Appendix 5

Rivers and Towns

APPENDIX 5: RIVERS AND TOWNS

Quaternaries	Rivers / river reaches	Towns / settlements
Upper Olifants (quats E10A – E10K)		
E10A	Upper Olifants River	Visgat, Sandvlakte
E10B	Upper Olifants River, Dwars River	Boskloof, Blomhof
E10C	Ratel River, Upper Olifants River	Grootfontein
E10D	Upper Olifants River	Breekarm, Thee River
E10E	Upper Olifants River	Citrusdal, Driefontein
E10F	Upper Olifants River, Palmietfontein River, Heks River	Brakfontein, Kweekkraal
E10G	Olifants River, Rondegat River	Holfontein, Langfontein
E10H	Jan Dissels River	Bovlei, Dwars River
Lower Olifants (quats E33G, E33H, E24M, E10K, E10J)		
E33G	Olifantsriver, Klein River, Troe-troe River	Vredendal, Klawer
E33H	Olifantsriver, Jaagleegte, Droëkraal's River	Lutzville, Ebenhaezer, Papendorp, Monte Carlo, Tahiti
E24M	Doring River, Olyvenhouts River	De Lille, Ribbokfontein, Hardevlak, Taaibosdam
E10J	Olifants River, Kliphuis River, Seekoeivlei River	Clanwilliam, Tierkloof, Nortiershof
E10K	Olifants River, Netvlei River	Voorspoed, Doornkloof
Doring (quats E24A – L, E40A – D, E22A – E22G, E23A – K)		
E24A	Tra-tra River, Dassieboskloof River, Eselbank River	Eselbank, Wuppertal, Vaalfontein
E24B	Matjiesfontein River, Tra-tra River,	Prins se Kraal, Hartsvlak, Beukeskraal
E24C	Bos River, Biesra River, Matjieskloof 's River, Oliewenbos' River	Annex, Dagbreek, Dassieberg, Ratelklip
E24D	Bos River, Gannakuils River, Klipbankshoek River	Witvlak, Dorsdam, Bo-Stompiesfontein, Varsfontein
E24E	Rietpoort River, Wolf River, Kliprug River, Twakboomleegte	Weltevreden, Karringmelkplaat
E24F	Bloukrans River, Draaikraal River, Nooiens River	Kleinhoek, Wolf River Vlakkraal
E24G	Wolf River, Soutpans River, Karmoe River	Karmoe, Kalgat, Spaarbos, Vryheid
E24H	Doring River	Reenen, Twee Damme, Onder-Stompiesfontein
E24J	Doring River, Avontuur River, Putslaagte, Duiwelsleegte, Biedou River	Mietjiesfontein, Middelberg, Kleinhoek, Kanetfontein, Hoenderfontein
E24K	Doring River, Brak River, Sout River, Paalkraal River	Moedverloor, Sonderwaterkraal, Lokenburg
E24L	Brandewyn River, Kraaiboslaagte	Teelkliphuis, Sandkraal, Boontjieskloof, Alpha
E40A	Oorlogskloof River, Droë River, Kieskie River, Vlakfontein's River, Kliprug's River, Brakfontein's River	Brakfontein, Hope Valley, Vlakfontein, Kieskie, Klipkraal
E40B	Oorlogskloof River, Droëboom's River, Agterplaas River	Oorlogskloof, Fairview, Platberg, Doega
E40C	Oorlogskloof River, Vaaldam se Laagte, Rietvlei River	De Laande, Nieuwoudtville, Keiserfontein
E40D	Oorlogskloof River, Koebee River, De Hoop's River, Kleigats River, Kelderfontein River	Schoongezicht, Daggafontein, De Hoop, Erensfontein, Klipheuwel

Quaternaries	Rivers / river reaches	Towns / settlements
E22A	Groot River, Kraai River, Patats River, Wolwe River	Seekoeigat, Rietkloof, Snyderskloof
E22B	Groot River, Adamskraal River, Muishond River, Smitswinkel River	Perdekraal, Bantamsfontein, Brandeberg
E22C	Droëlands River, Doring River	Swartkop, Kommando, Rooifontein, Bo-Bos
E22D	Doring River, Karee River, Kolkies River, Bulsjaagte	Sadawa, Platfontein, Vaalkloof
E22E	Groot River, Doring River, Droëlaagte, Ongeluks River, Beukesfontein River	Damskraal, Mowardouwskloof, Kareekolk
E22F	Doring River	Gansfontein, Matjiesfontein, Doornfontein
E22G	Doring River, Brakfonteinspruit	Brakfontein, Rouxvlei
E23A	Tankwa River, Kareekloof River, Wilgebos River, Kleinpoorts River	Tuinplaas, Langhuis, Wilgebos, Boesmanshoek
E23B	Tankwa River, Witfontein se Laagte, Bobbejaankransivier, Windheuwels River	Pruimboshoek, Waterval, Ashoek, De Hoop
E23C	Agterste River, Brak River, Houthoek River	Jordaanskraal, Dagbreek, Houthoek
E23D	Tankwa River, Modderfontein, Karee River, Kranskraal River	Olivierskraal, Diepkloof, Welgemeen, Blouheuwel
E23E	Renoster River	Platfontein, Brakfontein se Kop, Uintjiesbos
E23F	Tankwa River	Middeldrif, Oubaaskraal
E23G	Ongeluks River	Sandfontein, Bloukrans, Jukfontein
E23H	Gemsbok River, Brak River	Gemsbokfontein, Newefontein, Popeliersbos
E23J	Ongeluks River, Sandlaagte, Tandskoonmaak se laagte	Die Bos, Langdoring, Stofbakkies
Knersvlakte (quats E31A – H, E32A – E, E33A – F, F60A – F60E)		
E31A	Nabab se Laagte, Dasbab, Schalk se Laagte, Saraip se Laagte	Norabees, Biesiepan, Rooimond
E31B	Droëlaagte, Krom River	Bokvlak, Dirk se Muur, Van Eden se puts, Harspruit
E31C	Kaboes River, Rooiberg River, Leeuberg River, Krom River, Sandkraal River, Groot Hartbeeslaagte	Die Kop, Springboktand, Lospersplaas
E31D	April's River, Dieplaagte	Springbokkeel, Jakkalsputs, Vaalkop
E31E	Krom River	Volstruisbeen, Brandkraal, Hars River
E31F	Kamdanie River	Loeriesfontein, Welbedacht, Bloupoort
E31G	Alwynsfontein se Laagte	Bitterfontein, Alwynsfontein, Dooddrink
E31H	Twee River, Krom River, Rooisloot	Krip se Berg, Bloubok, Ezelskopvlakte
E32A	Hantams River, Dwars River, Toring River, Groot River, Elandsfontein River, Klipwerf River, Langfontein River, Slingersfontein River, Koelfontein River,	Manelsfontein, Brandwag, Tafelberg, Slingerfontein
E32B	Brassefontein River, Hantams River, Theronje River, Brak River	Kareeboomwater, Tweefontein, Nooitgedag
E32C	Beeswater's River, Hol River, Klein-Toring River, Soetlandsfontein River	Rietfontein, Louwsrus, Nuweplaas, Uitvlug
E32D	Kransgat River, Kranskraal River, Koppieskraal River	Koringhuis, Vosfontein, Rheboksfontein
E32E	Hantams River, Doring River, Rondekop River, Grasberg	Brandkop, Jobskraal, Heitoes

Quaternaries	Rivers / river reaches	Towns / settlements
	River, Soetfontein River	
E33A	Sout River, Spitskop's River, Bontemmer se Laagte, Lodewyk se Grip	Wielspoort, Slagkop, Duikervlakte, Leeukuil
E33B	Sout River, Gemsbok River	Kwaggakop, Jakkalsdraai, Kalkgat Noord
E33C	Kleinfontein River, Klipgat River, Elandsvoetpad River, Grootdrif River, Halfpad River, Vars River, Kraai River	Bruinskop, Winterplaas, Mimosa, Vars River
E33D	Geelbeks River, Klein-Riet River, Nabeeb River	Kareeberg, Tafelberg, Finkelskolk, Blesberg
E33E	Kraalboskolklaagte, Groot-Graafwater River, Rooiberg River, Sout River, Moedverloor River, Volstruislaagte, Hol River	Nuwerus, Goedehoop, Dikneus, Soutfontein
E33F	Droë River, Palmietfontein River, Langkloof River, Boonzaierswerf River, Troe-troe River	Vanrhynsdorp, Diepvlei, Uitvlugt, Witwater
F60A	Brak River	Kotzesrus, Lepelfontein, Waterval
F60B	Klein-Goerap River	Bitterfontein, Jakkalsfontein
F60C	Sout River, Boegoekom River	Rietpoort, Geelfontein, Witvlei
F60D	Groot-Goerap River, Varsbrak River	Goerap, Waterklip, Varsbrak
F60E		Graafwater, Mauritskolk, Blouvlei
Kouebokkeveld (quats E21A – E21L)		
E21A	Kruis River	Long Acres, Odessa, De Erf
E21B	Welgemoeds River	Roggevlei, Appelkloof
E21C	Winkelhaak River	Winkelhaak, Lochlynne
E21D	Houdenbek River	Wadrif, Houdenbek, Rocklands, Kleinfontein
E21E	Riet River	Suurvlakte, Peerboomshoek, Rietvlei
E21F	Riet River	Jonkershoek, Sonderwater, Kleinveld
E21G	Lang River	Kraaivoëlfontein, Bo-Bokfontein, Elim
E21H	Twee River, Klein River	Pompieshoek, Bergplaas, Sandfontein
E21J	Groot River, Brandkraals River, Breekkrans River	Dwarskloof, Nuwerus, Varkkloof
E21K	Krom River, Driehoek River, Dwars River	Dwars River, Krom River, Uitsig
E21L	Groot River, Matjies River	-
Sandveld (quats G30A-G30H)		
G30A		Redelinghuys, Witklip
G30B	Kruismans River, Huis River	Eendekuil, Duikerfontein, Krom River
G30B	Jansekraal River	Mieliedraai, Sterkfontein
G30D	Hol River	Eselsfontein, Goergap
G30E	Verlorevlei	Pietersfontein, Elandsbaai
G30F	Langvlei River	Leipoldville, Sandberg
G30G	Jakkals River	Graafwater, Kompagniesdrif
G30H		Strandfontein, Doringbaai, Nooitgedacht

Appendix 6

Previous and Existing Municipalities

APPENDIX 6: PREVIOUS AND EXISTING MUNICPALITIES

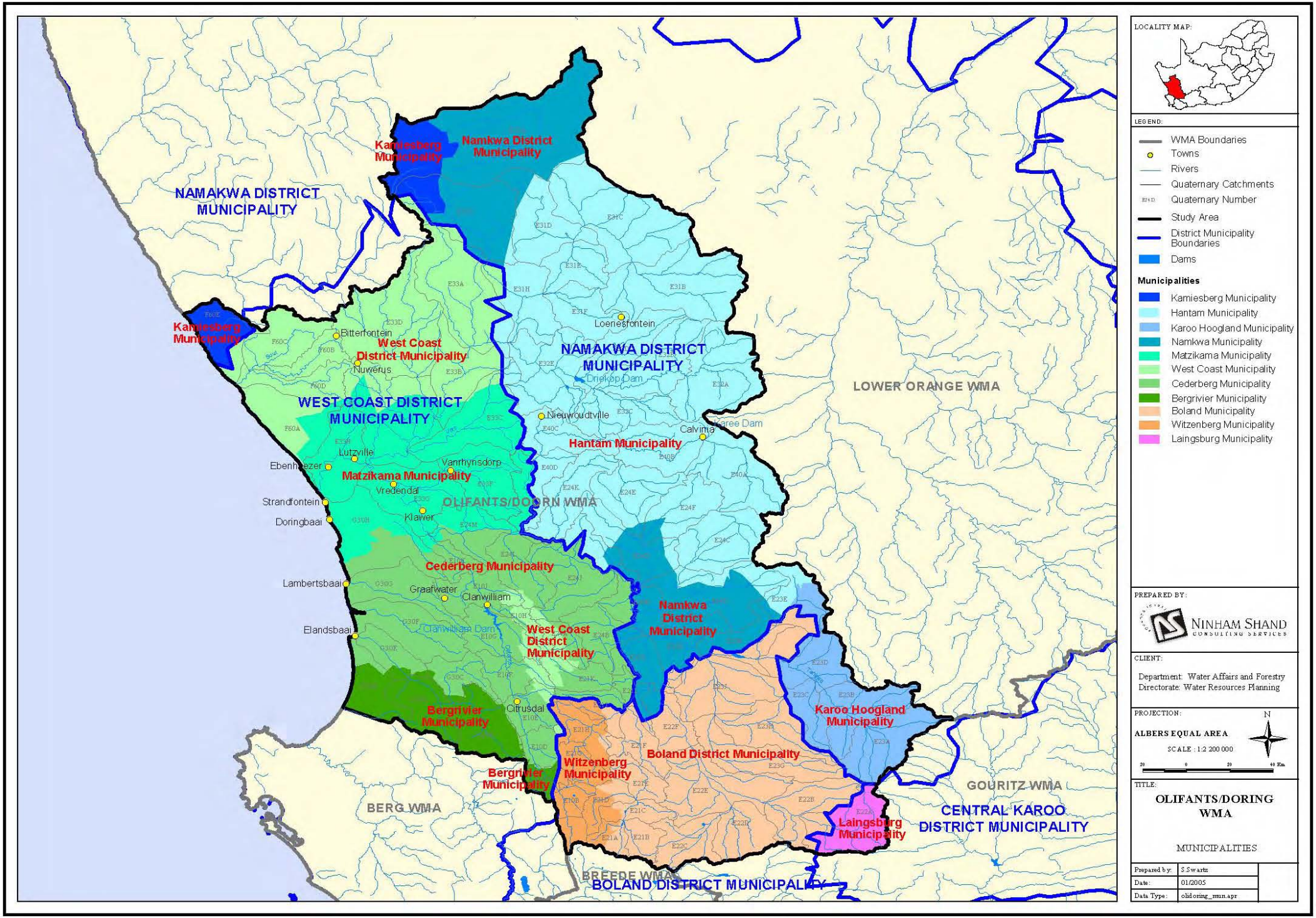
Previous Municipalities within the Olifants/Doorn WMA (Figure 1)

- Namakwa Municipality
- Spitsberg Municipality
- Hantam Municipality
- van Rhynsdorp Municipality
- Vredendal Municipality
- Clanwilliam Municipality
- Piketberg Municipality
- Witzenberg Municipality
- Roggeveld Municipality
- Laingsburg Municipality
- Matroosberg Municipality

Existing (New) Municipalities within the Olifants/Doorn WMA

The boundaries of the above municipalities were modified to create several new municipalities:

- Kamiesberg Municipality
- Northern Cape District Municipality
- Western Cape District Municipality
- Hantam Municipality
- Matzikama Municipality
- Cederberg Municipality
- Berg River Municipality
- Witzenberg Municipality
- Frasuwil Municipality
- Laingsburg Municipality


NAMAKWA DISTRICT MUNICIPALITY
Kamiesberg Municipality
Namkwa District Municipality
Kamiesberg Municipality
Bitterfontein
West Coast District Municipality
Nuwerus
WEST COAST DISTRICT MUNICIPALITY
Lutzville
Ebenhaezer
Vanrhynsdorp
Matzikama Municipality
Vredendal
Strandfontein
Doringbaai
Klawer
OLIFANTS/DOSRN WMA
Lambertsbaai
Graafwater
Clanwilliam
Cederberg Municipality
Elandsbaai
Clanwilliam Dam
West Coast District Municipality
Bergrivier Municipality
Citrusdal
Bergrivier Municipality
BERG WMA
NAMAKWA DISTRICT MUNICIPALITY
Loeriesfontein
Driekop Dam
Nieuwoudtville
Calvinia
Hantam Municipality
LOWER ORANGE WMA
Namkwa District Municipality
Witzenberg Municipality
Boland District Municipality
Karoo Hoogland Municipality
GOURITZ WMA
CENTRAL KAROO DISTRICT MUNICIPALITY
Laingsburg Municipality
BREEDE WMA
BOLAND DISTRICT MUNICIPALITY
LOCALITY MAP:
LEGEND:
WMA Boundaries
Towns
Rivers
Quaternary Catchments
Quaternary Number
Study Area
District Municipality Boundaries
Dams
Municipalities
Kamiesberg Municipality
Hantam Municipality
Karoo Hoogland Municipality
Namkwa Municipality
Matzikama Municipality
West Coast Municipality
Cederberg Municipality
Bergrivier Municipality
Boland Municipality
Witzenberg Municipality
Laingsburg Municipality
PREPARED BY:
NINHAM SHAND CONSULTING SERVICES
CLIENT:
Department: Water Affairs and Forestry
Directorate: Water Resources Planning
PROJECTION:
ALBERS EQUAL AREA
SCALE : 1:2 200 000
N
TITLE:
OLIFANTS/DORING WMA
MUNICIPALITIES
Prepared by: S.Swartz
Date: 01/2005
Data Type: olidoring_mun.apr

Appendix 7

Wastewater Treatment Works and Solid Waste Disposal Sites

APPENDIX 7: WASTEWATER TREATMENT WORKS AND SOLID WASTE DISPOSAL SITES

Quaternary	Controlling Authority	Name	Capacity	Disposal
Upper Olifants (quats E10A – E10H)				
E10E		Citrusdal Sewage Treatment Works	960 kl/ day	
Lower Olifants (quats E33G, E33H, E24M, E10K, E10J)				
E33G		Klawer Sewage Treatment Works	25 600 kl/ day	
E33G		Vredendal Sewage Treatment Works	3 000 kl/ day	
E33G		Vredendal South Sewage Treatment Works	1 000 kl/ day	
E33G		Vredendal North Sewage Treatment Works	1 000 kl/ day	
E33H		Lutzville Sewage Treatment Works	18 379 kl/day	
E10J		Clanwilliam Sewage Treatment Works	687 kl/ day	
Doring (quats E24A – L, E40A – D, E22A – G, E23A – E23K)				
Knersvlakte (quats E31A – H, E32A – E, E33A – F, F60A – E)				
E33F		Vanrhynsdorp Oxidation dam system	18 379 kl/day	
Kouebokkeveld (quats E21A – E21L)				
Sandveld (quats G30A-G30H)				
G30B		Eendekuil Oxidation dam system	138 kl/day	
G30E		Elandsbaai Sewage Treatment Works	225 kl/ day	
G30G		Graafwater New Oxidation dam system	250 kl/ day	
G30G		Lambertsbaai Oxidation dam system		
G30H		Strandfontein Oxidation dam system		

BERG RIVER	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	REDELINGHUYS
CEDERBERG	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	CITRUSDAL
CEDERBERG	DOMESTIC/BUILDING/GARDEN DUMP	GARDEN/BUILDING RUBBLE WASTE	CITRUSDAL
CEDERBERG	INCINERATOR	INCINERATOR	CITRUSDAL
CEDERBERG	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	CLANWILLIAM
CEDERBERG	INCINERATOR	INCINERATOR	CLANWILLIAM
CEDERBERG	SEWERAGE PLANT		CLANWILLIAM
CEDERBERG	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	GRAAFWATER
CEDERBERG	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	LAMBERTS BAY
MATZIKAMA	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	VREDENDAL
MATZIKAMA	INCINERATOR	INCINERATOR	VREDENDAL
MATZIKAMA	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	VAN RHYNSDORP
MATZIKAMA	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	LUTZVILLE
MATZIKAMA	DUMPING SITE	GENERAL WASTE DISPOSAL SITE	KLAWER

LOCALITY MAP:

LEGEND:

- WMA Boundaries
- Towns
- Rivers
- Quaternary Catchment
- E24D Quaternary Number
- Waste

PREPARED BY:

NINHAM SHAND CONSULTING SERVICES

CLIENT:

Department: Water Affairs and Forestry
Directorate: Water Resources Planning

PROJECTION:

GEOGRAPHIC

N

SCALE : 1:2 100 000

10 0 10 20 30 40 Kilometers

TITLE:

OLIFANTS/DORING WMA

SOLID WASTE & WASTE WATER SITES

Prepared by:	A Lawrence
Date:	07/2004
Data Type:	ob_wastewater.apr

Appendix 8

General Authorisations

APPENDIX 8: GENERAL AUTHORISATIONS

NO. 399 **26 March 2004**

REVISION OF GENERAL AUTHORISATIONS IN TERMS OF SECTION 39 OF THE NATIONAL WATER ACT, 1998 (ACT NO. 36 OF 1998)

I, ARNOLD MICHAEL MULLER, Director-General of the Department of Water Affairs and Forestry and duly authorised in terms of section 63 of the National Water Act, 1998 (Act No 36 of 1998) have revised and amended General Authorisations No 1191 published in the Government Gazette No. 20526 dated 8 October 1999,as contained in the Schedule hereto.

Sgn. A M Muller
DIRECTOR-GENERAL: WATER AFFAIRS AND FORESTRY
DATE: 18 March 2004

SCHEDULE

1. THE TAKING OF WATER FROM A WATER RESOURCE AND STORAGE OF WATER

[Sections 21(a) and (b)]

Purpose of this authorisation

1.1. The authorisation permitted in terms of this Schedule replaces the need for a water user to apply for a licence in terms of the National Water Act for the taking or storage of water from a water resource, provided that the taking or storage is within the limits and conditions set out in this authorisation.

Exclusion

1.2. This authorisation does not apply-

(a) to any lawful taking and storage within a government water control area, a government water work, a catchment control area or an irrigation district as defined in the Water Act, 1956 (Act No. 54 of 1956) prior to its repeal;

(b) to a person who does not have lawful access to any waterwork or water resource;

(c) to wetlands, the dewatering of mines or storage of water underground;

(d) to an exclusion zone of 750 metres inland from the high water mark; and

(e) to an area where the limits of taking and storage of water were reduced in terms of section 9B (1C) of the Water Act, 1956 (Act No 36 of 1956).

Compliance with National Water Act and other laws

1.3.(1) This authorisation does not-

(a) apply to any water use under Schedule 1 of the National Water Act;

(b) replace any existing authorisation that is recognised under the National Water Act; or

(c) exempt a person who uses water from compliance with any other provision of the National Water Act unless stated otherwise in this notice, or any other applicable law, regulation, ordinance or by-law.

(2) In the case of the taking of water for industrial purposes the provisions of section 7 of the Water Services Act, 1997 (Act No. 108 of 1997), must be met.

(3) A person who uses water in terms of this authorisation is exempt from compliance with section 22(2)(e) of the National Water Act.

Area of applicability

1.4 This authorisation is applicable throughout the Republic of South Africa, except as excluded in paragraph 1.2 above and the areas set out in-

(a) Table 1.1 for the taking of surface water;

(b) Table 1.2 for the taking of groundwater; and

(c) Table 1.3 (a) and (b) for storage of water.

Duration of authorisation

1.5. This authorisation will be valid for a period of five years from the date of publication of this notice, unless-

(a) it is amended at any review period, which period shall be at intervals of three years from the date of publication of this notice;

(b) the period is extended by a notice in the *Gazette*;

(c) it is replaced with a General Authorisation in relation to a specific water resource or within a specific area; or

(d) the water user is required to apply for a licence in terms of the National Water Act.

Definitions

1.6. In this authorisation unless the context indicates otherwise, any word or expression to which a meaning has been assigned in terms of the National Water Act shall have that meaning, and-

"**monitoring programme**" means a programme for taking regular measurements of the quantity and/or quality of a water resource, waste or wastewater discharge at specified intervals and at specific locations to determine the chemical, physical and biological nature of the water resource, waste or wastewater discharge;

"small industrial users" means water users who qualify as work creating enterprises that do not use more than twenty cubic metres per day and identified in the Standard Industrial Classification of All Economic Activities (5th edition), published by the Central Statistics Service, 1993, as amended and supplemented, under the following categories:-

(a) 1: food processing
(b) 2: prospecting, mining and quarrying;
(c) 3: manufacturing;
(d) 5: construction;

"**storage**" means storing water not containing waste, in a watercourse or off-channel storage;

"**taking**" means the abstraction of water from a water resource.

Taking and storage of water

1.7. A person who-

(a) owns or lawfully occupies property registered at the Deeds Office at the date of this notice; or

(b) lawfully occupies or uses land that is not registered or surveyed; or

(c) lawfully has access to land on which the use of water takes place,

may:

(i) on that property or land take groundwater as set out in Table 1.2, outside of the areas set out in paragraph 1.2 above;

(ii) take surface water for that property or land as set out in Table 1.1, outside of the areas set out in paragraph 1.2 above at a rate of up to 15 litres per second not exceeding 150 000 cubic metres per annum; and

(iii) subject to Tables 1.3(a) and (1.3(b)) store up to 50 000 cubic metres of water,

if the taking or storing of water-

(aA) does not impact on a water resource or any other person's water use, property or land;

(aB) is not excessive in relation to the capacity of the water resource and the needs of other users; and

(aC) is not detrimental to the health and safety of the public in the vicinity of the activity.

Registration of water use

1.8.(1) A person who uses water in terms of this authorisation must submit to the responsible authority a registration form or any other further information requested in writing by the responsible authority for the registration of the water use before commencement of-

(a) taking more than 50 cubic metres from surface water or 10 cubic metres from groundwater on any given day; or

(b) a combined storage of more than 10 000 cubic metres of water per property.

(2) On written receipt of a registration certificate from the Department, the person will-

(a) be regarded as a registered water user; and
(b) be liable for water charges as per the Department's pricing strategy.

(3) All forms for registration of water use are obtainable from the Regional offices of the Department, as well as from the Departmental web-site at http:\\www.dwaf.gov.za

Precautionary practices

1.9 (1) The water user must ensure that any dam complies with the requirements of Chapter 12 of the National Water Act.

(2) The water user must follow acceptable construction, maintenance and operational practices to ensure the consistent, effective and safe performance of the taking and storage of water.

(3) Where water is stored in a watercourse, the water user must take reasonable measures to ensure that the movement of aquatic species is not prevented, including those species that normally migrate through the watercourse.

(4) Outlet pipes at the lowest practical level must be provided on all storage structures for Reserve releases.

Record-keeping and disclosure of information

1.10. (1) The water user must ensure the establishment of monitoring programmes to measure the quantity of water taken and/or stored, as follows-

(a) the quantity of groundwater or surface water abstracted must be metered or gauged and the total recorded as at the last day of each month;

(b) in the case of irrigation and where no meter or gauge is used, the quantity of water abstracted may be calculated according to methods set by the responsible authority; and

(c) the quantity of water stored must be recorded as at the last day of each month.

(2) Upon the written request of the responsible authority the water user must-

(a) ensure the establishment of any additional monitoring programmes; and

(b) appoint a competent person to assess the water use measurements made in terms of this authorisation and submit the findings to the responsible authority for evaluation.

(3) Subject to paragraph 1.10. (2) above, the water user must, for at least five years, keep a written record of all taking and storage of surface or groundwater. This information must be made available upon written request to the responsible authority.

Inspections

1.11. Any property or land in respect of which a water use has been authorised in terms of this notice must be made available for inspection by an authorised person in terms of section 125 of the National Water Act.

Offences

1.12. A person who contravenes any provision of this authorisation is guilty of an offence and is subject to the penalty set out in section 151(2) of the National Water Act.

NOTE: Information regarding the drainage regions referred to in Tables 1.1, 1.2, 1.3 (a) and (b) can be obtained from the Department, upon written request.

TABLE 1.1 Areas excluded from General Authorisation for the taking of surface water

Primary drainage region	Secondary/Tertiary/Quaternary drainage region and excluded resources	Description of main river in drainage region for information purposes
A	All catchments	Limpopo River
B	All catchments	Olifants River
D	Orange River downstream of Gariep Dam	
	D13	Kraai River
E	E10A to K	Olifants River above the confluence with the Doring River
	E21	Groot River
G	G10	Berg River

Appendix 8

Primary drainage region	Secondary/Tertiary/Quaternary drainage region and excluded resources	Description of main river in drainage region for information purposes
	G21	Diep River
	G22A, B ,F and J	Eerste River
	G30	Verlorevlei River
	G40A to E	Bot River
	G40H	Onrus River (De Bos Dam Catchment)
	G40 J to L	Klein River
	G50B, C, E and F	Nuwejaars River
H	H 10A to L, excluding H10J	All Tributaries, that is, Titus-, Koekedouw-, Dwars-Holsloot, Wabooms and Slang Rivers to confluence with Breede River upstream of Greater Brandvleidam (excluding Molenaars River)
	H20A	Hex River to confluence with Breede River
	H30	Kingna River
	H40B to H 40L	All tributaries to Breede River contributing to and downstream of Greater Brandvlei Dam to confluence with the Kingna River
	H50A and B	Tributaries to confluence and main stream Breede River to s/e boundaries of Zanddrift and Langeberg WUAs
	H60 A to F	Tributaries of Sonderend River to confluence with the Breede River
	H70 C, D and E	Tradouws River to confluence with Buffeljags River
	H80A to E	Duivenhhoks River
	H90	Goukou River
J	J12	Touws River
	J25	Gamka River
	J31 to 35	Olifants River
	J40C	Langtou and Weyers Rivers
K	K10	Little Brak River
	K20	Great Brak River
	K30A	Maalgate River
	K40C	Karatara River
	K50 and K60	Knysna, Keurbooms Rivers
	K70A	Buffels River
	K70B	Bloukrans River
	K80A to F	Lottering, Storms, Sanddrif, Groot, Tsitsikamma, Klippedrift Rivers
	K90A to G	Kromme, Seekoei, Kabeljous Rivers
L	L81	Baviaanskloof River
	L82	Kouga River
	L90	Lower Gamtoos River Tributaries
M	M10	Swartkops River
	M20	Van Stadens River, Maitland River
	M30	Coega River, Van Stadens River
N	N11, N12	Sundays River upstream of Vanrynevelds Pass Dam
P	P10	Bushmans River
	P30	Kowie River
	P40	Kariega River
Q	Q41A, Q41B, Q41C, Q41D, Q44A, Q44B	Tarka River
	Q42A and B	Elands River
	Q43A and B	Vlekpoort River
	Q92	Koonap River
	Q94	Kat River
R	R20	Buffalo River
	R30A, B, C and D	Kwenxura, Kwelera, Gonubie Rivers
	R30E and F	Nahoon River
S	S20A	Indwe River upstream of the Doring River Dam, Swart Kei River upstream of the Klipplaat confluence
	S32A to C	Klipplaat River upstream of Waterdown Dam

Appendix 8

Primary drainage region	Secondary/Tertiary/Quaternary drainage region and excluded resources	Description of main river in drainage region for information purposes
	S32D and E	Thorn, Thomas Rivers
	S40A, B and C	Tsomo, Kwa-Qokwama and Mbokotwa Rivers
	S50A, B and C	Kubusi River upstream of Wriggleswade Dam
	S60A and B	Toise River
	S60C and D	Xilinxa River upstream of the Xilinxa Dam
T	T11A and B	Slang, Xuka Rivers
	T35A, B, C, D, F and G	Tsitsa, Pot, Mooi, Inxu, Wildebees, Gatberg Rivers
U	U20 and U40	Mgeni, Mvoti Rivers
V	V11	Upper Thukela River
	V20	Mooi RiverBuffels/Slang River
	V31	Buffels River
	V32	Sundays River
	V60	Bushmans River
	V70	
W	W12	Mhlatuze River
	W20	Mfolozi River
	W21A	White Mfolozi River upstream of Klipfontein Dam
	W30 (excluding W 31 [see Table 3.1(a)]	Hluhluwe and Mkuzi Rivers
X	All catchments (excluding X 11, X 12, X 21 A, B, C, F and G [See table 1.3(a)]	Nkomati River

Table 1.2 Groundwater Taking Zones: Quaternary Drainage Regions

The Table refers to the size of the property on which the General Authorisation is applicable

Zone A NO WATER MAY BE TAKEN FROM THESE DRAINAGE REGIONS EXCEPT AS SET OUT UNDER SCHEDULE 1 AND SMALL INDUSTRIAL USERS.		**Zone B 45 M^3 PER HECTARE PER ANNUM MAY BE TAKEN FROM THESE DRAINAGE REGIONS AND SMALL INDUSTRIAL USERS.**		**Zone C 75 M^3 PER HECTARE PER ANNUM MAY BE TAKEN -FROM THESE DRAINAGE REGIONS AND SMALL INDUSTRIAL USERS.**		**Zone D 150 M^3 PER HECTARE PER ANNUM MAY BE TAKEN FROM THESE DRAINAGE REGIONS AND SMALL INDUSTRIAL USERS.**		**Zone E 400 M^3 PER HECTARE PER ANNUM MAY BE TAKEN FROM THESE DRAINAGE REGIONS AND SMALL INDUSTRIAL USERS.**	
A21C,D	F60A-E	A10B,C	E22A,B,E-G	A10A	K10A,B	A21A,B	K10D-F	E10A-D	L82A-H,J
A21E-G,K,L	G21A,B,E,F	A21J	E23A,B,E	A21H	L21D	B20A,B	K20A	G10A,B,G	P20B
A23A,E	G22A-E	A22B-D	E24B,C,E,F	A22AE,G	L70A,B,E	B31B,F-H	K30A-D	G22F	T52L
A24A,B,C,J	G30E	A23D	E32C,E	A23B,C,F-H,J-L	L90B	B32G	K40B,C,D	G40A-E,G,H,J,L,M	T60D
A32E	H10C	A31B,F,G-J	E33G	A24D-H	N11A,B	C11A,B,D,F-H,K	K90E-G	G50A,F,J,K	U20M
A41D,E	H70F	A32A-C,D	E40B	A31A,D,E	N12A,B	C12E-G,K	L50A	H10B-F-H,J,K	U30A,C
A42J	J11F,G	A41C	F30C	A41A,B	N21B,D	C23B-E	L70C,F	H20B-G	U40C,E,F,J
A50A-C	J21A-E	A42A-C,D,E,G,H	F50B,C,E	A42F	N40A,B,D,E	C24A	L90A,C	H40B,K	U60C
A50G,H,J	J22D-F,J,K	A50D-F	H40F	A61B,C-E	P10A,B,D-G	C33C	M20B	H60A,C,D	U70C,D
A61J	J23A-D,F,G	A61A,F,G	J11A-E	A61H	P30A-C	C92C	N40F	H80B,C,F	V50C
A63A-E	J24B-F	A62A,E,G,J	J12C,E,J,K	A62B-D,F,H	P40A-D	E10E-H,J,K	P20A	H90C	W11A
A71A-L	J32A-D	A91J,K	J22A-C,G,H	B11A-H,J,K	Q11A-D	E21D,F-H,J,K	T40E-F	J34A,C	W12F,H,J
A72A,B	J33E	B11L	J23H	B12A-E	Q12A,B	E24A,L,M	T52M	J34C	W21K
A80A-F	L11E,G	B20D	J24A	B20E-H,J	Q14D	E40D	T60A,G,H	J40B	W23B-D
A80G-J	L12A-D	B31E	J31D	B31A	Q21A	G10C-E,H	U10L,M	K10C	W31J-L
A91A-H	L22B,C	B41B,D,H,J	J32E	B32A-F,H,J	Q41A-D	G21C-D	U20F,G,K,L	K40A,E	W45A,B
A92A-D	L23A-D	B42C,E,G,H	J33C	B41A,E,K	Q42A,B	G22G,H,K	U30D,E	K50A,B	W57K
B20C	L30B,D	B51C	L11A-D,F	B51A,B,F,H	Q91C	G40F	U40D,G,H	K60A-G	W32A,B,H
B31C,D,J	L40B	B52A,B,E	L21A-C,E,F	B52C,D,F-H,J	Q92A,B,D,E,G	G50B-E	U50A	K70A,B	W70A
B41C,F,G	N14B-D	B60G	L22A,D	B60A-D,H,J	Q93A-D	H10L	U60D-F	K80A-F	
B42A,B	N21A	B71C,F,G	L30A,C	B71A,H,J	Q94A-F	H20A,H	U70B,F	K90A-D	
B42D,F	N22A,E	B72A,F-H,J	L40A	B72B-D,K	R10C-E,G,H,J-M	H30A-E	U80B,E,G,J	L70G	
B51E,G	N23B	B73A,H,J	L50B	B73B-G	R20B,D-G	H40A,C-E,G,H,J,L	V40D,E	L81A-D	
B60E,F	N24B-D	B82A-F,J	L60A,B	B81H,J	R30A-F	H50A	V50A,B		
B71B,D,E	N30A-C	B83A-E	L70D	B82G-H	R40A-C	H60B,E,F,H,J	W11B		
B72E	N40C	B90A-H	N12C	C11C,E,J,L,M	R50A-B	H70C-E,K	W12A,B,D		
B81A,B,D	Q12C	C22H,J	N13A-C	C12A-D,H,J,L	S20A,B-D	H80A,E	W13A,B		
C51K	Q13B,C	C24H	N14A	C13A-H	S31A,D,F,G	H90A,B	W21G,H,J		
C52L	Q14A-C,E	C31F	N21C	C21A-G	S32A-C,F-H,J-M	J12A,B	W32C,F,G		
C91D	Q21B	C51H,J,L,M	N22B-D	C22A-G,K	S40A-F	J13C	W42D,E,F		
C91E	Q22B	C52H,K	N23A	C23A,F-H,J-L	S50A-E-H,J	J23J	W51C		
D31B	Q30B-E	C70D	N24A	C24B,C,G,J	S60C-E	J25A-E	W52B,C		

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D33A,C-E,K	Q44A-C	C91A-C	P10C	C25A-F	S70A-F	J31A-C,	W53A,B		
D41C-H,J,-M	Q50A,B	D14C,D	Q13A	C31B-E	T11C,F-H	J33A,F	W54C-E		
D42A-E	Q60C	D16F,G	Q22A	C32A-D	T12A-G	J34B,D-F	W55B,C,D		
D51C	Q80A-C,F	D21A,D,E,H	Q30A	C33A,B,C	T13A-C	J35B-F	W56A,B		
D53D-H,J	U20H	D22C	Q43A,B	C41A-H,J	T31A-H	J40A,C	W57J		
D54A-G	V11C,D	D31A,C,D,E	Q50C	C42A-H,J-L	T33A,B,D,F-H		X12C-F		
D55L	V70A	D33B,F-H,J	Q60A,B	C43A-D	T40G		X23A,C,D		
D56H,J	W41G	D34G	Q70A-C	C51A-G	T52J		W43E,F		
D57A-E	W42G,J,L	D41B,G,L	Q80D,E,G	C52A-G,J	T60C,J				
D58A,C	W44D	D51A,B	Q91A,B	C60A-H,J	T90A				
D62A-E	W51E	D52A-F	Q92C,F	C70A-C,E-H,J,K	U20J				
D73A,C-F	W52D	D53A-C	R10A,B,F	C81A-E,G-H,J-M	U30B				
D81A-G	X11D,F	D55A-H,J,K,M	R20A,C	C82A-H	U40B				
D82A-H,J-L	X21A-D,F,G	D56A-G	S31B,C,E	C83A-H,J-M	U70E				
E22D	X31F	D58B	S32D,E	C92A,B,C	U80A,C,D,FH,K,L				
E23C,D,F-H,J,K	X32B,E	D61A-H,J-M	S60A,B	D12A-F	V11F,K,M				
E24D,G,H	A22H,J	D62F-H,J	T11A,B,D,E	D13A-H,J-M	V12E,G				
E31A-H	A31C	D71C,D	T13D,E	D14A,B,E-H,J,K	V13B,C,E				
E32A,B,D	C24D-F	D72A-C	T20A-G	D15G,H	V14A-E				
E33A-E,H	C31A	D73B	T31J	D18K,L	V20G,H,J				
E40A	G10K-M	B81C,E-G	T32A-H	D21F,G	V31C-H,J,K				
F10A-C	G30A-H	C81F	T33C,E,J,K	D22A,B,D,G,H,L	V32A-H				
F20A-E	M10A-D		T34A-E,F-H,J,K	D23A,C-H,J	V33A-D				
F30A,B,D-G	M20A		T35A-D-H,J-M	D24A-H,J-L	V40A-C				
F40A-H	M30A,B		T36A,B	D32A-H,J,K	V50D				
F50A,D,F,G			T40A-D	D34A-F	V60C,E-H,J,K				
			T51A-H,J	D35A-H,J,K	V70F,G				
			T52A-H,K	D41A	W11C				
			T60B,E,F,K	D71A,B	W12E				
			T70A-G	E21A-C,E,L	W21A-F,L				
			T80A-D	E22C	W22A,F				
			T90B-G	E24J,K	W31A,G,K				
			U10A-H,J,K	E33F	W32D,E				
			U20A-E	E40C	W41D				
			U40A	G10F,J	W42A-C,E,F				
			U60A,B	G40K	W44B,C,E				
			U70A	G50G,H	W51A,B,D,F				
			V11A,B,E,G,H,J,	H10A	W52A				

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			L						
			V12A-D,F	H50B	W53C-E				
			V13A,D	H60G,K,L	W54A-B				
			V20A-F	H70A,B,G,H,J	W55A				
			V31A,B	H80D	X11A-C,H,J,K				
			V60A,B,D	H90D,E	X12A,B,H,K				
			V70B-E	J11H,J,K	X13H,J-L				
			W12C,G	J12D,F-H,L,M	X14H				
			W22B-E,G,H,J-L	J13A,B	X21H,K				
			W23A	J23E	X22C,D				
			W31B-F,H	J33B,D	X23B,E,F				
			W41A-C,E,F	J35A	X24A-H				
			W42H,K,M	J40D,E	X31A,K-M				
			W44A		X32C,F-H,J				
			X11E,G		X40C				
			X12G,J		S10A-J				
			X13A						
			X14A,B,D-G						
			X21E,J						
			X22A,B,E-H,J,K						
			X23G,H						
			X31B-E,G,H,J						
			X32A,D						
			X33A-D						
			X40A,B,D						

TABLE 1.3 (a) Areas excluded from General Authorisation for any storage of water

Primary drainage region	Secondary/Tertiary/Quaternary drainage region	Description of main river in drainage region for information purposes
X	X11, X12 X21A, B, C X21F,G	Komati River Catchment upstream of Swaziland Crocodile River Catchment upstream of Kwena Dam Elands River Catchment upstream of Waterval Onder
B	B1 B2 B3 B4	Olifants and Klein-Olifants River Wilge River Elands River Steelpoort River
U	U 20 A to M	Mgeni River
W	W 31 W 51 t0 57	Mfolozi River Usutu River

TABLE 1.3 (b) Areas excluded from General Authorisation for storage of water in excess of 10 000 cubic metres and falling outside government control areas proclaimed under the Water Act No 54 of 1956.

Primary drainage region	Secondary/Tertiary/Quaternary drainage region	Description of main river in drainage region for information purposes
A	All catchments	Limpopo River
B	All catchments excluding B1 to B 4 (see Table 1.3(a))	Olifants River and all tributaries
C	C11, C12, C13, C20, C40, C50, C60, C70, C81, C82, C83 and C90	Vaal River and all tributaries
V	V11 V13B	Assegaai River Tugela River

2. ENGAGING IN A CONTROLLED ACTIVITY, IDENTIFIED AS SUCH IN SECTION 37(1): IRRIGATION OF ANY LAND WITH WASTE OR WATER CONTAINING WASTE GENERATED THROUGH ANY INDUSTRIAL ACTIVITY OR BY A WATERWORK

[Section 21(e)]

Purpose of this authorisation

2.1. The authorisation permitted in terms of this Schedule replaces the need for a water user to apply for a licence in terms of the National Water Act provided that the irrigation is within the limits and conditions set out in this authorisation.

Exclusion

2.2. This authorisation does not apply to a person who is not the lawful occupier of the land on which the wastewater irrigation takes place.

Compliance with National Water Act and other laws

2.3. (1) This authorisation does not-

(a) replace any existing authorisation that is recognised under the National Water Act; or

(b) exempt a person who uses water from compliance with any other provision of the National Water Act unless stated otherwise in this notice, or any other applicable law, regulation, ordinance or by-law.

(2) A person who uses water in terms of this authorisation is exempt from compliance with section 22(2)(e) of the National Water Act.

Area of applicability

2.4. This authorisation is applicable throughout the Republic of South Africa.

Duration of authorisation

2.5. This authorisation will be applicable for a period of five years from the date of publication of this notice, unless-

(a) it is amended at any review period, which period shall be at intervals of three years from the date of publication of this notice;

(b) the period is extended by a notice in the *Gazette*;

(c) it is replaced with a General Authorisation in relation to a specific water resource or within a specific area; or

(d) the water user is required to apply for a licence in terms of the National Water Act.

Definitions

2.6. In this authorisation, unless the context indicates otherwise, any word or expression to which a meaning has been assigned in terms of the National Water Act shall have that meaning, and-

"biodegradable industrial wastewater" means wastewater that contains predominantly organic waste arising from industrial activities and premises including-
(a) milk processing;
(b) manufacture of fruit and vegetable products;
(c) sugar mills;
(d) manufacture and bottling of soft drinks;
(e) water bottling;
(f) production of alcohol and alcoholic beverages in breweries, wineries or malt houses;
(g) manufacture of animal feed from plant or animal products;
(h) manufacture of gelatine and glue from hides, skin and bones;
(i) abattoirs;
(j) fish processing; and
(k) feedlots;

"**commercial activity**" means those activities identified in the Standard Industrial Classification of All Economic Activities (5th Edition), published by

the Central Statistics Service, 1993, as amended and supplemented, under the following categories-

a) 6: wholesale and retail trade,
b) 7: transport, storage and communication,
c) 8: business services,
d) 9: community, social and personal services,
e) 0: personal and other services;

"**domestic wastewater**" means wastewater arising from domestic and commercial activities and premises, and may contain sewage;

"**irrigation**" means the application of wastewater for the purpose of crop production, and includes the cultivation of pasture;

"**monitoring programme**" means a programme for taking regular measurements of the quantity and/or quality of a water resource, waste or wastewater discharge at specified intervals and at specific locations to determine the chemical, physical and biological nature of the water resource, waste or wastewater discharge;

"**organic waste**" means waste of non-anthropogenic origin that is readily biodegradable in the environment and does not contain any toxic substances that may accumulate in the environment;

"**primary treatment**" means treatment of wastewater by a physical process, which may involve maceration, sedimentation, screening and grit removal;

"**secondary treatment**" means treatment of wastewater by a biological process, through solar and other energy, bacteria, algae and a variety of aquatic biota, to remove organic matter;

"**wastewater**" means water containing waste, or water that has been in contact with waste material.

Irrigation with wastewater

2.7. A person who-

(a) owns or lawfully occupies property registered in the Deeds Office as at the date of this notice;

(b) lawfully occupies or uses land that is not registered or surveyed; or

(c) lawfully has access to land on which the use of water takes place,

may on that property or land

(i) irrigate up to 2000 cubic metres of domestic and biodegradable industrial waste water on any given day provided the-

(a) faecal coliforms do not exceed 1000 per 100 ml;

(b) Chemical Oxygen Demand (COD) does not exceed 75 mg/l;

(c) pH is not less than 5,5 or more than 9,5 pH units;

(d) Ammonia (ionised and un-ionised) as Nitrogen does not exceed 3 mg/l;

(e) Nitrate/Nitrite as Nitrogen does not exceed 15 mg/l;

(f) Chlorine as Free Chlorine does not exceed 0,25 mg/l;

(g) Suspended Solids does not exceed 25 mg/l;

(h) Electrical Conductivity does not exceed 70 milliSiemens above intake to a maximum of 150 milliSiemens per metre (mS/m);

(i) Ortho-Phosphate as phosphorous does not exceed 10 mg/l;

(j) Fluoride does not exceed 1 mg/l; and

(k) Soap, oil or grease does not exceed 2,5 mg/l.

(ii) irrigate up to 500 cubic metres of domestic or biodegradable industrial wastewater on any given day, provided the-

(a) electrical conductivity does not exceed 200 milliSiemens per metre (mS/m);

(b) pH is not less than 6 or more than 9 pH units;

(c) Chemical Oxygen Demand (COD) does not exceed 400 mg/l after removal of algae;

(d) faecal coliforms do not exceed 100 000 per 100 ml; and

(e) Sodium Adsorption Ratio (SAR) does not exceed 5 for biodegradable industrial wastewater;

(ii) irrigate up to 50 cubic metres of biodegradable industrial wastewater on any given day, provided the-

(a) electrical conductivity does not exceed 200 milliSiemens per metre (mS/m);

(b) pH is not less than 6 or more than 9 pH units;

(c) Chemical Oxygen Demand (COD) does not exceed 5 000 mg/l after removal of algae;

(d) faecal coliforms do not exceed 100 000 per 100 ml; and

(e) Sodium Adsorption Ratio (SAR) does not exceed 5 for biodegradable industrial wastewater,

if the irrigation of wastewater-

(aA) does not impact on a water resource or any other person's water use, property or land; and

(aB) is not detrimental to the health and safety of the public in the vicinity of the activity.

Registration of irrigation with wastewater

2.8.(1) A person who irrigates with wastewater in terms of this authorisation must submit to the Responsible authority a registration form or any other information requested in writing by the Responsible authority for the registration of the water use before commencement of irrigation.

(2) On written receipt of a registration certificate by the Department, the person will be regarded as a registered water user.

(3) All forms for registration of water use are obtainable from the Regional offices of the Department as well as from the Departmental web-site at http:\\www.dwaf.gov.za

Location of irrigation with wastewater

2.9. Wastewater irrigation in terms of this authorisation is only permitted if the irrigation takes place-

(a) above the 100 year flood line, or alternatively, more than 100 metres from the edge of a water resource or a borehole which is utilised for drinking water or stock watering, which ever is further; and

(b) on land that is not, or does not, overlie a Major Aquifer (identification of a Major Aquifer will be provided by the Department, upon written request).

Record-keeping and disclosure of information

2.10. (1) The water user must ensure the establishment of monitoring programmes to monitor the quantity and quality of the wastewater to be irrigated prior to commencement of irrigation and thereafter, as follows-

(a) the quantity must be metered and the total recorded weekly; and

(b) the quality must be monitored monthly as at the last day of each month by grab sampling, at the point at which the wastewater enters the irrigation system for all parameters listed in subparagraphs 2.7.(i) and (ii).

(2) The methods for the measurement of specific substances and parameters in any wastewater must be carried out-

(a) by a laboratory that has been accredited under the South African National Accreditation System (SANAS) in terms of SABS Code 0259 for that method; or

(b) as approved in writing by the responsible authority.

(3) Upon the written request of the responsible Authority the water user must-

(a) ensure the establishment of any additional monitoring programmes; and

(b) appoint a competent person to assess the water use measurements made in terms of this authorisation and submit the findings to the responsible authority for evaluation.

(4) Subject to paragraph 2.10. (3) above, the water user must keep a written record of the following wastewater irrigation and related activities, for at least three years-

(a) demarcate the location of the irrigation area on a suitable scale map and the extent of the area under irrigation on a 1: suitable scale map;
(b) details of the crop(s) and the area under irrigation;
(c) the irrigation management techniques being practised;
(d) quantity of wastewater irrigated;
(e) quality of wastewater irrigated;
(f) details of the monitoring programme;
(g) details of failure and malfunctions in the irrigation system and details of measures taken, and

such information must be made available upon written request to the responsible authority.

(5) Any information on the occurrence of any incident that has or is likely to have a detrimental impact on the water resource quality must be reported to the responsible authority.

Precautionary practices

2.11. (1) The water user must follow acceptable construction, maintenance and operational practices to ensure the consistent, effective and safe performance of the wastewater irrigation system, including the prevention of-

(a) waterlogging of the soil and pooling of wastewater on the surface of the soil;
(b) nuisance conditions such as flies or mosquitoes, odour or secondary pollution;
(c) waste, wastewater or contaminated stormwater entering into a water resource;
(d) the contamination of run-off water or stormwater;
(e) the unreasonable chemical or physical deterioration of, or any other damage to, the soil of the irrigation site; the unauthorised use of the wastewater by members of the public; and
(f) preventing of people being exposed to the mist originating from the industrial waste.

(2) All reasonable measures must be taken for storage of the wastewater used for irrigation when irrigation cannot be undertaken.

(3) Suspended solids must be removed from any wastewater, and the resulting sludge disposed of according to the requirements of any relevant law or regulation, including-

(a) “Permissable utilisation and disposal of sewage sludge” Edition 1, 1997. Water Research Commission Report No TT 85/97 as amended from time to time; and

(b) "Guide: Permissable utilisation and disposal of treated sewage effluent", 1978. Department of National Health and Population Development Report No. 11/2/5/3, as amended from time to time (obtainable from the Department upon written request).

(4) All reasonable measures must be taken to provide for mechanical, electrical, operational, or process failures and malfunctions of the wastewater irrigation system.

(5) All reasonable measures must be taken to collect stormwater runoff containing waste or wastewater emanating from the area under irrigation and to retain it for disposal;

Inspections

2.12. Any property or land in respect of which a water use has been authorised in terms of this notice must be made available for inspection by an authorised person in terms of section 125 of the National Water Act.

Offences

2.13. A person who contravenes any provision of this authorisation is guilty of an offence and is subject to the penalty set out in section 151(2) of the National Water Act.

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3 DISCHARGE OF WASTE OR WATER CONTAINING WASTE INTO A WATER RESOURCE THROUGH A PIPE, CANAL, SEWER OR OTHER CONDUIT; AND DISPOSING IN ANY MANNER OF WATER WHICH CONTAINS WASTE FROM, OR WHICH HAS BEEN HEATED IN, ANY INDUSTRIAL OR POWER GENERATION PROCESS

[Sections 21(f) and (h)]

Purpose of this authorisation

3.1. The authorisation permitted in terms of this Schedule replaces the need for a water user to apply for a licence in terms of the National Water Act provided that the discharge is within the limits and conditions set out in this authorisation.

Exclusion

3.2. This authorisation does not apply to a person who discharges wastewater-

(a) through sea outfalls;
(b) to an aquifer;
(c) any other groundwater resource; or
(d) or any water resource with a closed drainage system.

Compliance with National Water Act and other laws

3.3.(1) This authorisation does not-

(a) apply to any water use under Schedule 1 of the National Water Act;

(b) replace any existing authorisation that is recognised under the National Water Act;

(c) exempt a person from compliance with section 7(2) of the Water Service Act, 1997 (Act No. 108 of 1997);

(d) exempt a person who uses water from compliance with any other provision of the National Water Act unless stated otherwise in this notice, or any other applicable law, regulation, ordinance or by-law; or

(e) apply to a category A mine .

(2) A person who uses water in terms of this authorisation is exempt from compliance with section 22(2)(e) of the National Water Act.

Area of applicability

3.4 This authorisation is applicable throughout the Republic of South Africa, except as excluded in paragraph 3.2 above.

Duration of authorisation

3.5. This authorisation will be applicable for a period of five years from the date of this notice, unless-

(a) it is amended at any review period, which period shall be at intervals of three years from the date of publication of this notice;

(b) the time period is extended by a further notice in the *Gazette*;

(c) it is replaced with an authorization in relation to a specific water resource or within a specific area; or

(d) the water user is required to apply for a licence in terms of the National Water Act.

Definitions

3.6. In this authorisation unless the context indicates otherwise, any word or expression to which a meaning has been assigned in terms of the National Water Act shall have that meaning, and-

"**category A mine**" means-

(a) any gold or coal mine;
(b) any mine with an extractive metallurgical process, including heap leaching; or
(c) any mine where sulphate producing or acid generating material occurs in the mineral deposit;

"**commercial activity**" means those activities identified in the Standard Industrial Classification of All Economic Activities (5th Edition), published by the Central Statistics Service, 1993, as amended and supplemented, under the following categories-
a) 6: wholesale and retail trade,
b) 7: transport, storage and communication,
c) 8: business services,
d) 9: community, social and personal services,
e) 0: personal and other services;

"**complex industrial wastewater**" means wastewater arising from industrial activities and premises, that contains-
a) a complex mixture of substances that are difficult or impractical to chemically characterise and quantify, or
b) one or more substances, for which a wastewater limit value has not been specified, and which may be harmful or potentially harmful to human health, or to the water resource (identification of complex industrial wastewater will be provided by the Department upon written request);

"**domestic wastewater**" means wastewater arising from domestic and commercial activities and premises, and may contain sewage;

"**domestic wastewater discharge**" means a wastewater discharge consisting of 90% or more domestic wastewater, by volume, that is collected, treated and subsequently disposed of;

"**industrial activity**" means those activities identified in the Standard Industrial Classification of All Economic Activities (5th Edition), published by the Central Statistics Service, 1993, as amended and supplemented, under the following categories-

a) 2: mining and quarrying,
b) 3: manufacturing,
c) 4: electricity, gas and water supply,
d) 5: construction;

"**industrial wastewater discharge**" means a wastewater discharge consisting of more than 10% industrial wastewater, by volume, that is collected, treated and subsequently disposed of;

"**intake**" is water taken from a water resource, and excludes water taken from any source that is not a water resource;

"**monitoring programme**" means a programme for taking regular measurements of the quantity and/or quality of a water resource, waste or wastewater discharge at specified intervals and at specific locations to determine the chemical, physical and biological nature of the water resource, waste or wastewater discharge;

"**listed water resources**" are those water resources listed in Table 3.3 and include any tributary of a listed water resource, and any water resource draining the catchment area of a listed water resource;

"**wastewater**" means water containing waste, or water that has been in contact with waste material;

"**wastewater limit value**" means the mass expressed in terms of the concentration and/or level of a substance which may not be exceeded at any time. Wastewater Limit Values shall apply at the last point where the discharge of wastewater enters into a water resource, dilution being disregarded when determining compliance with the wastewater limit values. Where discharge of wastewater does not directly enter a water resource, the wastewater limit values shall apply at the last point where the wastewater leaves the premises of collection and treatment.

Discharging of domestic and industrial wastewater into water resources

3.7. (1) A person who-

(a) owns or lawfully occupies property registered in the Deeds Office as at the date of this notice;

(b) lawfully occupies or uses land that is not registered or surveyed, or

(c) lawfully has access to land on which the use of water takes place.

may on that property or land outside of the areas excluded in paragraph 3.4 above,

(i) discharge up to 2 000 cubic metres of wastewater on any given day into a water resource that is **not** a listed water resource set out in Table 3.3, provided the discharge-

(a) complies with the general wastewater limit values set out in Table 3.1;

(b) does not alter the natural ambient water temperature of the receiving water resource by more than 3 degrees Celsius; and

(c) is not a complex industrial Wastewater.

(ii) discharge up to 2 000 cubic metres of wastewater on any given day into a listed water resource set out in Table 3.3, provided the discharge -

(a) complies with the special wastewater limit values set out in Table 3.1;

(b) does not alter the natural ambient water temperature of the receiving water resource by more than 2 degrees Celsius; and

(c) is not a complex industrial wastewater,

if the discharging of wastewater-

(aA) does not impact on a water resource or any other person's water use, property or land; and

(aB) is not detrimental to the health and safety of the public in the vicinity of the activity.

(2) A person may not discharge stormwater runoff from any premises containing waste, or water containing waste emanating from industrial activities and premises, into a water resource.

TABLE 3.1: Wastewater limit values applicable to discharge of wastewater into a water resource

SUBSTANCE/PARAMETER	GENERAL LIMIT	SPECIAL LIMIT
Faecal Coliforms (per 100 ml)	1 000	0
Chemical Oxygen Demand (mg/l)	75 (i)	30(i)
pH	5,5-9,5	5,5-7,5
Ammonia (ionised and un-ionised) as Nitrogen (mg/l)	6	2
Nitrate/Nitrite as Nitrogen (mg/l)	15	1,5
Chlorine as Free Chlorine (mg/l)	0,25	0
Suspended Solids (mg/l)	25	10
Electrical Conductivity (mS/m)	70 mS/m above intake to a maximum of 150 mS/m	50 mS/m above background receiving water, to a maximum of 100 mS/m
Ortho-Phosphate as phosphorous (mg/l)	10	1 (median) and 2,5 (maximum)
Fluoride (mg/l)	1	1
Soap, oil or grease (mg/l)	2,5	0
Dissolved Arsenic (mg/l)	0,02	0,01
Dissolved Cadmium (mg/l)	0,005	0,001
Dissolved Chromium (VI) (mg/l)	0,05	0,02
Dissolved Copper (mg/l)	0,01	0,002
Dissolved Cyanide (mg/l)	0,02	0,01

SUBSTANCE/PARAMETER	GENERAL LIMIT	SPECIAL LIMIT
Dissolved Iron (mg/l)	0,3	0,3
Dissolved Lead (mg/l)	0,01	0,006
Dissolved Manganese (mg/l)	0,1	0,1
Mercury and its compounds (mg/l)	0,005	0,001
Dissolved Selenium (mg/l)	0,02	0,02
Dissolved Zinc (mg/l)	0,1	0,04
Boron (mg/l)	1	0,5

(i) After removal of algae

Registration of discharges into water resources

3.8. (1) A person who discharges wastewater into a water resource in terms of this authorisation must submit a registration form for registration of the water use before commencement of the discharge.

(2) On written receipt of a registration certificate by the Department, the person will be regarded as a registered water user.

(3) All forms for registration of water use are obtainable from the Regional offices of the Department, as well as from the Departmental web-site at http:\\www.dwaf.gov.za

Record-keeping and disclosure of information

3.9. (1) The water user must ensure the establishment of monitoring programmes to monitor the quantity and quality of the discharge prior to the commencement of the discharge, as follows-

(a) the quantity of the discharge must be metered and the total recorded weekly; and

(b) the quality of domestic wastewater discharges must be monitored monthly by grab sampling and analysed for specific substances and parameters as required by the responsible authority. as set out in Table 3.2.

TABLE 3.2: Monitoring requirements for domestic wastewater discharges

DISCHARGE VOLUME ON ANY GIVEN DAY	MONITORING REQUIREMENTS
10 to 100 cubic metres	pH Electrical Conductivity (mS/m) Faecal Coliforms (per 100 ml)
100 to 1000 cubic metres	pH Electrical Conductivity (mS/m) Faecal Coliforms (per 100 ml) Chemical Oxygen Demand (mg/l) Ammonia as Nitrogen (mg/l) Suspended Solids (mg/l)
1 000 to 2 000 cubic metres	pH Electrical Conductivity (mS/m) Faecal Coliforms (per 100 ml) Chemical Oxygen Demand (mg/l) Ammonia as Nitrogen (mg/l) Nitrate/Nitrite as Nitrogen (mg/l) Free Chlorine (mg/l) Suspended Solids (mg/l) Ortho-Phosphate as Phosphorous (mg/l)

(c) the quality of industrial wastewater discharges must be monitored weekly by grab sampling-

(i) for all substances which have been added to the water through any industrial activity;

(ii) for all substances which have been concentrated in the water through any industrial activity;

(iii) for all substances which may be harmful or potentially harmful to human health or to the water resource quality; and

(iv) as set out in paragraph 3.9(1)(b) above, if the wastewater contains any domestic wastewater.

(d) The methods for the measurement of specific substances and parameters in any wastewater must be carried out-

(i) by a laboratory that has been accredited under the South African National Accreditation System (SANAS) in terms of SABS Code 0259 for that method; or

(ii) as approved in writing by the responsible authority .

(2) Upon the written request of the responsible authority the registered user must-

(a) ensure the establishment of any additional monitoring programmes; and

(b) appoint a competent person to assess the water use measurements made in terms of this authorisation and submit the findings to the responsible authority for evaluation.

(3) Subject to paragraph 3.9. (2) above, the water user must submit the following information on a monthly basis to the responsible authority -

(a) the quantity of wastewater discharged;
(b) the quality of wastewater discharged;
(c) details of the monitoring programme/s;
(d) details of failures and malfunctions in the discharge system and details of measures taken, and

such information must be made available upon written request to the responsible authority.

(4) Any information on the occurrence of any incident that has or is likely to have a detrimental impact on the water resource quality must be reported to the responsible authority.

Precautionary practices

3.10. (1) The water user must follow acceptable construction, maintenance and operational practices to ensure the consistent, effective and safe performance of the discharge.

(2) All reasonable measures must be taken to provide for mechanical, electrical, operational, or process failures and malfunctions of the discharge system.

Inspections

3.11. Any property or land in respect of which a water use has been authorised in terms of this notice must be made available for inspection by an authorised person in terms of section 125 of the National Water Act.

Offences

3.12. A person who contravenes any provision of this authorisation is guilty of an offence and is subject to the penalty set out in section 151(2) of the National Water Act.

TABLE 3.3: Listed Water Resources

	WATER RESOURCE
1	Hout Bay River to tidal water
2	Palmiet River from Kogelberg Dam to its estuary
3	Lourens River to tidal water
4	Steenbras River to tidal water
5	Berg and Dwars Rivers to their confluence
6	Little Berg River to Vogelvlei weir
7	Sonderend, Du Toits and Elandskloof Rivers upstream and inclusive of Thee Waterskloof Dam
8	Witte River to confluence with Breede River
9	Dwars River to Ceres divisional boundary
10	Olifants River to the Ceres divisional boundary
11	Hlsloot and Smalblaar (or Molenaars) Rivers to their confluence with Breede River
12	Hex River to its confluence with Breede River
13	Van Stadens River to tidal water
14	Buffalo River from its source to where it enters the King Williams Town limits
15	Klipplaat River from its source to Waterdown Dam
16	Swart Kei River to its confluence with the Klipplaat River
17	Great Brak River
18	Bongola River to Bongola Dam
19	Kubusi River to the Stutterheim limitsy
20	Langkloof River from its source to Barkly East limits
21	Kraai River to its confluence with the Langkloof River
22	Little Tsomo River
23	Xuka River to the Elliot limits
24	Tsitsa and Inxu Rivers to their confluence
25	Mvenyane and Mzimvubu Rivers from sources to their confluence
26	Mzintlava River to its confluence with the Mvalweni River
27	Ingwangwana River to its confluence with Umzimkulu River
28	Umzimkulu and Polela Rivers to their confluence
29	Elands River to the Pietermaritzburg-Bulwer main road
30	Umtamvuma and Weza Rivers to their confluence
31	Umkomaas and Isinga Rivers to their confluence
32	Lurane River to its confluence with the Umkomaas River
33	Sitnundjwana Spruit to its confluence with the Umkomaas River
34	Inudwini River to the Polela district boundary
35	Inkonza River to the bridge on the Donnybrook-Creighton road
36	Umlaas to the bridge on District Road 334 on the farm Maybole
37	Umgeni and Lions River to their confluence
38	Mooi River to the road bridge at Rosetta
39	Little Mooi and Hlatikula Rivers to their confluence
40	Bushmans River to Wagendrift Dam
41	Little Tugela River and Sterkspruit to their confluence

	WATER RESOURCE		
42	M'Lambonjwa and Mhlawazeni Rivers to their confluence		
43	Mnweni and Sandhlwana Rivers to their confluence		
44	Tugela River to its confluence with the Kombe Spruit		
45	Inyamvubu (or Mnyamvubu) River to Craigie Burn Dam		
46	Umvoti River to the bridge on the Seven Oaks-Rietvlei road		
47	Yarrow River to its confluence with the Karkloof River		
48	Incandu and Ncibidwane Rivers to their confluence		
49	Ingogo River to its confluence with the Harte River		
50	Pivaan River to its confluence with Soetmelkspruit		
51	Slang River and the Wakkerstroom to their confluence		
52	Elands and Swartkoppie Spruit to their confluence		
53	All tributaries of the Komati River between Nooitgedacht Dam and its confluence with and including Zevenfontein Spruit		
54	Seekoeispruit to its confluence with Buffelspruit		
55	Crocodile River and Buffelskloofspruit to their confluence		
56	All tributaries of the Steelpoort River down to its confluence with and including the Dwars River		
57	Potspruit to its confluence with the Waterval River		
58	Dorps River (or Spekboom River) to its confluence with the Marambanspruit		
59	Ohrigstad River to the Ohrigstad Dam		
60	Klein-Spekboom River to its confluence with the Spekboom River		
61	Blyde River to the Pilgrim's Rest municipal boundary		
62	Sabie River to the Sabie municipal boundary .		
63	Nels River to the Pilgrim's Rest district boundary		
64	Houtbosloop River to the Lydenburg district boundary		
65	Blinkwaterspruit to Longmere Dam		
66	Assegaai River upstream and inclusive of the Heyshope Dam		
67	Komati River upstream and inclusive of the Nooitgedacht Dam and the Vygeboom Dam		
68	Ngwempisi River upstream and inclusive of Jericho Dam and Morgenstond Dam		
69	Slang River upstream and inclusive of Zaaihoek Dam		
70	All streams flowing into the Olifants River upstream and inclusive of Loskop Dam, Witbank Dam and Middelburg Dam		
71	All streams flowing into Ebenezer Dam on the Great Letaba River		
72	Dokolewa River to its confluence with the Politzi River		
73	Ramadiepa River to the Merensky Dam on the farm Westfalia 223, Letaba		
	LISTED WATER RESOURCES WHERE SPECIAL LIMIT FOR ORTHO-PHOSPHATE AS PHOSPHOROUS IS APPLICABLE (Crocodile (west) Marico Water Management Area)		
74	Pienaars River and tributaries as far as Klipvoor Dam		
75	Crocodile River and tributaries as far as Roodekopjies Dam		
76	Elands and Hex River and trrbutaries as far as Vaalkop Dam		
77	Molopo River and Tributaries as far as Madimola Dam		
	RAMSAR LISTED WETLANDS:	**PROVINCE**	**LOCATION**
78	Barberspan	North-West	26°33' S 25°37' E
79	Blesbokspruit	Gauteng	26°17' S 28°30' E
80	De Hoop Vlei	Western Cape	34°27' S 20°20' E
81	De Mond (Heuningnes Estuary)	Western Cape	34°43' S 20°07' E
82	Kosi Bay	Kwazulu-Natal	27°01' S 32°48' E
83	Lake Sibaya	Kwazulu-Natal	27°20' S 32°38' E
84	Langebaan	Western Cape	33°06' S 18°01' E
85	Orange River Mouth	Northern Cape	28°40' S 16°30' E
86	St Lucia System	Kwazulu-Natal	28°00' S 32°28' E
87	Seekoeivlei Nature Reserve	Free State	27°34' S 29°35' E
88	Verlorevlei	Western Cape	32°24' S 18°26' E
89	Verloren Valei	Mpumalanga	25°14' S 30°4' E
90	Nylsvlei	Northern	24°39' S 28°42' E
91	Wilderness Lakes	Western Cape	33°59' S 22°39' E

4 DISPOSING OF WASTE IN A MANNER WHICH MAY DETRIMENTALLY IMPACT ON A WATER RESOURCE

[Section 21(g)]

Purpose of this authorisation

4.1. The authorisation permitted in terms of this Schedule replaces the need for a water user to apply for a licence in terms of the National Water Act for the disposal of waste, provided that the disposal is within the limits and conditions set out in this authorisation.

Exclusion

4.2. This authorisation does not apply to a person who is not the lawful occupier of the land or who does has lawful access to the land on which the disposal takes place.

Compliance with National Water Act and other laws

4.3 (1) This authorisation does not-

(a) replace any existing authorisation that is recognised under the National Water Act;

(b) exempt a person from compliance with section 7(2) of the Water Services Act, 1997 (Act No. 108 of 1997);

(c) exempt a person from compliance with the provisions of the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977) for construction, operation and maintenance of any structure used for the collection, treatment or disposal of waste; or

(d) exempt a person who uses water from compliance with any other provision of the National Water Act unless stated otherwise in this notice, or any other applicable law, regulation, ordinance or by-law.

(2) A person who uses water in terms of this authorisation is exempt from compliance with section 22(2)(e) of the National Water Act.

Area of applicability

4.4 This authorisation is applicable throughout the Republic of South Africa, except for those subterranean government water control areas set out in Table 4.1.

Duration of authorisation

4.5. This authorisation will be applicable for a period of five years from the date of publication of this notice, unless-

(a) it is amended at any review period, which period shall be at intervals of three years from the date of publication of this notice;

(b) the period is extended by a further notice in the *Gazette*;
(c) it is replaced with a General Authorisation in relation to a specific water resource or within a specific area; or
(d) the water user is required to apply for a licence in terms of the National Water Act.

Definitions

4.6. In this authorisation, unless the context otherwise indicates, any expression to which a meaning has been assigned in terms of the National Water Act shall have that meaning, and-

"biodegradable industrial wastewater" means wastewater that contains predominantly organic waste arising from industrial activities and premises, including-
(a) milk processing;
(b) manufacture of fruit and vegetable products;
(c) sugar mills;
(d) manufacture and bottling of soft drinks;
(e) water bottling;
(f) production of alcohol and alcoholic beverages in breweries, wineries or malt houses;
(g) manufacture of animal feed from plant or animal products;
(h) manufacture of gelatine and glue from hides, skin and bones;
(i) abattoirs;
(j) fish processing; and
(k) feedlots;

"**category A mine**" means-
(a) any gold or coal mine;
(b) any mine with an extractive metallurgical process, including heap leaching; or
(c) any mine where the mineral deposit contains sulphide or where acid-forming minerals occur in the mineral deposit;

"**complex industrial wastewater**" means wastewater arising from industrial activities and premises, that contains-
a) a complex mixture of substances that are difficult or impractical to chemically characterise and quantify; or
b) one or more substances, for which a wastewater limit value has not been specified, and which may be harmful or potentially harmful to human health, or to the water resource-
(identification of complex industrial wastewater will be provided by the Department upon written request);

"**domestic wastewater**" means wastewater arising from domestic and commercial activities and premises, and may contain sewage;

"**evaporation pond**" means a dam designed to collect and dispose of wastewater through evaporation, from which any concentrated waste or sludge must be removed and disposed of according to the requirements of any relevant laws and regulations;

"**grey water**" refers to wastewater generated through domestic activities and premises, including washing, bathing and food preparation, but does not contain sewage;

"**monitoring programme**" means a programme for taking regular measurements of the quantity and/or quality of a water resource, waste or wastewater discharge at specified intervals and at specific locations to determine the chemical, physical and biological nature of the water resource, waste or wastewater discharge;

"**organic waste**" means waste of non-anthropogenic origin that is readily biodegradable in the environment and does not contain any substances that may accumulate in the environment;

"**on-site disposal**" refers to the disposal of wastewater on individual properties not permanently linked to a central waste collection, treatment and disposal system, such as septic tank systems, conservancy tank systems, soakaway systems, french drains and pit latrines;

"**primary treatment**" means the treatment of wastewater by a physical process, which may involve maceration, sedimentation, screening and grit removal;

"**secondary treatment**" means the treatment of wastewater by a biological process, through solar energy, bacteria, algae and a variety of aquatic biota, to remove organic matter;

"**wastewater**" means water containing waste, or water that has been in contact with waste material;

"**wastewater pond system**" means a dam or system of dams designed to collect wastewater and to conduct primary and secondary treatment, from which treated wastewater is disposed of.

Storage of domestic and/or biodegradable industrial wastewater for the purpose of re-use

4.7. A person who-

(a) owns or lawfully occupies property registered in the Deeds Office as at the date of this notice;

(b) lawfully occupies or uses land that is not registered or surveyed, or

(c) lawfully has access to land on which the use of water takes place,

may on that property or land outside of the areas set out in Table 4.1-

(i) store up to 5 000 cubic metres of domestic and/or biodegradable industrial wastewater for the purpose of re-use,

if the storing of the wastewater-

(aa) does not impact on a water resource or on any other person's water use, property or land; and

(bb) is not detrimental to the health and safety of the public in the vicinity of the activity.

Storage of domestic and/or biodegradable industrial wastewater for the purpose of disposal

4.8. A person who-

(a) owns or lawfully occupies property registered in the Deeds Office as at the date of this notice;

(b) lawfully occupies or uses land that is not registered or surveyed, or

(c) lawfully has access to land on which the use of water takes place,

may on that property or land outside of the areas set out in Table 4.1-

(i) store domestic and/or biodegradable industrial wastewater for the purpose of disposal of-

(aa) up to 10 000 cubic metres per property or land; or

(bb) up to 50 000 cubic metres in a wastewater pond system per property or land,

if the storing of the wastewater-

(aA) does not impact on a water resource or on any other person's water use, property or land; and

(aB) is not detrimental to the health and safety of the public in the vicinity of the activity;

Disposal of domestic and/or biodegradable industrial wastewater

4.9. A person who-

(a) owns or lawfully occupies property registered in the Deeds Office as at the date of this notice;

(b) lawfully occupies or uses land that is not registered or surveyed, or

(c) lawfully has access to land on which the use of water takes place,

may on that property or land, outside of the areas set out in Table 4.1, dispose of -

(i) up to 1 000 cubic metres of domestic and/or biodegradable industrial wastewater, on any given day-

(aa) into a wastewater pond system; or

(bb) into an evaporation pond system;

(ii) domestic wastewater or biodegradable wastewater into a wastewater irrigation system as set out under General Authorisation 2 above;

(iii) wastewater to an on-site disposal facility -

(aa) for grey water generated by a single household;

(bb) up to one cubic metre of biodegradable industrial wastewater on any given day; or

(cc) domestic wastewater to a communal conservancy tank serving no more than 50 households;

(iv) domestic wastewater generated by a single household not permanently linked to a central waste collection, treatment and disposal system to an on-site disposal facility; and

(v) stormwater runoff from any premises not containing waste or wastewater from industrial activities and premises,

if the disposing of wastewater-

(aA) does not impact on a water resource or on any other person's water use, property or land; and

(bB) is not detrimental to the health and safety of the public in the vicinity of the activity.

Disposal of mine waste or residue

4.10. A person may dispose of mine residue into mine residue deposits provided that-

(a) the mine residue is not from a Category A mine;

(b) the disposal is in accordance with Government Notice No. 704, dated 4 June 1999; and

(c) the disposal is in accordance with SABS Code 0286, as amended from time to time.

Registration of wastewater storage

4.11.(1) A person who stores wastewater in terms of this authorisation must submit a registration form for registration of the water use before commencement of storage if more than 1 000 cubic metres are stored for disposal or if more than 500 cubic metres are stored for re-use.

(2) On written receipt of a registration certificate form the Department, the person will be regarded as a registered water user.

(3) All forms for registration of water use are obtainable from the Regional offices of the Department as well as from the Departmental web-site at http:\\www.dwaf.gov.za

Registration of wastewater disposal

4.12(1) A person who disposes of wastewater in terms of this authorisation must submit a registration form for registration of the water use before the commencement of the disposal if more than 50 cubic metres of domestic wastewater or biodegradable industrial wastewater is disposed of on any given day.

(2) The responsible local authority must submit a registration form obtained from the Department, to register the water use for disposal of domestic wastewater in-

(a) areas where more than 5 000 households are served by on-site disposal sites;

(b) areas where the density of on-site disposal sites exceeds 10 per hectare; or

(c) areas served by communal septic tanks.

(3) On written receipt of a registration certificate from the Department, the person will be regarded as a water user.

(4) All forms for registration of water use are obtainable from the Regional offices of the Department as well as from the Departmental web-site at http:\\www.dwaf.gov.za

Location of wastewater storage dams and wastewater disposal sites

4.13. Wastewater storage dams and wastewater disposal sites must be located-

(a) outside of a watercourse;

(b) above the 100 year flood line, or alternatively, more than 100 metres from the edge of a water resource or a borehole which is utilised for drinking water or stock watering, which ever is further; and

(c) on land that is not, or does not, overlie, a Major Aquifer (identification of a Major Aquifer will be provided by the Department upon written request).

Record-keeping and disclosure of information

4.14.(1) The water user must ensure the establishment of monitoring programmes to monitor the quantity and quality of the wastewater prior to storage or disposal, as follows-

(a) for the storage of wastewater, the quantity must be recorded monthly; or

(b) for the disposal of wastewater, the quantity must be gauged or metered and recorded monthly.

(2) Upon the written request of the responsible authority, the water user must-

(a) ensure the establishment of any additional monitoring programmes; and

(b) appoint a competent person to assess the water use measurements made in terms of this authorisation, and to submit the findings to the responsible authority for evaluation.

(3) Subject to paragraph 4.14 (2) above, the water user keep a written record of the following wastewater storage or wastewater disposal and related activities-
(a) the location of the storage dam or wastewater disposal site;
(b) the quantity of wastewater stored or disposed of or re-used;
(c) the quality of wastewater stored or disposed of, where applicable;
(d) details of the monitoring programme;
(e) details of failures and malfunctions of any wastewater disposal system or wastewater storage dam that the registered user is responsible for, and

such information must be made available upon written request to the responsible authority.

(4) Any information on the occurrence of any incident that has or is likely to have a detrimental impact on the water resource quality must be reported to the responsible authority.

Precautionary practices

4.15.(1) The water user must follow acceptable construction, maintenance and operational practices to ensure the consistent, effective and safe performance of any wastewater disposal system or wastewater storage dam.

(2) All reasonable measures must be taken to prevent wastewater overflowing from any wastewater disposal system or wastewater storage dam.

(3) All reasonable measures must be taken to provide for mechanical, electrical or operational failures and malfunctions of any wastewater disposal system or wastewater storage dam.

(4) Sewage sludge must be removed from any wastewater and the resulting sludge disposed of according to the requirements of any relevant law and regulation, including-

(a) “Permissable utilisation and disposal of sewage sludge” Edition 1, 1997. Water Research Commission Report No TT 85/97and Addendum thereto Edition 1, July 2002, and as amended from time to time; and

(b) “Guide: Permissable utilisation and disposal of treated sewage effluent”, 1978, Department of National Health and Population Development Report

No. 11/2/5/3, as amended from time to time (obtainable from the Department upon written request).

Inspections

4.16. Any property or land in respect of which a water use has been authorised in terms of this notice must be made available for inspection by an authorised person in terms of section 125 of the National Water Act.

Offences

4.17. A person who contravenes any provision of this authorisation is guilty of an offence and is subject to the penalty set out in section 151(2) of the National Water Act.

NOTE: Information regarding the drainage regions referred to in Table 4.1 can be obtained from the Department, upon written request.

TABLE 4.1: Subterranean government water control areas excluded from General Authorisation for disposal of waste

Primary drainage region	Tertiary/ Quaternary drainage region	Description of subterranean government water control area	Government Notice No.	Government Gazette Date
H	H30	Baden	136	1967-06-16
A	A30	Bo-Molopo	1324	1963-08-30
C	C30	Bo-Molopo	1993	1965-12-17
D	D41	Bo-Molopo	R634	1966-04-29
A	A24	Crocodile River Valley	208	1981-10-23
A	A21	Crocodile River Valley	18	1983-02-18
A	A21, A22	Kroondal-Marikana	180	1963-06-17
G	G10, G30	Lower Berg River Valley/Saldanha	185	1976-09-10
A, B	A60, B50, B31	Nyl River Valley	56	1971-03-26
G	G30	Strandfontein	2463	1988-12-09
M	M10, M20, M30	Uitenhage	260	1957-08-23
G	G30	Wadrif	992	1990-05-11
G	G20	Yzerfontein	27	1990-02-09
G	G30	Graafwater	1423	1990-06-29
A	A70	Dendron-Vivo	813	1994-04-29
A	A60	Dorps River	312	1990-02-16
C	C24	Ventersdorp	777	1995-06-02

Appendix 9

Potable water supply schemes

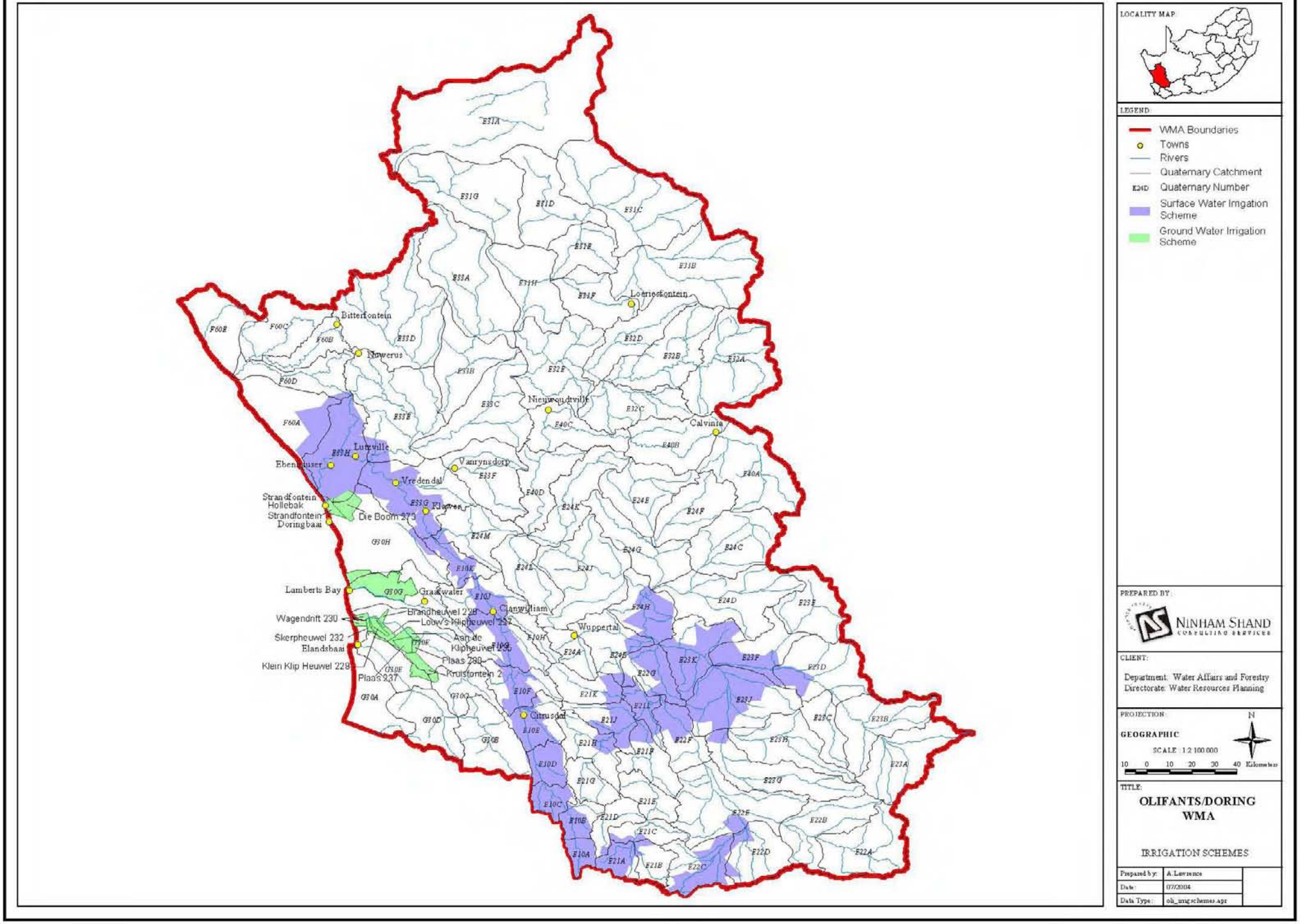
APPENDIX 9: POTABLE WATER SUPPLY SCHEMES IN THE OLIFANTS/ DORING WMA IN 1995

SCHEME NAME	RAW WATER SOURCE	POPULATION SUPPLIED	WATER REQUIRE-MENTS IN 1995 (million m^3/a)	SCHEME CAPACITY		
				million m^3/a	ℓ/c/d	LIMITING FACTOR
Klawer	Olifants River Govt Water Scheme Borehole	4 200	0,31	0,31	204	Raw water storage volume for use during canal maintenance
Vredendal and Vanrhynsdorp	Olifants River Govt Water Scheme	167 850	2,40	4,38	712	Treatment Works
Lutzville	Olifants River Govt Water Scheme	3 600	0,40	1,09	830	Canal capacity
Ebenhaezer, Strandfontein, Doringbaai	Olifants River Govt Water Scheme	5 000	0,40	1,05	575	Pump station, Treatment Works
Citrusdal	Olifants River	3 750	0,70	0,95	694	Treatment Works
Clanwilliam	Clanwilliam Dam, Jan Dissels River	4 400	0,83	1,5	934	Treatment Works
Graafwater	Boreholes	1 350	0,13	0,21	43	Number of bore-holes (more could be drilled)
Elandsbaai	2 boreholes	1 100	0,05	0,07	174	Borehole yield
Lambertsbaai	Groundwater (well)	4 100	0,80	at least 0,8	534	Pumps and pipelines
Bitterfontein and Nuwerus	7 boreholes	1 300	0,04	0,06	126	Number of bore-holes (more could be developed)
Rietpoort	2 boreholes	1 350	0,02	0,03	71	Availability of groundwater. Water quality
Loeriesfontein	6 boreholes	1 900	0,06	0,07	100	Groundwater quality
Nieuwoudtville	1 borehole	1 000	0,03	0,05	137	Borehole yield
Calvinia	Small dam and 3 boreholes	7 150	0,40	0,31	106	Pumps and pipelines
TOTALS FOR WMA		**57 050**	**6,57**	**10,88**	**522**	

(Source: Olifants Doring Situational Assessment, 2002)

Appendix 10

Controlled and Other Irrigation Schemes


LOCALITY MAP
LEGEND
WMA Boundaries
Towns
Rivers
Quaternary Catchment
Quaternary Number
Surface Water Irrigation Scheme
Ground Water Irrigation Scheme
Bitterfontein
Nuwerus
Loeriesfontein
Nieuwoudtville
Calvinia
Lutzville
Ebenhaeser
Vanrynsdorp
Vredendal
Strandfontein
Hollebak
Strandfontein
Doringbaai
Die Boom 273
Klawer
Lamberts Bay
Graafwater
Clanwilliam
Brandheuwel 228
Louw's Klipheuwel 233
Wagendrift 230
Skerpheuwel 232
Elandsbaai
Klein Klip Heuwel 229
Plaas 237
Plaas 230
Kruistontein 2
Citrusdal
Wuppertal
PREPARED BY:
NINHAM SHAND
CONSULTING SERVICES
CLIENT:
Department: Water Affairs and Forestry
Directorate: Water Resources Planning
PROJECTION:
GEOGRAPHIC
N
SCALE : 1:2 100 000
10 0 10 20 30 40 Kilometers
TITLE:
OLIFANTS/DORING WMA
IRRIGATION SCHEMES
Prepared by: A.Lawrence
Date: 07/2004
Data Type: ob_irrigschemes.apr

Appendix 11

Major Dams, Infrastructure and Transfer Schemes

APPENDIX 11: MAJOR DAMS, INFRASTRUCTURE AND TRANSFER SCHEMES

SUB-AREA: Upper Olifants (E10A-H)

Supply to towns

LOCAL MUNICIPALITY	TOWNS	CURRENT SOURCES OF SUPPLY
Cederberg Municipality	Citrusdal	Olifants River

Major Dams

Dam Name	Quat	Live Storage (x $10^6 m^3$)	Yield (x $10^6 m^3/a$)				Use	Owner
			Domestic	Irrigation	Other	Total		
Clanwilliam Dam/ Bulshoek Weir combined	E10G	122 and 6	6	144	4	154	Irrigation, urban use and mining	DWAF

SUB-AREA: Lower Olifants (E33G, E33H, E24M, E10K, E10J)

Supply to towns

LOCAL MUNICIPALITY	TOWNS	CURRENT SOURCES OF SUPPLY
Matzikama Municipality	Lutzville	Olifants River Government Scheme
Matzikama Municipality	Ebenhaezer	Olifants River Government Scheme
Matzikama Municipality	Vredendal	Olifants River Government Scheme
Cederberg Municipality	Clanwilliam	Clanwilliam Dam and Jan Dissels River Weir

Major Dams

Dam Name	Quat	Live Storage (x $10^6 m^3$)	Yield (x $10^6 m^3$/a)				Use	Owner
			Domestic	Irrigation	Other	Total		
Bulshoek Weir/ Clanwilliam Dam combined	E10K	5.7	6	144	4	154	Irrigation, urban use and mining	DWAF

Transfer Schemes

Scheme Name	From	To	Transfer (x $10^6 m^3$)	Users
Namakwa Sands Mine	Olifants River Canal near Lutzville (E33H)	Namakwa Sands Mine (F60D)	2.4 (excluding losses)	Namakwa Sands Mine
Vanrhynsdorp water supply	Olifants River Canal near Vredendal (E33G)	Vanrhynsdorp (E33F)	1.16	Vanrhynsdorp for urban use
	Olifants River Canal near Ebenhaezer (E33H)	Strandfontein and Doringbaai (G30H) and to rural domestic users in the vicinity	0.4	Strandfontein, Doringbaai and rural domestic users in the vicinity
Irrigation Water Transfer	Olifants River Canal (E10K)	E24M	0.61	Irrigation in the vicinity of the confluence of the Olifants and Doring Rivers

SUB-AREA: Doring (E24A-L, E40A-D, E22A-G, E23A-K)

Supply to towns

LOCAL MUNICIPALITY	TOWNS	CURRENT SOURCES OF SUPPLY
Hantam Municipality	Calvinia	Small dam and 3 boreholes
	Niewoudtville	1 Borehole

Major Dams

Dam Name	Quat	Live Storage ($x\ 10^6 m^3$)	Yield ($x\ 10^6 m^3/a$)				Use	Owner
			Domestic	Irrigation	Other	Total		
Oudebaaskraal Dam	E23F	34.0	0	Not known	0	Not known	Opportunistic irrigation of 320 ha	Judge Burger

Transfer Schemes

Scheme Name	From	To	Transfer ($x\ 10^6 m^3$)	Users
Inverdoon Canal	Lakenvallei Dam Catchment (H20C) in the Breede WMA	Upper Doring Catchment (E22C)	2.5	Irrigation

SUB-AREA: Knersvlakte (E31A-H, E32A-E, E33A-F, F60A-E)

Supply to towns

LOCAL MUNICIPALITY	TOWNS	CURRENT SOURCES OF SUPPLY
None – managed by West Coast District Municipality	Bitterfontein	7 Boreholes
	Nuwerus	7 Boreholes
Matzikama Municipality	Vanrhynsdorp	Olifants River Government Scheme
Hantam Municipality	Loeriesfontein	6 Boreholes

Major Dams

Dam Name	Quat	Live Storage ($x\ 10^6 m^3$)	Yield ($x\ 10^6 m^3/a$)				Use	Owner
			Domestic	Irrigation	Other	Total		
Driekop Dam	E32D							
Stofkraal Dam	E32E							

SUB-AREA: Kouebokkeveld (E21A-L)

None

SUB-AREA: Sandveld (G30A-H)

Supply to towns

LOCAL MUNICIPALITY	TOWNS	CURRENT SOURCES OF SUPPLY
Cederberg Municipality	Graafwater	Boreholes
	Lambertsbaai	Groundwater (well)
	Elandsbaai	2 Boreholes
Matzikama Municipality	Strandfontein and Doringbaai	Olifants River Government Scheme

Appendix 12

Equity Initiatives

APPENDIX 12: EQUITY INITIATIVES

This includes resource-poor farmers, land reform, poverty relief and capacity building.

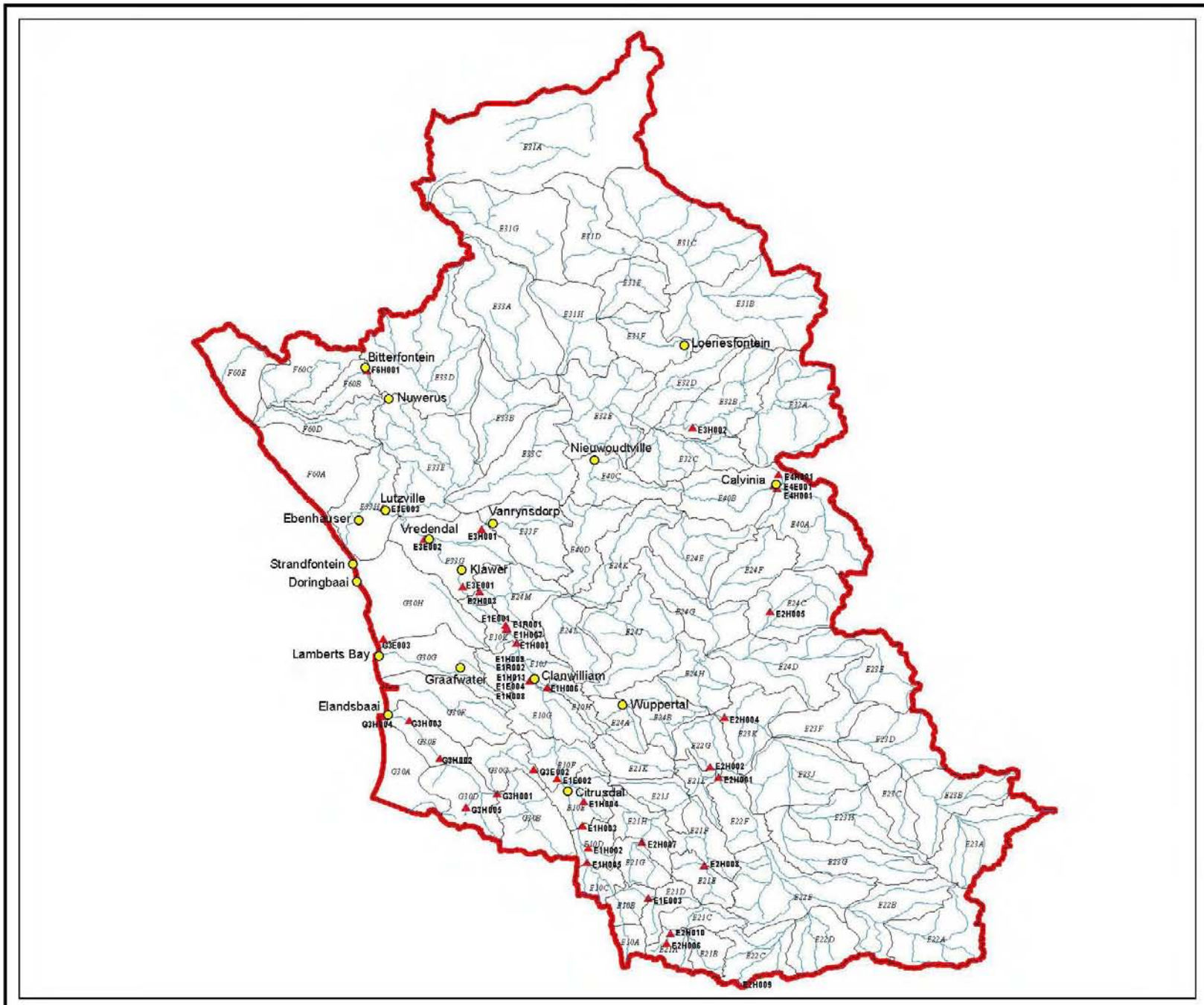
Towns/Suburbs	Project Name	Programme Type	Description
Witzenberg, Cederberg, Matzikama and Hantam	Programme to support emerging farmers accessing land, water, capacity and markets	PCM Capacity Building	Emerging Farmers
Upper Olifants (quats E10A – E10K)			
Witzenberg Valley	Caring for our valley - source of the Olifants River - schools awareness.	Champion Capacity Building	Water Awareness
Citrusdal	Elandskloof	Land Reform	
Citrusdal	Olifantstrust	Emerging Farmer	
Citrusdal	River Clean-up and Schools Awareness.	Champion Capacity Building	Water Awareness
Citrusdal	Water awareness cons. and leak repair	Champion Capacity Building	Water Conservation and Awareness – Urban
Citrusdal	Cedar Citrus / ALG Boerdery	Emerging Farmer	
Citrusdal	Spatial plan of Elandskloof for water resource management and land reform.	Champion Capacity Building	Water Conservation and Awareness – Agriculture
Vredendal	VSB (Vredendal)	Emerging Farmer	Vegetable and vine
Vredendal	Ebenhaezer Act 9	Land Reform	
Vredendal	Luiperdskop	Other	
Vredendal	Mount Pierre	Farm worker Equity Scheme	
Vredendal	Up-to-Date	Land Reform	
Vredendal	Vredendal Samewerk	Emerging Farmer	
Vredendal	Water-wise food garden for HIV / TB infected - Dorcas Care Group – Vredendal.	Champion Capacity Building	
Vredendal	Vredendal Opkomende Boere	Emerging Farmer	Chicken and Veg.
Klawer	Klawer Ontwikkeling Boerdery	Emerging Farmer	unknown
Klawer	Klawer Landbou	Emerging Farmer	unknown
Klawer	Klawer Kleinboere	Emerging Farmer	
Lutzville	Lutzville Kleinboere	Emerging Farmer	Cattle
	Olifantstrust SSF	Emerging Farmer	Initialising
Ebenhaezer	Urban WC Awareness	Champion Capacity Building	WC and Awareness
Ebenhaezer	Irrigation water use plan	Champion Capacity Building	WC and Awareness – Agriculture
Ebenhaezer	Water -wise community organic food garden	Champion Capacity Building	Water Awareness and Food Security
Ebenhaezer	Testing of micro-flood irrigation methods for water efficiency and effectivity – Ebenhaezer.	Champion Capacity Building	Water Conservation and Awareness – Agriculture
Ebenhaezer	Water conservation awareness – alien invasive vegetation removal	Champion Capacity Building	Water and Environmental Awareness
Ebenhaezer	Water Awareness Ebenhaezer Wetlands Project	Champion Capacity Building	Water and Environmental Awareness

Towns/Suburbs	Project Name	Programme Type	Description
Ebenhaezer	Water Awareness – Assessing Water Quality at the Olifants River mouth.	Champion Capacity Building	Water and Environmental Awareness
Ebenhaezer	Ebenhaezer	Emerging Farmer	Cattle
Clanwilliam	Algeria	Land Reform	Water Awareness
Clanwilliam	Boontjies River	Farm worker Equity Scheme	
Clanwilliam	Ceder Estate	Emerging Farmer	
Clanwilliam	Eikevlei / Roomsekamp	Land Reform	
Clanwilliam	Karramelksvlei	Farm worker Equity Scheme	
Clanwilliam	Clanwilliam WC and Awareness	Champion Capacity Building	Water Awareness
Clanwilliam	Paleisheuwel	Land Reform	
Clanwilliam	Leipoltville	Land Reform	
Clanwilliam	Clanwilliam SSF	Emerging Farmer	Not yet decided
Doring (quats E24A – L, E40A – D, E22A – E22G, E23A – K)			
Wuppertal	Community water awareness programme – revitalisation of Ceder-Doorn Water Forum	Champion Capacity Building	Water Awareness
	Omsien Boerdery	Emerging Farmer	Vine
Knersvlakte (quats E31A – H, E32A – E, E33A – F, F60A – F60E)			
Nuwehoop	Nuwehoop Boerdery	Emerging Farmer	Not yet decided
Vanrhynsdorp	Goedemoed / Olifants Trust	Farm worker Equity Scheme	
Vanrhynsdorp	Rietpoort Act 9	Land Reform	
Vanrhynsdorp	Schools Awareness and Competitions.	Champion Capacity Building	Water Awareness
Vanrhynsdorp	Re-using wastewater to produce fodder for resource-poor farming.	Champion Capacity Building	Water Conservation and Awareness – Agriculture
Vanrhynsdorp	Re-using waste water to produce food for HIV and TB infected persons.	Champion Capacity Building	Water Awareness, Health and Food Security
Vanrhynsdorp	Vanrhynsdorp	Emerging Farmer	Vegetable
	Rooihoogte Farm workers	Emerging Farmer	Starting project
Bitterfontein	Groundwater awareness in Bitterfontein.	Champion Capacity Building	Groundwater Awareness
Rietpoort	Groundwater monitoring and awareness around the Rietpoort Water Supply Scheme.	Champion Capacity Building	Groundwater Awareness
Op-die-Berg	Water awareness conservation and leak repair – Op-die-Berg.	Champion Capacity Building	Water Conservation and Awareness – Urban
Op-die-Berg	Aksent Droogvoet Bridge – Environmental, Poverty Relief Project	Poverty Relief	Water and Environmental Awareness
Op-die-Berg	Wethu Experiences Community Based Tourism	Local Economic Development	Environmental Awareness
Op-die-Berg	Aksent Community Services – Bring Postal, Municipal and Government Services to the community	Local Economic Development	Poverty Relief
Op-die-Berg	Water-wise Organic Food	Poverty Relief	Water Awareness, Health

Towns/Suburbs	Project Name	Programme Type	Description
	Garden - Mooihawens Church and Aksent		and Food Security
Op-die-Berg	Aksent Project Auntie Vries – warming the hearts and minds of the Koue Bokkevelders.	Health and Social	Poverty Relief
	Harmonie Trust	Emerging Farmer	
Sandveld (quats G30A-G30H)			
Elandsbaai	Water-wise community food garden – Elands Bay.	Champion Capacity Building	Water Awareness and Food Security
Lambertsbaai	Lambertsbaai Vroue Groep	Emerging Farmer	Not yet decided
Doringbaai	Doringbaai Kleinboere	Emerging Farmer	unknown
Doringbaai	Doringbos	Emerging Farmer	Not yet decided

Appendix 13

Flow Gauging Stations



LOCALITY MAP:

LEGEND:

- WMA Boundaries
- Towns
- Rivers
- Quaternary Catchment
- E24D Quaternary Number
- River Flow Gauges

PREPARED BY:

NINHAM SHAND
CONSULTING SERVICES

CLIENT:

Department: Water Affairs and Forestry
Directorate: Water Resources Planning

PROJECTION:

GEOGRAPHIC

N

SCALE : 1:2 100 000

10 0 10 20 30 40 Kilometers

TITLE:

OLIFANTS/DORING WMA

FLOW GAUGING STATIONS

Prepared by:	A Lawrence
Date:	07/2004
Data Type:	ob_gaugesbw.apr