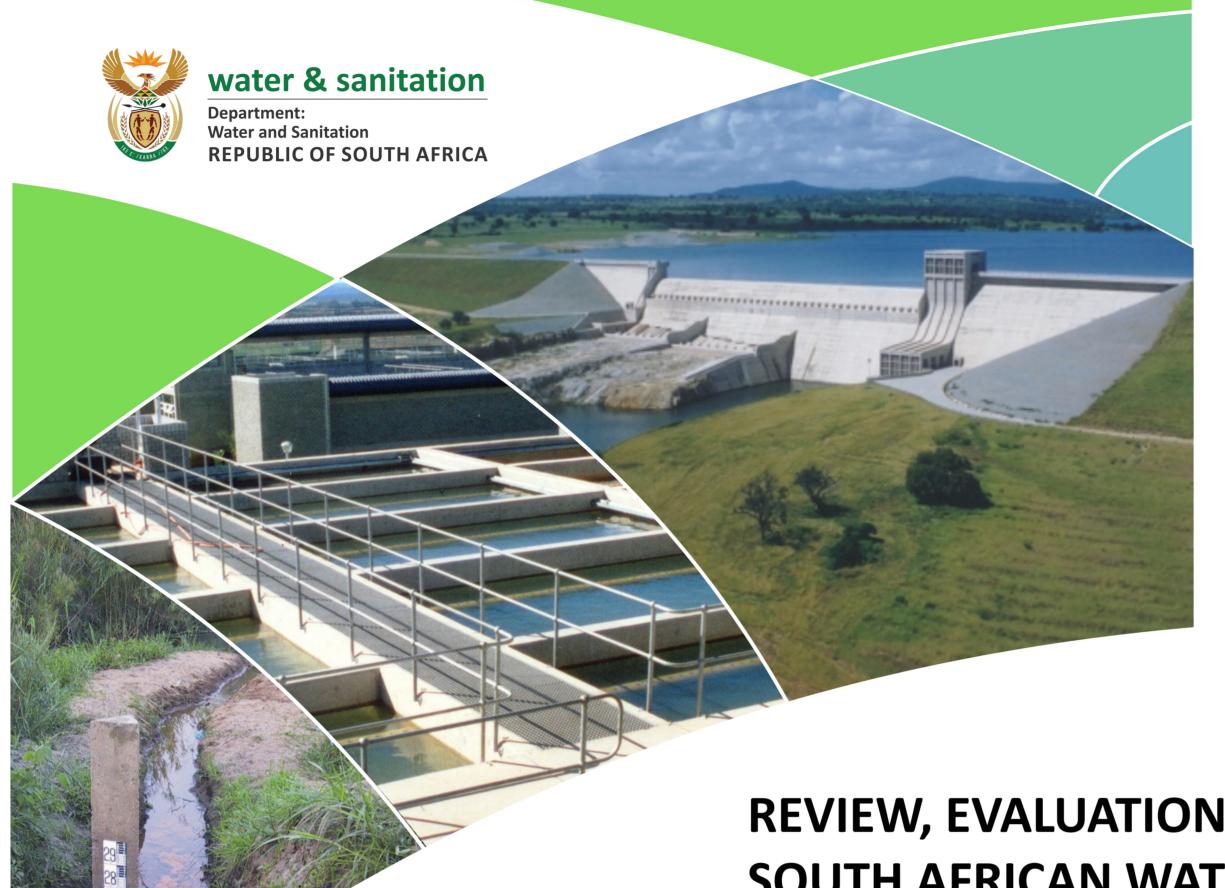
Network Inventory Map Book 7: Mzimvubu-Tsitsikamma

South Africa

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REVIEW, EVALUATION AND OPTIMISATION OF THE SOUTH AFRICAN WATER RESOURCES MONITORING NETWORK

Network Inventory

VOLUME 2: MAP BOOK

DRAFT

MARCH 2015

Obtainable from

Chief Directorate: Water Information Management

Department: Water and Sanitation

Private Bag X313

PRETORIA

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PREFACE

The Department of Water and Sanitation (DWS) is the custodian of ten national monitoring programmes. The overall aim of this project is to undertake an evaluation of each monitoring network, in its present condition, and to redesign and realign the network based on scientific analysis and the strategic and management objectives of DWS and of the country as a whole. The water resources monitoring network will be optimised to ensure sustainable, relevant and up-to-date data of an acceptable quality

This Network Inventory Task focussed on the production of maps to illustrate the spatial distribution of the existing monitoring stations for these ten monitoring programmes. The deliverable from this Network Inventory task, together the User Requirements Task will be used to identify shortcomings in the current networks.

The metadata from each of the ten monitoring networks was analysed and descriptive labels were developed for each station to describe the temporal information (record period), open/closed, completeness, etc.

This task was undertaken by a team of specialists, one for each of the following categories of data:

- Surface water quantity.
- Surface water quality.
- Groundwater levels and quality.
- Biophysical Data
- Hydro-meteorology

This was followed by the development of five thematic maps with information on the spatial distribution of these ten monitoring points per new Water Management Area (WMA) have been compiled. Even though other institutions in South Africa are also collecting surface water, groundwater, Hydro-meteorological, water quality, eco-health, mostly for their own interests and applications, only the Hydro-meteorological networks of ARC and SAWS data were included on these maps since these data are used daily by DWS. Due to an abundance of groundwater stations in a number of WMA's, station numbers, rather than the detailed developed labels, were adopted for labelling the groundwater maps. The detailed groundwater labels are included as Appendix A.

The thematic Maps produced per nine WMA's are as follows:

A2-size maps were developed for the nine new WMAs per data category, as follows:

- 1) Limpopo WMA
- 2) Olifants WMA
- 3) Inkomati-Usuthu WMA
- 4) Pongola-Mtamvuna WMA
- 5) Vaal WMA
- 6) Orange WMA
- 7) Mzimvubu-Tsitskamma WMA
- 8) Breede-Gouritz WMA
- 9) Berg-Olifants WMA.

Other products developed as part of this Task are data catalogues and Google Earth KMZ-coverages which are very useful to the DWS, external users and to the project team during the new network design.

Subsequent to the completion of the Network Inventory and User Requirements tasks, the Data integrity assessment task will continue to determine the quality of the available data.

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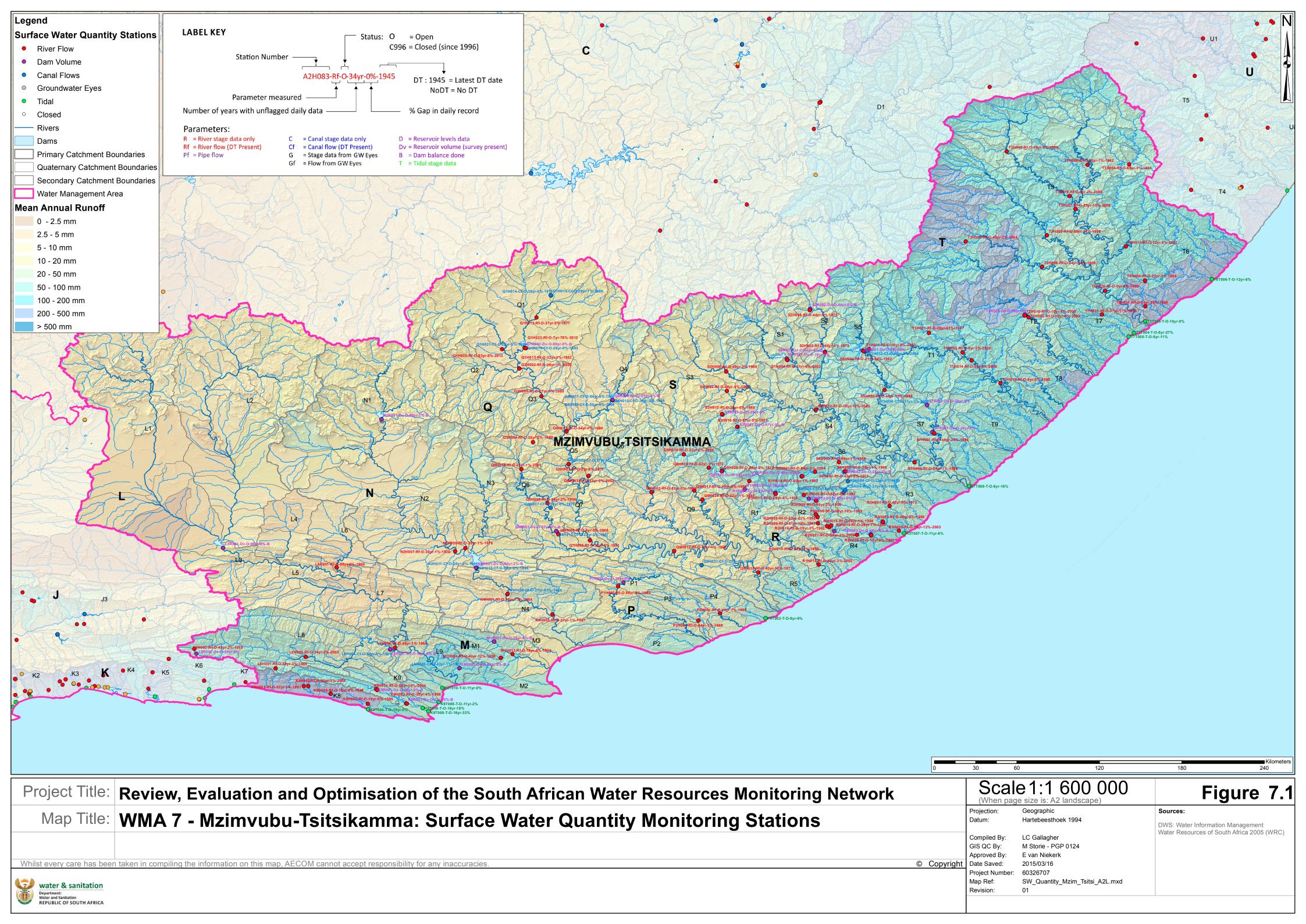
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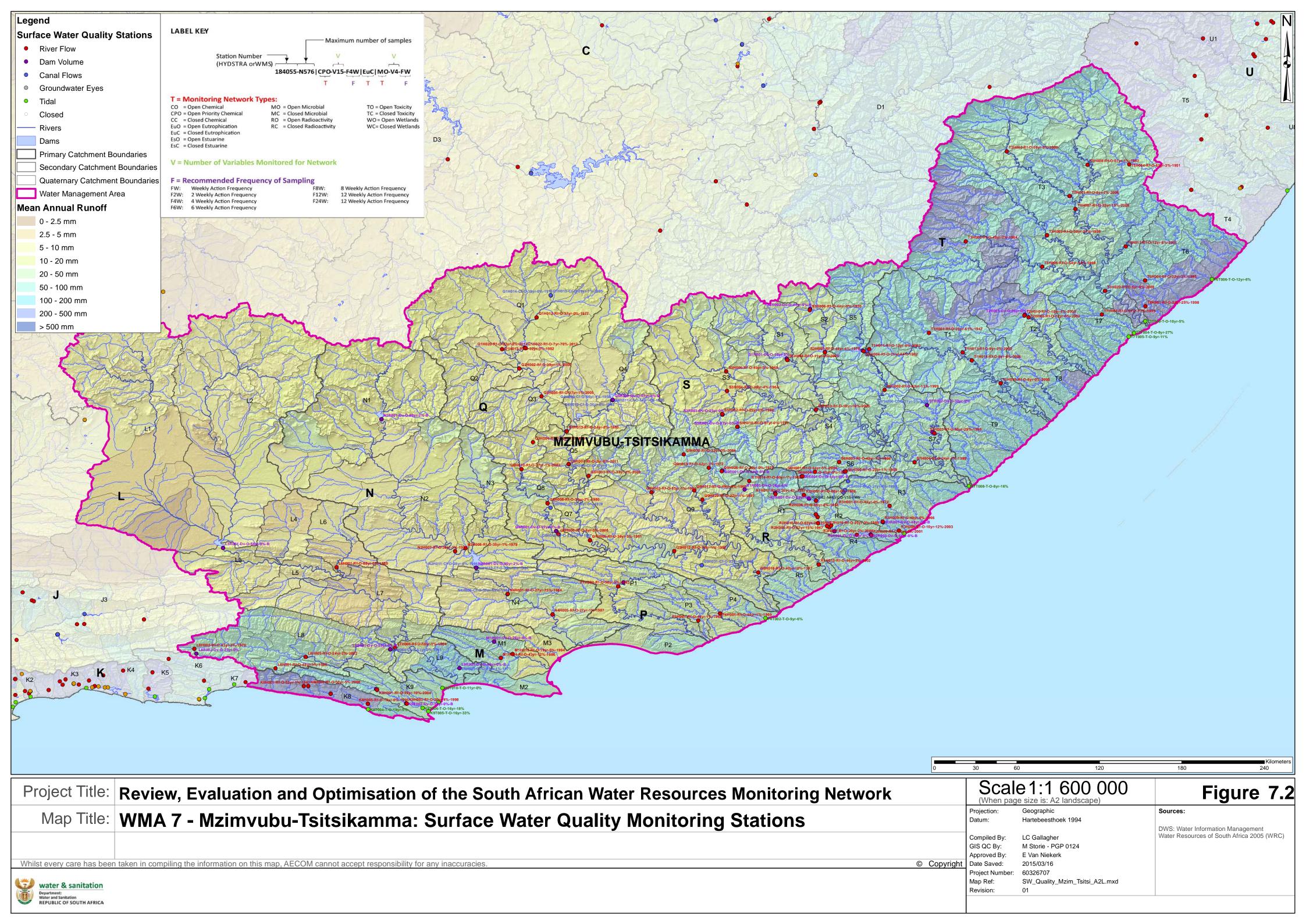
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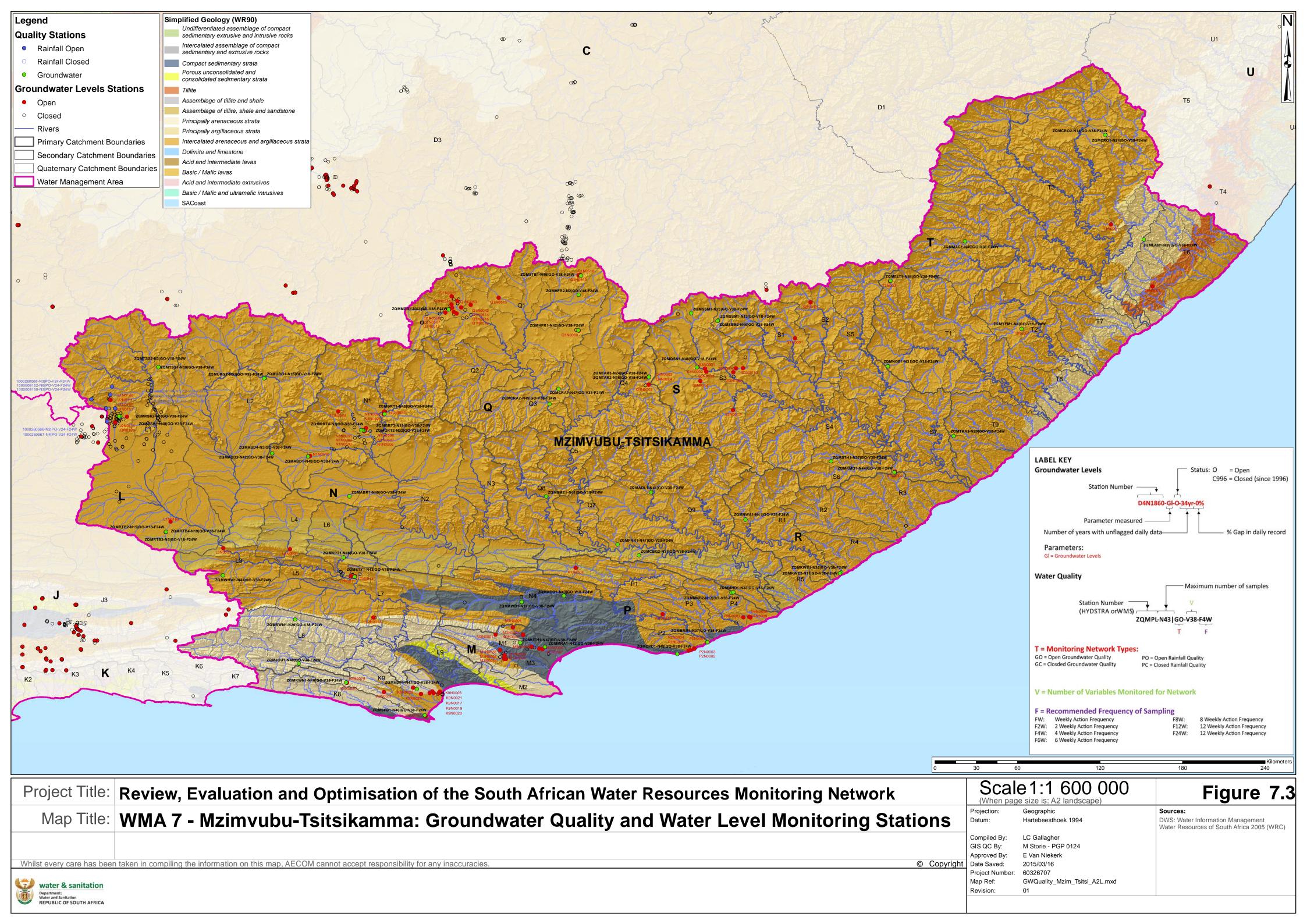
Appendix A

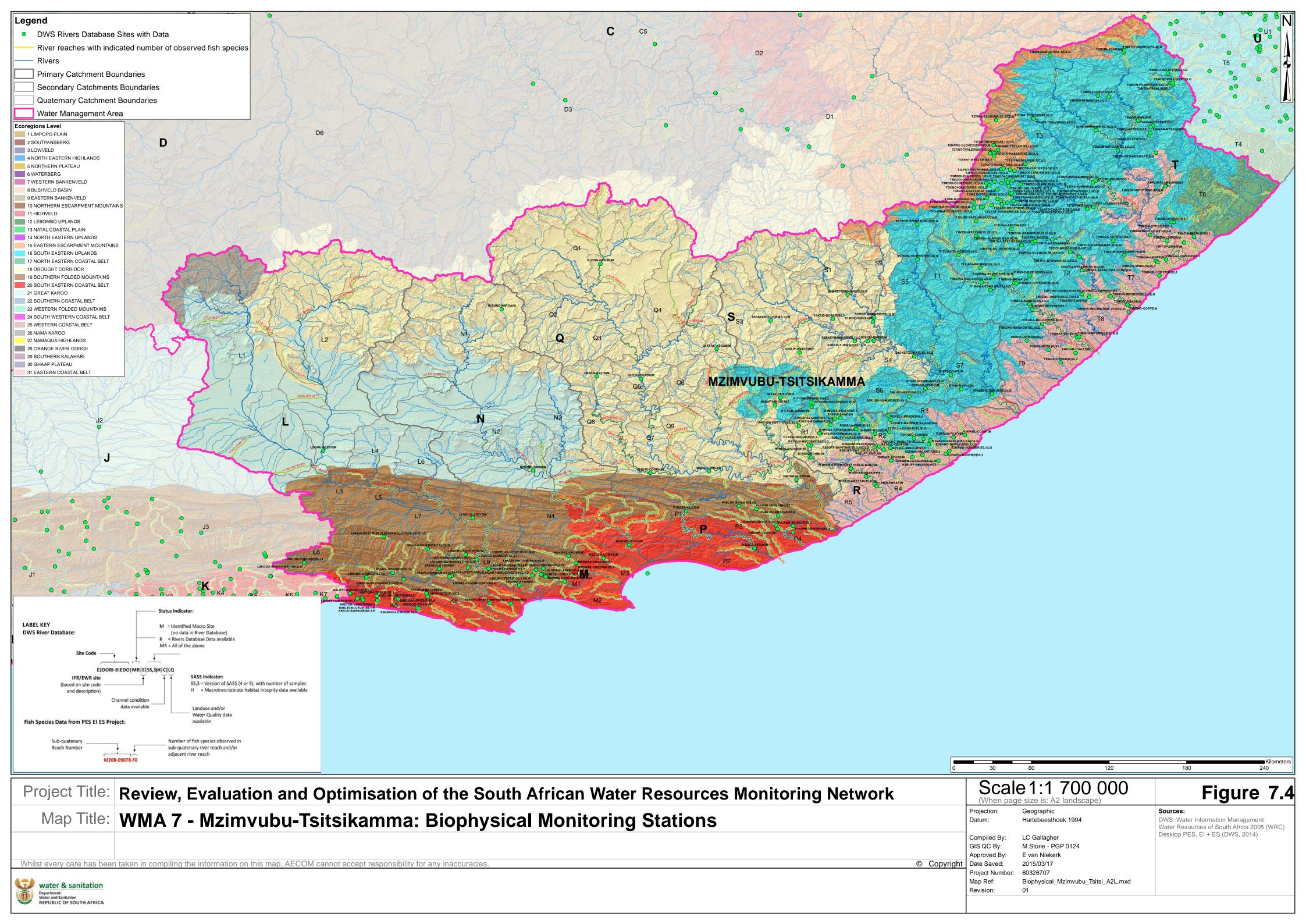
Detailed Groundwater Level and Quality Monitoring Station Labels

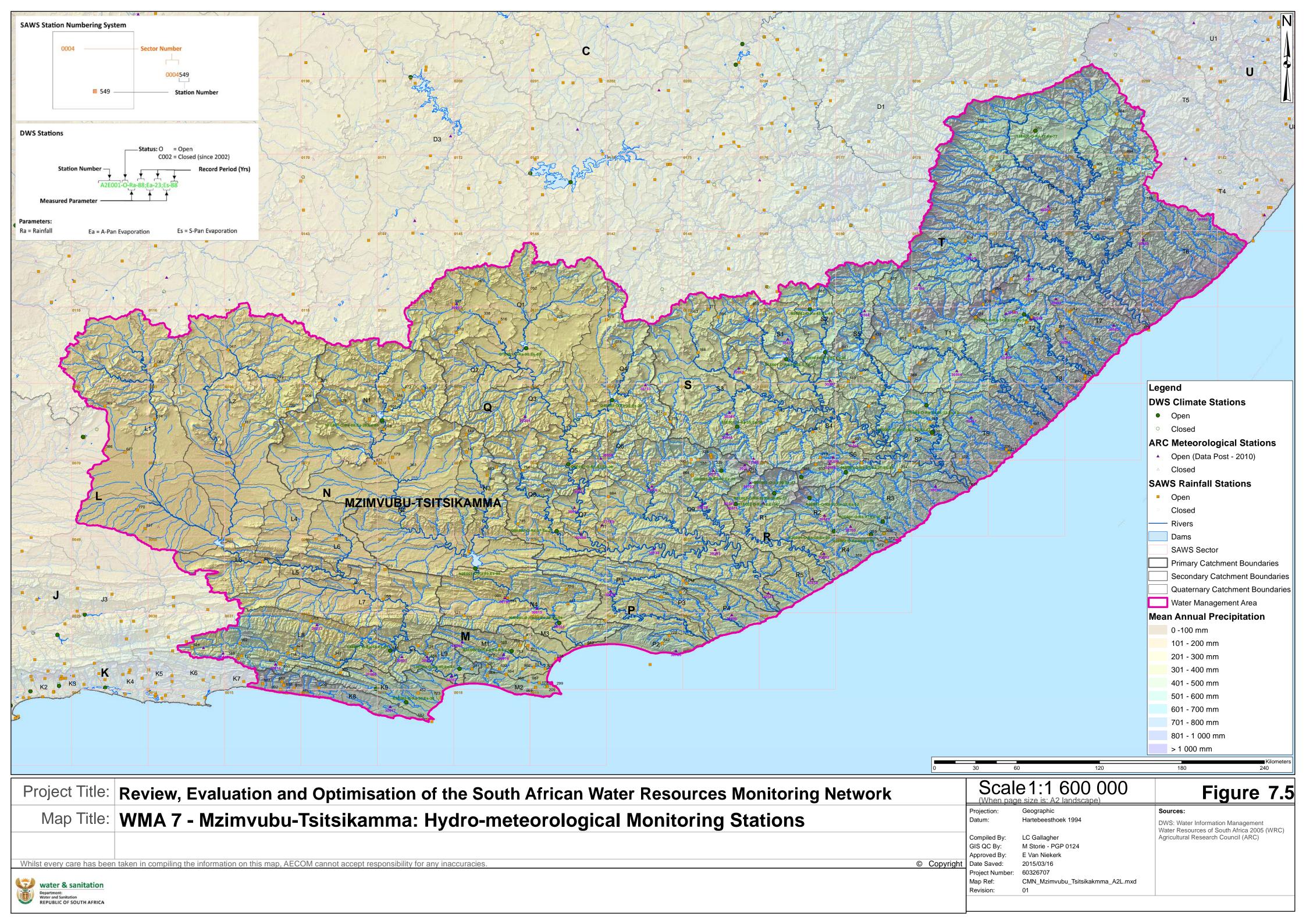
WMA 7: Mzimvubu-Tsitsikamma











APPENDIX A: Detailed Groundwater Level and Quality Monitoring Station Labels

WMA 7: Mzimvubu-Tsitsikamma

WMA 7 - Mzimvubu-Tsitsikamma: Groundwater Level and Quality Monitoring Stations

WMA 7 - N	Vizimvubu-Tsitsikamma: Groundwater Level and	d Quality N	/lonitorin	g Stations
Station	Name	Catchment	Province	Label
T3N0001	Ntabankulu	T33H	EC	T3N0001-Gl-O-1yrs-11%
T6N0001	Lusikisiki	T60F	EC	T6N0001-Gl-O-2yrs-9%
Q1N0518	Steynsburg	Q12B	EC	Q1N0518-Gl-O-4yrs-11%
Q1N0519	Steynsburg	Q12B	EC	Q1N0519-Gl-O-4yrs-8%
Q1N0042	Bultfontyn Ged. Matjieskloof - Middelburg	Q14B	EC	Q1N0042-Gl-O-36yrs-3%
Q1N0050	Grootfontein - Middelburg	Q14	EC	Q1N0050-GI-O-55yrs-0%
Q1N0507	Middelburg	Q14B	EC	Q1N0507-Gl-O-48yrs-0%
Q1N0508	Middelburg Munisipaliteit	Q14B	EC	Q1N0508-GI-O-27yrs-1%
Q1N0511 Q1N0514	Middelburg Middelburg	Q14B Q14B	EC EC	Q1N0511-Gl-O-1yrs-12% Q1N0514-Gl-O-1yrs-2%
Q1N0515	Middelburg	Q14B	EC	Q1N0515-Gl-O-1yrs-2%
Q1N0516	Middelburg	Q14B	EC	Q1N0516-Gl-O-1yrs-2%
Q1N0517	Middelburg	Q14B	EC	Q1N0517-Gl-O-1yrs-2%
T1N0001	Elliot	T11A	EC	T1N0001-GI-O-2yrs-10%
Q1N0513	Middelburg	Q11D	EC	Q1N0513-Gl-O-1yrs-2%
S2N0001	Indwe	S20A	EC	S2N0001-Gl-O-2yrs-20%
Q1N0512	Middelburg	Q14C	EC	Q1N0512-Gl-O-1yrs-2%
T2N0001	Yersey Farm	S20C	EC	T2N0001-GI-O-8yrs-0%
Q1N0060	Struys Vogel's Leegte Ged. Avondglooi	Q13A	EC	Q1N0060-Gl-O-30yrs-1%
S1N0001	Lady Frere	S10G	EC	S1N0001-Gl-O-2yrs-31%
S3N0001	Turveys Post	S31E	EC	S3N0001-Gl-O-34yrs-1%
S3N0002	Lehmans Drift	S31E	EC	S3N0002-GI-O-34yrs-0%
S3N0003	Hopefield	S31E	EC	S3N0003-Gl-O-34yrs-0%
S3N0010	Queenstown Commonage	S31F	EC	S3N0010-Gl-O-34yrs-2%
S3N0016	Queenstown	S31F	EC	S3N0016-Gl-O-1yrs-15%
Q4N0002	Tarkastad Municipality	Q41C	EC	Q4N0002-Gl-O-30yrs-1%
Q4N0003	Tarkastad Golden Valley	Q41C	EC	Q4N0003-Gl-O-22yrs-0%
Q4N0004	Tarkastad Municipality at Golden Valley Nr. 129	Q41C	EC	Q4N0004-GI-O-6yrs-5%
S3N0008	Galla Hill Ged. Peninsula	S31G	EC	S3N0008-GI-O-34yrs-0%
N1N0021	Graaff Reinet Allotment Area	N11B	EC	N1N0021-Gl-O-31yrs-0%
N1N0022	Graaff-Reinet Allotment Area	N11B	EC	N1N0022-Gl-O-30yrs-0%
S3N0014	Thornhill at Queenstown Grasrand - Graaff Reinet	S32C	EC	S3N0014-GI-O-8yrs-5%
N1N0025 N1N0091	Grasrand - Graaff Reinet	N13A N13A	EC EC	N1N0025-Gl-O-29yrs-0% N1N0091-Gl-O-25yrs-1%
N1N0091	Grasrand - Graaff Reinet	N13A	EC	N1N0092-GI-O-25yrs-0%
N1N0503	Grasrand - Graaff Reinet	N13A	EC	N1N0503-GI-O-21yrs-0%
N1N0505	Grasrand (Mimosadale)	N13A	EC	N1N0505-GI-O-21yrs-1%
N1N0506	Grasrand - Graaff Reinet	N13A	EC	N1N0506-Gl-O-24yrs-0%
N1N0507	Grasrand - Graaff Reinet	N13A	EC	N1N0507-Gl-O-24yrs-1%
J2N0109	Plaatdoorns	L11F	WC	J2N0109-Gl-O-29yrs-0%
J2N0111	Rhenosterkop	L11F	wc	J2N0111-Gl-O-30yrs-0%
J2N0114	Speelmans Kuil	L11F	WC	J2N0114-Gl-O-10yrs-0%
L1N0146	De Hoop	L11F	WC	L1N0146-Gl-O-9yrs-0%
L1N0150	De Hoop	L11F	wc	L1N0150-Gl-O-9yrs-0%
L1N0151	Rhenosterkop	L11F	WC	L1N0151-Gl-O-9yrs-0%
N1N0504	Grasrand - Graaff Reinet	N13B	EC	N1N0504-Gl-O-21yrs-1%
S3N0017	Whittlesea	S32G	EC	S3N0017-Gl-O-2yrs-25%
S7N0002	Komga Minicipality	S70A	EC	S7N0002-GI-O-29yrs-0%
N1N0510	Aberdeen	N14B	EC	N1N0510-Gl-O-1yrs-10%
L1N0168	Rietbron	L12C	EC	L1N0168-GI-O-1yrs-0%
L4N0001	Miller Beervleidam	L40B L30C	EC EC	L4N0001-GI-O-2yrs-0%
L3N0001 P1N0504	Kuduskop	P10C	EC	L3N0001-GI-O-4yrs-4% P1N0504-GI-O-5yrs-13%
L7N0013	Steytlerville	L70D	EC	L7N0013-GI-O-2yrs-0%
L7N0013	Steytlerville	L70B	EC	L7N0013-GI-O-2yrs-0%
L7N0011	Steytlerville	L70B	EC	L7N0011-GI-O-2yrs-0%
P1N0502	Birchleigh Ged. Eschol	P10F	EC	P1N0502-GI-O-19yrs-1%
P4N0008	Port Alfred	P40D	EC	P4N0008-GI-O-1yrs-23%
P4N0009	Port Alfred	P40D	EC	P4N0009-GI-O-1yrs-13%
P4N0003	Grove Hill - Bathurst	P40C	EC	P4N0003-GI-O-35yrs-1%
M3N0002	Prentice Kraal PK 7	M30	EC	M3N0002-Gl-O-46yrs-13%
M3N0003	Prentice Kraal PK 22	M30	EC	, M3N0003-Gl-O-46yrs-12%
M3N0004	Elandshoorn	M30	EC	, M3N0004-Gl-O-46yrs-1%
M3N0005	Rietheuvel - Uitenhage	M30	EC	M3N0005-Gl-O-35yrs-6%
M1N0003	Mimosadale West Uitenhage	M10C	EC	M1N0003-Gl-O-43yrs-0%
M1N0004	Wincanton Kloof Ged. Wincanton	M10C	EC	M1N0004-Gl-O-37yrs-0%
M1N0034	Kruis Rivier Ged. Springfield - Uitenhage	M10C	EC	M1N0034-Gl-O-31yrs-0%
M1N0036	Kruis Rivier KR 16 - Uitenhage	M10C	EC	M1N0036-Gl-O-26yrs-1%
M1N0038	Kruis Rivier _ Uitenhage	M10C	EC	M1N0038-Gl-O-21yrs-2%

WMA 7 - Mzimvubu-Tsitsikamma: Groundwater Level and Quality Monitoring Stations

Station	Name	Catchment	Province	Label
M3N0001	Prentice Kraal Ged. Rondalia	M30	EC	M3N0001-GI-O-49yrs-2%
M3N0006	Welbedachtsfontein Ged. Greenhills Uitenhage	M30	EC	M3N0006-GI-O-46yrs-1%
M3N0007	Welbedachtsfontein Ged. Dalby Park - Uitenhage	M30	EC	M3N0007-GI-O-12yrs-8%
P2N0001	Boesmans River Mouth	P10	EC	P2N0001-GI-O-28yrs-2%
P2N0002	Cannon Rocks	P20A	EC	P2N0002-GI-O-1yrs-8%
P2N0003	Cannon Rocks	P20A	EC	P2N0003-GI-O-1yrs-0%
P2N0004	Cannon Rocks	P20A	EC	P2N0004-GI-O-1yrs-0%
P2N0005	Cannon Rocks	P20A	EC	P2N0005-Gl-O-1yrs-10%
K9N0006	Jeffreys Bay Municipality	K90G	EC	K9N0006-Gl-O-29yrs-1%
K9N0017	Jeffreys Bay Municipality	K90G	EC	K9N0017-Gl-O-21yrs-0%
K9N0029	Kareedouw Municipality	К90В	EC	K9N0029-GI-O-23yrs-1%
K9N0030	Kareedouw Ptn. Kareedouw Municipality	K90B	EC	K9N0030-GI-O-23yrs-3%
K9N0019	Mentors Kraal	K90	EC	K9N0019-Gl-O-21yrs-2%
K9N0020	Mentors Kraal	K90F	EC	K9N0020-Gl-O-21yrs-2%
K9N0021	Farm 337 Ged. The Burns	K90F	EC	K9N0021-Gl-O-21yrs-2%
K9N0024	Farm 371 Ged.Kromrivier Staatsbos(Kareedouwberg)	K90F	EC	K9N0024-Gl-O-21yrs-0%
K9N0028	Erf 2 Ged. Kruisfontein	K90F	EC	K9N0028-Gl-O-23yrs-0%
K9N0011	Jeffreys Bay Municipality	K90D	EC	K9N0011-Gl-O-21yrs-0%
K9N0025	Ongegunde Vryheid Ged. St.Francisbay	K90E	EC	K9N0025-Gl-O-24yrs-1%