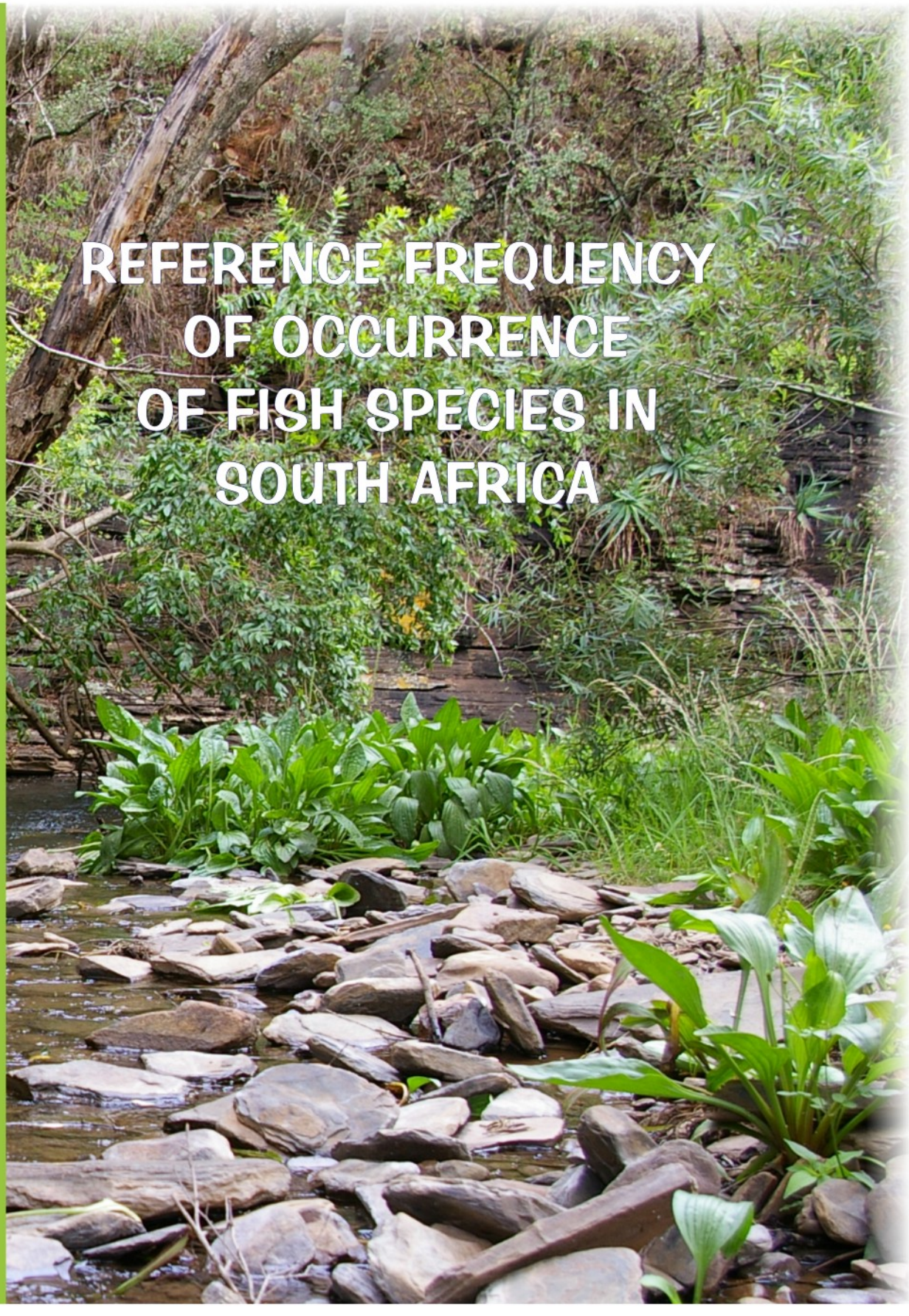
ECOCLASSIFICATION

REFERENCE FREQUENCY OF OCCURRENCE OF FISH SPECIES IN SOUTH AFRICA



water & forestry
Department:
Water Affairs and Forestry
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Water
Research
Commission

REFERENCE FREQUENCY OF OCCURRENCE OF FISH SPECIES IN SOUTH AFRICA

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REFERENCE FISH FREQUENCY OF OCCURRENCE

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REFERENCES

Kleynhans CJ, Louw MD, Moolman J. 2007. Reference frequency of occurrence of fish species in South Africa. Report produced for the Department of Water Affairs and Forestry (Resource Quality Services) and the Water Research Commission

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STRUCTURE OF THE DOCUMENT

This report explains the background and process to formulate a fish reference Frequency of Occurrence (FROC) database. This database is included on a CD as an Excel spreadsheet.

PURPOSE OF THE REFERENCE FROC

Provide consistent reference FROC for more than 700 fish sites in South Africa.

HOW SHOULD THE DATA BASE BE USED?

To apply

- the FRAI
- procedures that requires a reference fish assemblage (eg extrapolation from known sites to unknown sites)

NOTE: It is strongly recommended that the users participate in training courses and/or contact the authors of this document when using the database.

EXECUTIVE SUMMARY

BACKGROUND

Fish is considered to be one of the important indicators of river health and their responses to modified environmental conditions are measured in terms of the Fish Response Assessment Index (FRAI) (Kleynhans 1999; Kleynhans *et al*. 2005). This index is based on a combination of fish species habitat preferences as well as intolerance to habitat changes, and the present frequency of occurrence of species compared to the reference frequency of occurrence.

Various guidelines can be provided to enable assessors to derive the expected reference list of species and their reference frequency of occurrence at a monitoring site. However, variation in the interpretation of different assessors may potentially cause different reference conditions being set for a particular site or section of river.

PURPOSE OF THE STUDY

- Stipulate fish reference frequency of occurrence attributes for each of the 638 national RHP sites as was specified for each of the 19 Water Management Areas in South Africa.
- Stipulate fish reference of occurrence attributes for additional fish sampling sites.

THE FROC IN THE FRAI

The list of species is based on species that are known to be present or to have been present under close to reference habitat conditions. Species that are derived to have been present under relatively recent reference habitat conditions are also identified. The resulting species reference list is a combination of both of the above approaches

The rating of the FROC refers to the reference fish frequency of occurrence (FROC) in a particular ecologically defined reach of a river. Ratings are scored from 1 to 5. For example, if a species under natural reference conditions occurs at 3 out of 5 sites, its frequency of occurrence would be 60%, this would relate to a frequency of occurrence rating of 4 (present at most sites; >50-75% of sites).

PROCESS TO DETERMINE THE FROC

The process is summarised as follows:

- Coordinators were identified to collate information in different parts of the country.
- This information was used to initiate the compiling of the database.
- The reference species list were compiled for each site and biophysical information for sites identified.
- Maps were produced illustrating the localities of the sites.
- Workshops were held where the reference species list was refined and the FROC

ratings supplied.

- The database was verified and the results documented in this report.

THE RESULTS

The reference lists of fish species and the maps showing the sites are provided in this document. The FROC is provided in the Excel database which is attached to the report.

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1 INTRODUCTION

1.1 BACKGROUND

The River Health Programme (RHP) forms part of the National Aquatic Ecosystem Health Monitoring Programme (NAEHMP). The RHP aims to assess the health of rivers based on the response of biota (instream and riparian) to anthropogenic changes of physical drivers (i.e., hydrology, geomorphology, and physico-chemical variables) which relates to changes in habitat integrity (Kleynhans *et al*. 2005)

The response of biota to altered environmental conditions can only be assessed in comparison to the reference condition. Reference conditions can be derived based on, modelling, expert knowledge and historical data. This includes distribution data as well as information on the habitat conditions under reference conditions. The deviation of the condition of the biota from the reference condition, functions as an indication of the health of a river (Kleynhans *et al*. 2005).

Fish is considered to be one of the important indicators of river health and their responses to modified environmental conditions are measured in terms of the Fish Response Assessment Index (FRAI) (Kleynhans 1999; Kleynhans *et al*. 2005). This index is based on a combination of fish species habitat preferences as well as intolerance to habitat changes, and the present frequency of occurrence of species compared to the reference frequency of occurrence.

Various guidelines can be provided to enable assessors to derive the expected reference list of species and their reference frequency of occurrence at a monitoring site. However, variation in the interpretation of different assessors may potentially cause different reference conditions being set for a particular site or section of river. Consequently it was decided to:

- Stipulate fish reference frequency of occurrence attributes for each of the 638 national RHP sites as was specified for each of the 19 Water Management Areas in South Africa (Dallas 2005). This information will eventually be used to “customize” the FRAI models for each WMA.
- Stipulate fish reference of occurrence attributes for additional fish sampling sites. These sites are considered to be important for assisting in setting reference conditions for sites that can be used for Provincial Monitoring purposes, *ad hoc* assessments, as well as for reserve determination and monitoring purposes. This information will eventually be incorporated in FRAI model versions for each WMA.

This project forms part of the National Inception Phase of the River Health Programme

1.2 PURPOSE OF THIS REPORT

The purpose of the report is to document the process followed to establish the reference frequency of occurrence (FROC) for specified sites for use in the FRAI and to provide a database of results in a spreadsheet format and on maps.

2 FREQUENCY OF OCCURRENCE

2.1 REFERENCE CONDITIONS

Reference conditions broadly refer to “expectations on the state of aquatic biological communities in the absence of human disturbance and pollution” (www.epa.gov). In the context of this report, it refers specifically to the fish species present in a particular river reach and their frequency of occurrence under reference habitat conditions.

Although the national RHP sites refer to specific sites, the purpose of these sites is to be representative of a particular reach or section of river.

2.2 FRAI AND THE FROC

The information required for the operation of the FRAI (Kleynhans *et al*. 2005) is provided in the sections below.

2.2.1 Reference list of fish species

The list of species is based on species that are known to be present or to have been present under close to reference habitat conditions. This would include information from historical sites within a particular river reach

Species that are derived to have been present under relatively recent reference habitat conditions are also identified. This is based on the presence of species in neighbouring catchments (including upstream and downstream reaches) with more comprehensive fish distribution data. However, expert knowledge and judgment are required to ensure that it is ecologically reasonable to make conclusions on the presence or absence of a species. This includes consideration of the diversity of habitats available under reference conditions as well as consideration of the degree to which habitat have been changed from the reference situation.

Usually the resulting species reference list is a combination of both of the above approaches

2.2.2 Rating of the reference fish FROC

This refers to the reference fish frequency of occurrence (FROC) in a particular ecologically defined reach of a river. This means that FROC ratings are derived based on conditions at the particular site as well as the available habitat in the reach for species expected under reference conditions.

Basic habitat conditions that were considered in terms of the FROC of species are based on intolerance and preference rating as contained in the FRAI (Kleynhans *et al.* 2005). The presence and abundance of habitat features such as velocity-depth classes, cover types (including substrate) and the characteristics of the natural flow regime (especially the degree of perenniality) in a river reach under reference conditions formed the basis for the expert judgment of the FROC.

For example, if a species under natural reference conditions occurs at 3 out of 5 sites, its frequency of occurrence would be 60%, this would relate to a frequency of occurrence rating of 4 (present at most sites; >50-75% of sites) (Table 3.2).

FROC as used for this assessment does not refer to the frequency of occurrence of species at a site at different sampling points at a site. As indicated above, the FROC refers to the number of sites (under reference conditions) where a species would be expected to occur given the available habitat for the species and its habitat preferences and intolerances. This is illustrated in Figure 2.1.

The FROC also does not refer to the abundance of a species as such (although the abundance generally has a direct relationship with the frequency of occurrence).

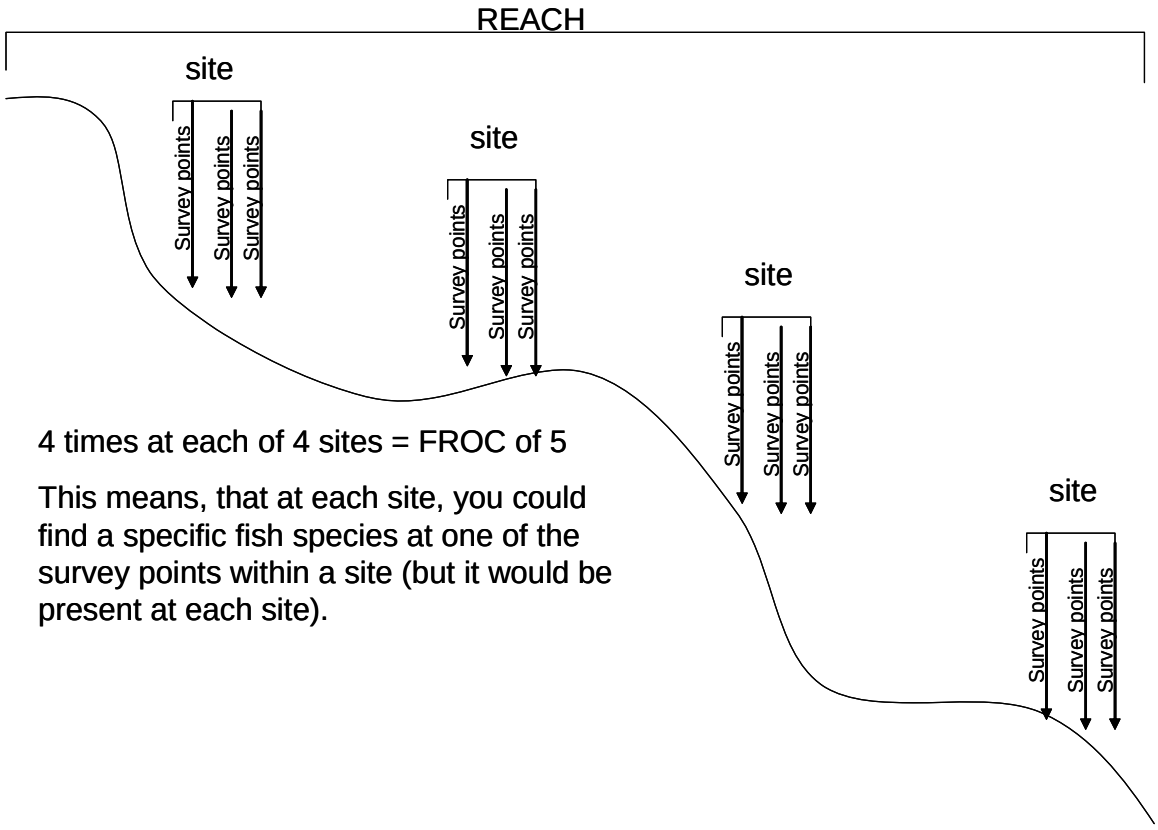


Figure 2.1 Illustration of the FROC interpretation in a river reach

3 PROCESS

The following process was applied:

- Five coordinators (fish specialists) were identified that were tasked with consulting with key fish specialists in different regions of the country to obtain and collate data in a prescribed format. The data sources available to these specialists included personal observations, expert knowledge, and regional (e.g., Provincial) databases. The fish distribution database of the Albany Museum and the South African Institute of Aquatic Biodiversity (SAIAB) were also kindly made available and were provided to the coordinators.
- A spreadsheet was devised to capture data. This spreadsheet consists of two sheets:
  – Sheet 1 (WMA**): Information on the biophysical information at the site were captured here and were provided to the coordinators (Table 3.1). The information received from the coordinators were collated and used to compile maps of each WMA (or subWMAs) which indicated EcoRegions, Quaternary Catchments and geomorphic zones, RHP sites as well as all other fish sampling sites.

Table 3.1 Sheet 1 (WMA) of the .xls spreadsheet used to collate data.**

FIELD NAME (ROW TITLE IN SPREADSHEET)	DESCRIPTION
FROC Site Code	The RHP site code as used in Dallas (2005), or a code that indicates the WMA number followed by the first letter of the WMA name, F (for fish) and a unique site number.
INCORPORATED SITES	Sites that were combined to contribute to the RHP Site Code information
WMA	Official DWAF number of the WMA assessed
QUAT	Quaternary catchment code according to WR90 (Midgley *et al.* 1994)
LATITUDE	Decimal degrees
LONGITUDE	Decimal degrees
MAJOR RIVERS	Main river
TRIBUTARY	If site is situated in a tributary of a larger river.
ECOREGION	Level 2 EcoRegion as indicated in Kleynhans (*et al.* 2005)
GEOMORPH ZONE	Longitudinal geomorphic zone (Rowntree & Wadeson 1999)
ALTITUDE	Altitude above mean sea level (m)
FISH	List of fish species (native and introduced), four letter code used as indicated in Kleynhans *et al.* (2005): • 1=indicates spp. that can be referred to collected specimens, • 2=indicates spp. that have been sampled and positively identified at a site, • 3=indicates spp. that are derived to be present, or that could have been present under reference conditions

– Sheet 2 (FREQ): The information from sheet: WMA** was converted to the format indicated in Table 2. This sheet was provided for use by participants during the workshop to indicate the frequency of occurrence rating for species.

Table 3.2 Collated format of sheet: FROC (cf. Table 3.1) for use during workshops

FIELD NAME (COLUMN TITLE IN SPREADSHEET)	DESCRIPTION
FROC Site Code	Cf. Table 1.
SPP	Cf. Table 1: species indicated as 1 & 2
XSPP	Species indicated as 3 in Table 1, as well as other species suspected to be present under reference conditions.
FROC	Fish frequency of occurrence rating: 1=Present at very few sites (<10% of sites) 2=Present at few sites (>10-25%) 3=Present at about >25-50 % of sites 4=Present at most sites (>50- 75%) 5=Present at almost all sites (>75%)
CONFIDENCE	The confidence in the frequency of occurrence rating: 1=Low confidence 2=Low to moderate 3=Moderate 4=Moderate to high 5=High
RELATIVE ABUNDANCE	It is assumed that assessment is done during a year when a suitable base flow is present. Rating: 1=1-5 individuals 2=6-50 individuals 3 >50 individuals Or 1=Rare 2=Moderate 3=Abundant Due to the high variability in natural abundance of fish, his rating was only applied where an assessor had high confidence in the rating. The rating is not used in the FRAI and is considered as supplementary information.
COMMENT	Any comment that the assessor felt was relevant and important.

- Workshops: Key fish specialists in the country was invited to three workshops. The regions were dealt with as follows:
  – Cape Town workshop: Eastern Cape and Western Cape, WMA 12, 15, 16, 17,

18 and 10

– Pretoria workshop: FreeState and Northern Cape, WMAs 1, 2, 3, 4, 5, 6, 7 and 11.

– Hazyview: Mpumalanga, Limpopo, Northwest, Kwazulu-Natal, WMA 8, 9, 10, 13 and 14.

- At each workshop, key specialists were grouped to address specific WMAs which they know well. The prepared spreadsheets and maps were provided to the specialists.

    - The specialist checked and verified the reference species and adjusted and the FROC, confidence and abundance rated where necessary.
    - The results of the workshops: The spreadsheets emanating from the workshops were checked and verified on GIS to ensure that the correct information was provided for each site. And sites that did not plot correctly was taken out of the spreadsheet and stored separately. The final (FROC) sites was printed on the maps provided in this report.

The verified spreadsheets (database) for each WMA are included as an electronic appendix to this report.

4 RESULTS

The results are provided as described below:

- The site geo-referencing and physical characteristics information as well as the fish reference species list are provided in the tables below for each WMA. This represents the first sheet of the database as illustrated in Table 3.1.
- Maps are provided of each WMA showing the sites used.
- Electronic database: The database is provided in the attached CD.

WMA 1: LIMPOPO

FROC Site Code	A4LIMP-MOGOL	A4LIMP-STOCK	A5LIMP-PALAL	A6LIMP-EENDE	A6LIMP-USUTU	A7LIMP-GREEF	A8LIMP-NSHEL	A8LIMP-NWAND	A8LIMP-SANDC	A4MATL-AWETL	A4MATL-MATLA	A4FRIK-FRIKK	1LF7
LATITUDE	-23.19002	-23.38649	-23.00561	-22.42488	-22.57712	-22.17869	-22.33752	-22.30805	-22.29318	-23.77700	-24.28771	-24.31687	-24.48590
LONGITUDE	27.75643	27.46062	27.93679	28.94544	28.54601	29.40056	30.41256	30.68987	30.19136	27.01730	27.50183	27.95877	28.07370
WMA	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo
QUAT	A42J	A41E	A50H	A63E	A63C	A71L	A80J	A80J	A80G	A41D	A41A	A42D	A42A
MAJOR RIVERS	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Mokolo	Limpopo
TRIBUTARY										Matlabas	Matlabas	Frikkiesloop	Sand (Mogol)
ECOREGION	1.02	1.02	1.02	1.01	1.02	1.01	1.01	1.01	1.01	1.02	1.02	6.01	7.02
GEOMORPH ZONE	F	F	F	E	E	F	F	E	E	E	E	D	E
ALTITUDE	792	810	783	662	756	540	426	386	502	866	985	1246	1202
FISH													
ABEN													1
AJOH	1												1
AKAT													
AMAR			3		3								
AMOS			3		3	1	1			3	3	3	
AURA												1	1
BAFR			1	1	1	1	1	1					
BANN			1	1	1	1	1				1		
BBIF											1	1	1
BBRI												1	1
BEUT												1	
BIMB			1	1	1	1	1	1	1				
BMAR	1	1	1	1	1	1	1		1	3	1	1	1
BMAT	3	1	3	1	3	1	1						
BNEE													
BPAL													
BPAU	1	1	1	3	1	1	1		1	3	1	1	1
BPOL													3
BRAD	1		1	1	1	1	1						
BTOP						1	1						
BTRE										3			
BTRI		1	1	1	1	1	1				1	1	1
BUNI		1	1	1	1	1	1			3	1		1
BVIV									1				
CCAR (E)												1	
CFLA										3			
CGAR	3	1	1	1	1	1	1		3	3	1	1	1
CPAR			1	1	1	1	1		3				
CPRE							1		3			1	1
CTHE													
GCAL													
GIUR													
GGIU							1	1	1				
HVIT				3			1		3				
LCON			1	3	1	1	1		1				
LCYL	3	3		1	3	1	1		3		1	3	3
LMAC(E)													
LMOL	3	3		1	3	1	1		1		3	1	1
LROS	3	1	1	1	1	1	1						
LRUD			1	1	1	1	1		1				
MACU	3	3	1	1	1	1	1		3			1	
MBRE	1	1	1	3	1	1	1		1	3			
MMAC			1		1		1	1		3	1	1	1
MSAL (E)												1	
OMOS	1	1	1	1	1	1	1		1	3	1	1	1
ONIL (E)													
OPER													
PCAT												3	
PWES			1		1			1					
PPHI	1	1	3	3	3	1	1		1	3	1	1	1
SINT	3	1	1	1	1	1	1	1					
SZAM	3	1	1	3	1	1	1	1					
TREN			3		3	1	1						
TSPA	3	3									2	1	1

WMA 01 LIMPOPO CONTINUED

FROC Site Code	1LF26	1LF28	A4MOKO-ABDAM	1LF20	1LF25	A4MOKO-BEDAM	A4MOKO-ELLIS	A4MOKO-VAAL	1LF11	A5LEPH-BEAUT	A5LEPH-OVERY	A5LEPH-SCHOO	A6OLIF-OSTRI
LATITUDE	-24.36450		-24.05152	-23.87710	-24.19150	-23.81230	-23.39508	-24.33155	-23.65220	-23.19745	-23.6119	-23.9415	-24.61192
LONGITUDE	27.80962		27.79999	27.64630	27.94040	27.77330	27.71174	28.12311	27.75973	27.88538	28.1179	28.3667	28.427
WMA	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo
QUAT	A42D	A42A	A42F	A42G	A42E	A42G	A42J	A42C	A42H	A50H	A50F	A50D	A61B
MAJOR RIVERS	Mogol	Mogol	Limpopo	Mogol	Mogol	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Nyl
TRIBUTARY	Sterk stroom	Mogol	Mokolo	Rietspruit	Sterk stroom	Mokolo	Mokolo	Mokolo	Mogol	Lephalala	Lephalala	Lephalala	Olifantspruit
ECOREGION	6.02	7.02	6.02	6.01	6.02	6.01	1.02	6.01	1.03	1.02	1.02	6.01	7.03
GEOMORPH ZONE	D	E	E	D	E	F	F	E	F	F	F	E	D
ALTITUDE		1202	979	855	1025	840	805	1159		796	875	1129	1298
FISH													
ABEN	3	1	3	3	3	3	3	1	3	3	3	3	
AJOH			1		1	1	1	1	1	1	1	1	
AKAT													
AMAR													
AMOS	3		3	3	3	3	3	1	3	3	3	1	
AURA	1	1	1		1			1					1
BAFR							1						
BANN				1		3	1		1		1		
BBIF	1	1	1	1	1	1	1	1			1	1	1
BBRI	1	1	3	3	1			1			1	1	1
BEUT	1				3							1	
BIMB													
BMAR	1	1	1	3	1	3	1	1	1	1	1	1	1
BMAT													
BNEE													
BPAL													
BPAU	1	1	3	1	1	1	1	1	1	1	1	1	1
BPOL													
BRAD				1			1		3	3			
BTOP													
BTRE													
BTRI	1	1	1	1	1	1	1	1	1	1	1	1	1
BUNI	3		3	3	3	3	1	1	1	1	1	1	1
BVIV							1	1	1	1	1		1
CCAR (E)													
CFLA	1		1	3	1	1	1	1	1	3	1	1	
CGAR	1	1	1	1	3	1	1	1	1	1		1	1
CPAR						1	1		1	1	1	1	
CPRE	1	1	1		1	1		1			1	1	
CTHE												1	1
GCAL													
GIUR													
GGIU													
HVIT													
LCON													
LCYL	3		1	3	1	3			1	3	1	1	1
LMAC(E)	1												
LMOL	1	1	1	1	1	1	1	1	1	1	1	1	3
LROS							1		1	3	3	3	
LRUD				1		1	1		1	3	1		
MACU	1		1	3	1	1	1	1	1	1	1	1	
MBRE			1	3	1		3		1	1	1	3	
MMAC			1	1	1	1	3	1	1	3		1	
MSAL (E)	1												
OMOS	1		1	3	1	1	1	1	1	1	1	1	1
ONIL (E)													
OPER												1	
PCAT	3		1	1	1	1		1	1	3		1	
PWES													
PPHI	1	1	1	2	1	1	1	1	1	1	1	1	1
SINT			1	1		1	1		1			3	
SZAM			1				1		1	3		1	
TREN			1	1	1	1	1	1	1	1	1	1	
TSPA	1	1	1	1	3	1	2	1	1	1	1	3	3

WMA 01 LIMPOPO CONTINUED

FROC Site Code	A6KLEIN-MODOM	A6NYL-JAAGB	A6NYL-NYLSV	A6NYL-TOBIA	A6STER-HANGK	A6MOG A-BGLEN	A6MOGA-UGLEN	A7BRAK-GAMAM	A7HOUT-POLOK	A7SAND-POLOK	A7SAND-WATER	A8NZHE-BEDAM	A8NZHE-UPDAM	A8NWAN-ABDAM	A8NWAN-BEDAM
LATITUDE	-24.56740	-24.2866	-24.67990	-24.47223	-24.37937	-22.87547	-23.43198	-23.1873	-23.6054	-23.79518	-22.8068	-22.61158	-22.82920	-22.70888	-22.4761
LONGITUDE	28.67960	28.96	28.60770	28.88234	28.61467	28.68129	28.6233	29.06023	29.3009	29.45079	29.6122	30.14456	30.05940	30.374	30.4643
WMA	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo
QUAT	A61C	A61E	A61B	A61E	A61H	A63B	A62G	A72A	A71E	A71A	A71J	A80G	A80B	A80H	A80J
MAJOR RIVERS	Nyl	Limpopo	Limpopo	Limpopo	Mogalakwena	Limpopo	Limpopo	Sand	Sand	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo
TRIBUTARY	Klein Nyl	Nyl	Nyl	Nyl	Sterk	Mogalakwena	Mogalakwena	Brak	Hout	Sand	Sand	Nzhelele	Nzhelele	Nwanedzi	Nwanedzi
ECOREGION	8.01	8.01	8.01	8.01	7.03	1.02	1.02	1.02	5.01	5.01	1.02	2.02	2.03	2.04	2.02
GEOMORPH ZONE	D	F	F	F	E	F	F	E	E	E	E	E	D	D	E
ALTITUDE	1115	1063	1105	1068	1232	765	853	908	1137	1185	710	530	729	888	452
FISH															
ABEN												3	3		
AJOH		1	1	3			3								
AKAT			3		1										
AMAR												3	3		
AMOS						3	3					3	3		1
AURA													3	1	
BAFR															
BANN						3									
BBIF	1		1		1									1	1
BBRI					1										1
BEUT													1	1	
BIMB												3			
BMAR	3	3	1	3	1	3	3	3	3	3	1	1	1	1	1
BMAT											1				
BNEE													3		1
BPAL															
BPAU	1	1	1	1	1	1	1	3	1	3	1	1	1	1	1
BPOL															
BRAD						1	1							1	1
BTOP											1			1	1
BTRE															
BTRI	1	1	1	1	1	1	1	1	1	3	1		1	1	1
BUNI	3	3	1	3	1	1	1	1	1	3	1	1	1	1	1
BVIV		1										1	3	1	1
CCAR (E)						1	1								
CFLA	1				1		1								1
CGAR	1	1	1	1	1	1	1	1	3	3	3	1	3		1
CPAR							1				1	1			1
CPRE					1							1	3		1
CTHE														1	
GCAL												1			
GIUR												1			
GGIU															
HVIT												3			
LCON						3	3								
LCYL					1	3	3					1	3	1	1
LMAC(E)															
LMOL	3	3	3	3	3	1	3					1	3	3	1
LROS						1	1					3			
LRUD						1	1								
MACU						3	1					1	1	1	1
MBRE	3				1	3	1	1				1	1		
MMAC		3	1	3	1		3						3	1	1
MSAL (E)					1										
OMOS	1	1	1	1	1	1	1	1	1	3	1	1	3	1	1
ONIL (E)												1			
OPER															
PCAT													3		
PWES														1	1
PPHI	1	1	1	1	1	1	1	3	1	3	1	1	1	1	1
SINT						3	1				1	3	1		
SZAM						3	3					3	3		
TREN						1	1					1			
TSPA	1	1	3	1	1		3					1	3		

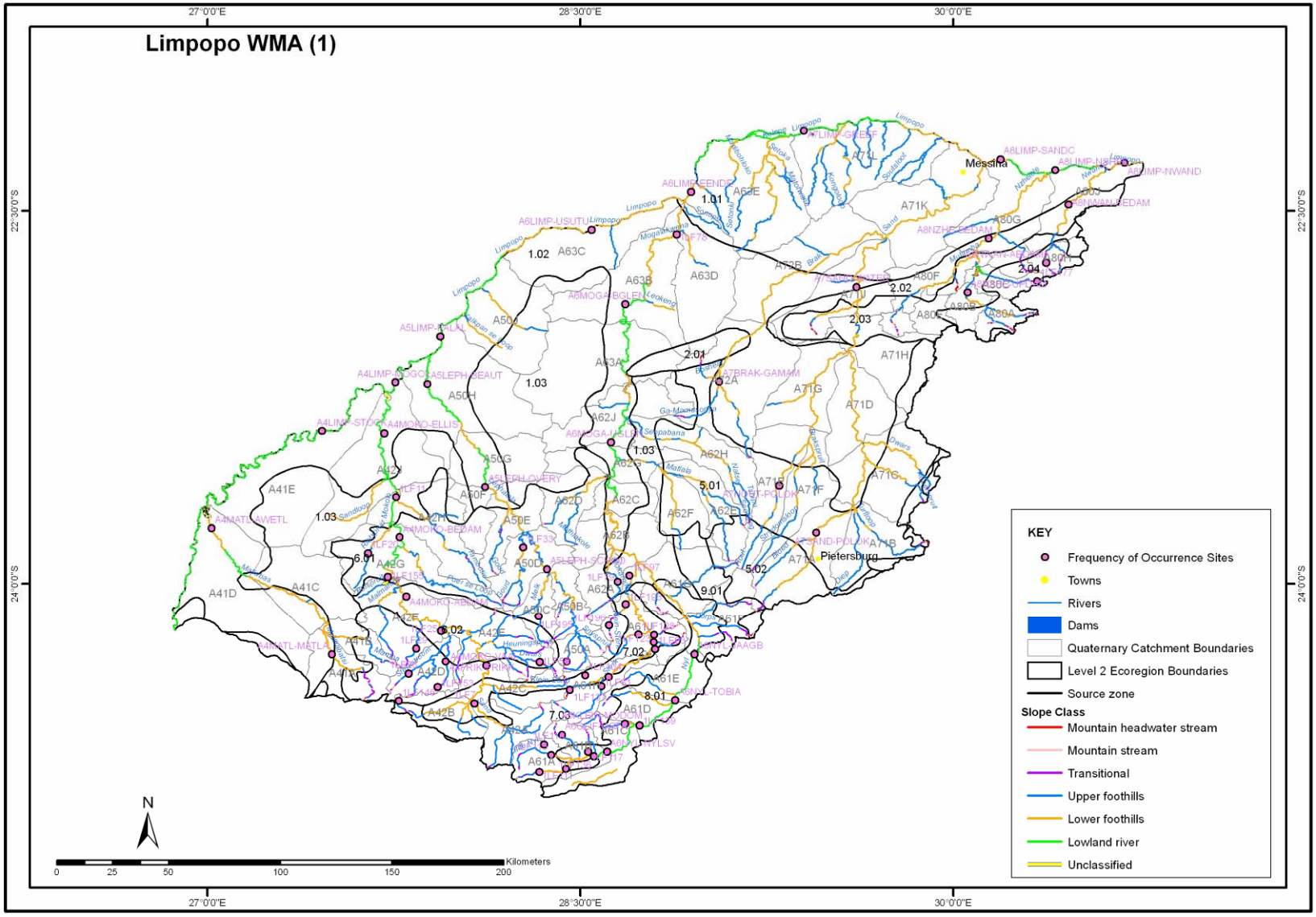
WMA 01 LIMPOPO CONTINUED

FROC Site Code	1LF29	1LF33	1LF52	1LF59	1LF78	1LF79	1LF81	1LF93	1LF97	1LF103	1LF111	1LF115	1LF120	1LF128
LATITUDE	-24.2636	-23.855	-24.3167	-24.3182	-22.595397	-23.9923	-24.4166	-24.266353	-23.968042	-24.749333	-24.761136	-24.692625	-24.208706	-24.207836
LONGITUDE	27.84038	28.271	28.446	28.3367	28.888819	28.6515	28.5859	28.801558	28.698889	28.443006	28.335181	28.384142	28.797778	28.7341
WMA	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo
QUAT	A42F	A50D	A50A	A42E	A63D	A62A	A61H	A61J	A61J	A61A	A61A	A61A	A61J	A61J
MAJOR RIVERS	Mogol	Lephalala	Lephalala	Lephalala	Limpopo	Mogala kwena	Mogala kwena	Mogala kwena	Mogala kwena	Limpopo	Mogala kwena	Nyl	Sterk	Sterk
TRIBUTARY	Taaibos spruit	Blockland spruit	Rietbok Vleispruit	Dwars	Mogala kwena	Mokamole	Sterkrivier	Sterkrivier	Sterkrivier	Nyl	Groot Nyl	Klein Nyl	geen naam	Mmadikiri
ECOREGION	6.01	6.01	6.01	6.02	1.02	1.03	7.03	7.02	1.03	7.03	7.03	7.03	7.02	7.02
GEOMORPH ZONE	D	E	D	D	E	D	D	E	E	E	D	D	D	E
ALTITUDE	1204	1035	1584	1421	655	1021	1257	1150	982	1150	1200	1150	1112	1112
FISH														
ABEN		3		3										
AJOH	3	1						1	1	1	1			
AKAT										1	1			1
AMAR					3									
AMOS	3	3		1	3									
AURA				1							1			
BAFR														
BANN														
BBIF	1	1	1	1		1		1	1	1	1	1		1
BBRI	1	3	1	1				1		1	1	1		
BEUT		3	1									1		
BIMB														
BMAR	3	1		1	1	1		1	1	1	1	1	1	
BMAT														
BNEE														
BPAL										1		1		
BPAU	1	1	1	1	1	1	3	1	1	1	1	1	1	1
BPOL														
BRAD					1	1								
BTOP														
BTRE														
BTRI		1		1	1	1	3	1	1	1	1	1	1	1
BUNI		1		2	1	1	1	1	1	1	3	1	1	1
BVIV		1								1		1		
CCAR (E)			1											
CFLA	3	1		1		1	1	1	1		1	1	1	
CGAR		3		1	1	1	1	1	1	1	1	1	1	1
CPAR					1			1	1					
CPRE		1		1			1	1						
CTHE		3	1									1		
GCAL														
GIUR														
GGIU														
HVIT														
LCON					3									
LCYL		3		1	1	1		1	1				1	
LMAC(E)														
LMOL	3	1		1	3	1	1	1	1			1	1	
LROS		1			1									
LRUD					1									
MACU		1		1	1	1		1	1					
MBRE		1			1			1	1	1		1	1	1
MMAC		1		1			1	1	1	1				
MSAL (E)			1			1			1		1			
OMOS		1		1	1	1	1	1	1	1	1	1	1	1
ONIL (E)														
OPER		3												
PCAT		1												
PWES				1										
PPHI	3	1	1	1	1		1	1	1	1	1	1	1	1
SINT		1			1				1					
SZAM														
TREN	1	1			1	1	1	1	3			1		
TSPA	3	1	1	3			3	1	1		3	3		

WMA 01 LIMPOPO CONTINUED

FROC Site Code	1LF136	1LF137	1LF139	1LF146	1LF153	1LF155	1LF177	1LF193	1LF195	1LF196	1LF104	1LF117	1LF123	1LF118
LATITUDE	-24.6978	-24.4311	-24.5736	-24.475594	-24.4199	-23.972083	-22.78333	-24.0833	-24.13333	-24.1705	-24.372203	-24.679647	-24.239067	-24.651028
LONGITUDE	28.5553	28.4593	28.7387	27.770875	27.9273	27.726481	30.33806	28.6833	28.33333	28.6155	28.520917	28.531839	28.796611	28.354117
WMA	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo
QUAT	A61B	A61H	A61D	A42B	A42D	A42G	A80C	A61J	A50C	A61J	A61H	A61B	A61J	A61A
MAJOR RIVERS	Limpopo	Mogala kwena	Mogala kwena	Mogol	Mogol	Limpopo	Nzhele	Sterk	Limpopo	Klein sterk	Sterk	Nyl	Mogalakwena	Klein Nyl
TRIBUTARY	Nyl	Sterkrivier	Nyl	Grootspruit	Grootfontein spruit	Mogol	Mufungudi	Klein Sterk	Lephalala		No Name	No Name	Sterkrivier	no name
ECOREGION	8.01	7.03	8.01	6.01	6.01	6.01	2.04	7.02	6.01	6.01	7.02	8.01	7.02	7.03
GEOMORPH ZONE	E	C	F	D	C	D	C	E	D	B			E	
ALTITUDE	1100	1264	1100	1500	1516	900	1060	1086	1280	1623		1200	1135	1200
FISH														
ABEN														
AJOH	1		3			1							1	1
AKAT														
AMAR						1								
AMOS									1					
AURA				1			1					1		
BAFR														
BANN						1								
BBIF	1		3		1	1		1	1	1	1			1
BBRI	1			1	1						1		1	1
BEUT														
BIMB														
BMAR			3	3		1	1		3			1	1	3
BMAT														
BNEE							1							
BPAL													1	
BPAU	1	1	1	3		1		1		1	1	1	1	1
BPOL														
BRAD						1								
BTOP														
BTRE														
BTRI	1	3	1			1	1	1			1	1	1	
BUNI		1	3			1	1	1			1	1	1	
BVIV												1		
CCAR (E)				1										
CFLA						1							1	1
CGAR	1	3	1	1		3		1	1		1	1	1	
CPAR														
CPRE													1	
CTHE					1									
GCAL														
GIUR														
GGIU														
HVIT														
LCON						1								
LCYL			1			1			1			1	1	
LMAC(E)														
LMOL						1						1	1	
LROS														
LRUD														
MACU						1								
MBRE									3				1	
MMAC			3			3		1						
MSAL (E)				1										
OMOS	1	1	1	1		1			3		1	1	1	1
ONIL (E)														
OPER														
PCAT														
PWES						1								
PPHI	1	1	1	1		1		1	3		1	1	1	1
SINT						1								
SZAM														
TREN						3							1	
TSPA		3		3		1			1			3		

MAP OF WMA 1 (LIMPOPO) FISH SITES



WMA 2: LUVUVU TO LETABA

FROC SITE CODES	2LF1	2LF2	2LF3	A9LUVU-GWEIR	A9LUVU-BOTSO	A9LUVU-SHIDZ	A9LUVU-BOBOM	2LF8	2LF9	2LF10	A9LATO-CABBA	2LF25	A9DZIN-FORES	2LF31
LATITUDE	-23.1033	-23.1378	-22.8717	-23.10850	-22.78750	-22.63550	-22.42150	-23.08500	-22.84360	-22.97390	-23.07450	-23.04170	-22.98417	-23.01470
LONGITUDE	30.1217	30.9004	30.8187	30.38767	30.84850	30.95833	31.21220	30.17500	30.74190	30.60310	30.32117	30.21810	30.33417	30.39830
WMA	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba
QUAT	A91B	B90F	B90B	A91F	A91H	A91J	A91K	A91C	A91H	A91F	A91D	A91D	A91E	A91E
MAJOR RIVERS	Limpopo	Olifants	Shingwedzi	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Limpopo	Luvuvhu	Luvuvhu	Luvuvhu	Luvuvhu
TRIBUTARY	Luvuvhu	Shingwedzi	Mphongolo	Luvuvhu	Luvuvhu	Luvuvhu	Luvuvhu	Luvuvhu	Luvuvhu	Luvuvhu	Latonyanda	Latonyanda	Dzindi	Dzindi
ECOREGION	3.01	3.03	3.03	3.01	3.03	2.04	1.01	3.01	3.03	3.02	3.01	3.01	2.04	3.01
GEOMORH ZONE	D - Upper Foothills	E -Lower Foothills	E -Lower Foothills	E -Lower Foothills	E -Lower Foothills	E - Lower Foothills	F - Lowland River	D - Upper Foothills	F - Lowland River	E -Lower Foothills	E -Lower Foothills	D - Upper Foothills	C - Transitional	D - Upper Foothills
ALTITUDE	765	476	446	584	442	375	232	709	455	490	619	752	717	574
FISH														
AAEN							1							
ABEN	3			3	3			3	3	1	3	3		
AJOH							1							
AMAR		1			1	1	3							
AMOS	3	1		1	1	1	1	1	1	1	3	3	1	3
AURA	1			1	1	1		1	1	1	1	1	1	1
BFRI		1	1		3	1	1	1						
BANN		1			1	1	1	1	1	1				
BBIF														
BEUT	1			1	1			1	1	1	1		3	
BIMB		1			1	1	1		3					
BLIN	1			1				1		1	1		3	3
BMAR	1	1	3	1	1	1	1	1	1	1	1	1	1	1
BMAT		1												
BNEE	1			1				1	1		1	1	1	1
BPAU	1	1	3	1			1	1	1	1	1	1	1	1
BPOL														
BRAD		1	3	3	3	1	1	1	3	1				
BTOP		2	3	3	1	1	1		1	1				
BTRI	1	1	3	1	1	1	1	1	1	1	1			3
BUNI	1	1		1	1	1	1	1	1	1	1			1
BVIV	1	1	3	1	1	1	1	1	1	1	1			3
CCAR (E)	1													
CGAR	1	1	1	1	1	1	1	1	1	1	1			
CPAR		1			1	1	1	1	1	1				
CPRE	3			1	1	1	1	1	1	1	1		1	1
CSWI					1		1		1	2				
GCAL					1	1	1		1					
GGIU		1			1	1	1		1	1				
HVIT					3	1	1		1					
LCON					3	1	1							
LCYL	3	1	1	1	1	1	1	1	1	1	1			1
LMAC(E)														
LMOL	1	1	1	1	1	1	1	1	1	1	1			1
LROS		1	1		1	1	1	1	1	1				
LRUD		1	1		3	1	1							
MACU	3	1		1	1	1	1	1	1	1	1			
MBRE	1	1	3	1	1	1	1	1	1	1	3			
MMAC	3				1	1	1	1	1	1	1	3		3
MSAL (E)	1													
OMOS	1	1	1	1	1	1	1	1	1	1		1		3
OMYK (E)											3			
ONIL (E)							1							
OPER				1	3			1	1	1			1	3
PCAT	3				1	1	1	1	1	1	3	3		3
PPHI	1		3	1	1			1	1	1	1	1		3
SINT		1		1	1	1	1	1	1	1				
SZAM		1			3		1		1	3				
TREN	1	1	3	1	1	1	1	1	1	1	3			
TSPA	1			1	1	1		1	1	1	1	1		3

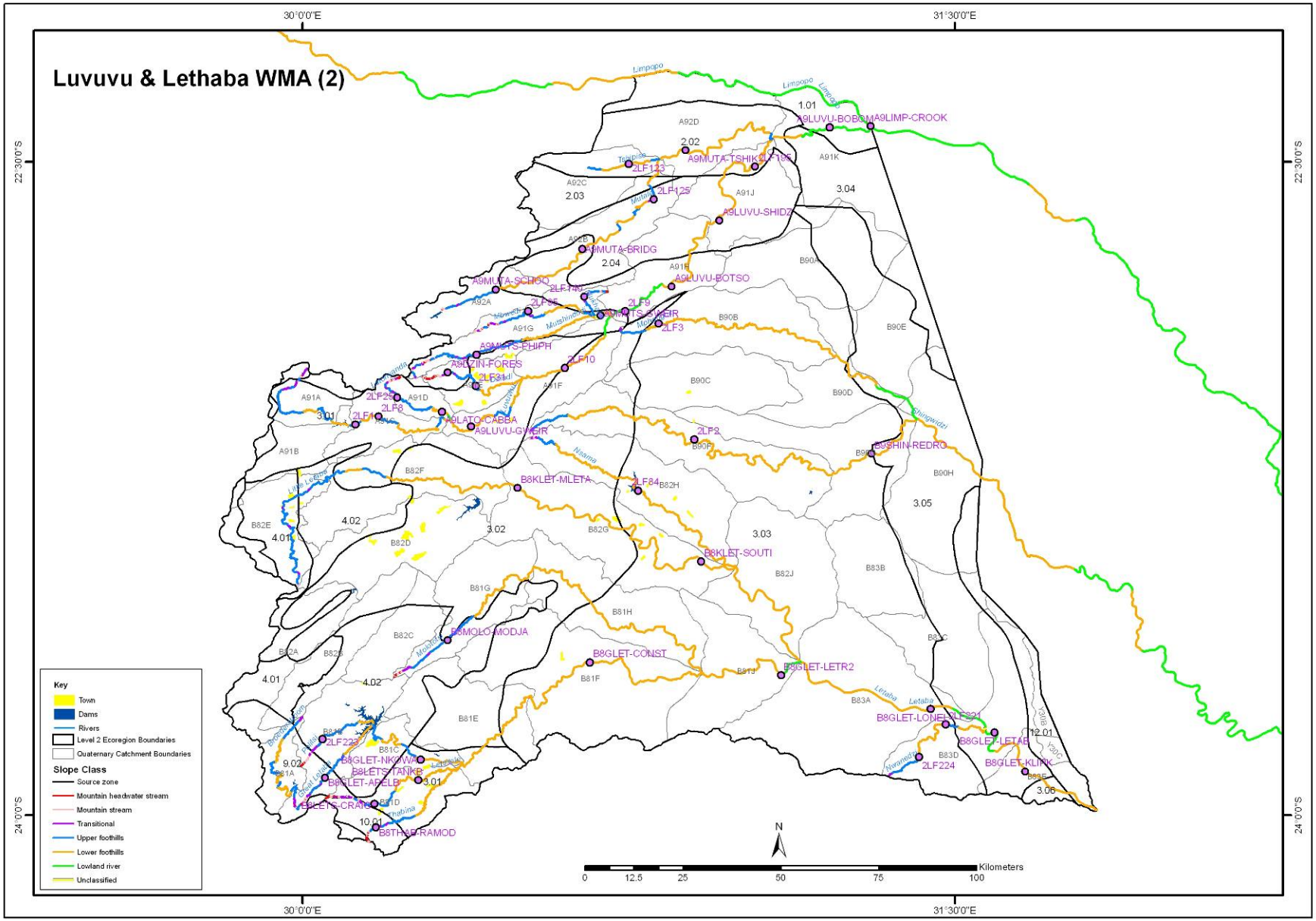
WMA 2: LUVUVU TO LETABA CONTINUED

FROC SITE CODES	A9MUTS-PHIPH	A9MUTS-GWEIR	A9MUTA-SCHOO	A9MUTA-TSHIK	A9MUTA-BRIDG	B8GLET-APELB	B8GLET-NKOWA	B8GLET-LETR2	B8GLET-LONEL	B8GLET-KLIPK	B8GLET-CONST	B8GLET-LETAB	B8LETS-CRAIG	B8LETS-TANKB
LATITUDE	-22.94333	-22.85333	-22.79400	-22.47400	-22.70100	-23.91493	-23.87266	-23.67916	-23.75680	-23.89990	-23.64938	-23.80983	-23.97416	-23.92
LONGITUDE	30.40000	30.6855	30.44490	30.88050	30.64330	30.05218	30.27150	31.10000	31.44350	31.66170	30.660639	31.590806	30.165833	30.266667
WMA	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba
QUAT	A91G	A91G	A92A	A92D	A92B	B81B	B81C	B81J	B83A	B83E	B81F	B83D	B81D	B81D
MAJOR RIVERS	Luvuvhu	Luvuvhu	Luvuvhu	Luvuvhu	Luvuvhu	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Groot Letaba	Groot Letaba
TRIBUTARY	Mutshindudi	Mutshindudi	Mutale	Mutale	Mutale	Groot Letaba	Groot Letaba	Groot Letaba	Groot Letaba	Groot Letaba	Groot Letaba	Groot Letaba	Letsitele	Letsitele
ECOREGION	2.04	2.04	2.04	2.02	3.03	9.02	3.01	3.03	3.03	3.05	3.03	3.05	3.01	3.01
GEOMORH ZONE	C - Transitional	E - Lower Foothills	D - Upper Foothills	E - Lower Foothills	E - Lower Foothills	D - Upper Foothills	E - Lower Foothills	F - Lowland River	E - Lower Foothills	E - Lower Foothills	E - Lower Foothills	F - Lowland River	D - Upper Foothills	E - Lower Foothills
ALTITUDE	753	474	644	333	554	836	548	326	278	216	434	254	649	544
FISH														
AAEN														
ABEN		3	3	3	3	3	3	3			1	3	3	3
AJOH														
AMAR				3				3	3	1		3		
AMOS		1	1	1	1	3	3	1	3	3	1	3	3	3
AURA	1	1	1	1	1	1							1	3
BFRI		1		3				1	1	1	1	1		
BANN				1			1	1	1	1	1	1		
BBIF		1												
BEUT	1	1	1		1	3	1				1		1	1
BIMB				3				1	1	1	1	1		
BLIN		1	1		1	1	1							3
BMAR	1	1	1	1	1	1	1	1	1	1	1	1	1	1
BMAT														
BNEE		1	1		1								1	3
BPAU			1	1	1	1	1		3			1		3
BPOL											1			
BRAD			1	1	1			1	1	1	1	1		
BTOP		1					1	1	1	1	1	1		3
BTRI		1	1	1	1		1	1	1	1	1	1	1	1
BUNI	1	1	1	1	1		1	1	1	1	1	1	1	1
BVIV		1	1	1	1		1	1	1	1	2	1	3	1
CCAR (E)														
CGAR	1		1	1	3		1	1	1	1	1	1		1
CPAR		1		1			1	1	1	1	1	1		1
CPRE	1	1	1	1	1	1	1	1			1		1	1
CSWI		1						1	3	3	1	3		
GCAL		1		3				3			1			
GGIU		1		3				1	1	1	1	1		3
HVIT				3				1	1	1	3	1		
LCON				3				3	1	1	3	1		
LCYL		1	1	1	1	1	1	1	1	1	1	1	3	1
LMAC(E)	1													
LMOL		1	1	1	1	1	1	1	1	1	1	1	3	1
LROS				1			1	1	1	1	1	1		1
LRUD				1			1	1	1	1	1	1		3
MACU		1	1	1	1	1	1	1	1	1	1	1	1	1
MBRE		1	3		3		1	1	1	1	1	1		1
MMAC		1	1	1	1	1	3	1	1	1	1	1	1	3
MSAL (E)	1					3								
OMOS	1	1	3	2	1		1	1	1	1	1	1	1	1
OMYK (E)														
ONIL (E)														
OPER		1	1										3	
PCAT		1	1	1	1		3		3	1	3	3	3	3
PPHI		1	3	1	3	1	1				1	1	1	1
SINT		1		3				1	1	1	1	1		3
SZAM				3				1	1	1	1	1		3
TREN	1	1	1		1	1	1	1	1	1	1	1		1
TSPA	1		1	1	1	1							3	1

WMA 2: LUVUVU TO LETABA CONTINUED

FROC SITE CODES	B8THAB-RAMOD	B8KLET-MLETA	B8KLET-SOUTI	2LF84	B8MOLO-MODJA	B9SHIN-REDRO	A9LIMP-CROOK	2LF95	2LF123	2LF125	2LF140	2LF195	2LF221	2LF223	2LF224
LATITUDE	-24.02780	-23.2495	-23.41783	-23.25520	-23.59916	-23.1707	-22.4189	-22.843	-22.5054	-22.5867	-22.81028	-22.51113333	-23.7914	-23.825	-23.86667
LONGITUDE	30.16940	30.494667	30.91617	30.77180	30.33417	31.3078	31.3063	30.51833	30.75	30.8078	30.64778	31.04046667	31.4782	30.04583	31.41667
WMA	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba	Luvuvhu Letaba
QUAT	B81D	B82G	B82G	B82H	B81G	B90G	A91K	A91G	A92C	A92B	A91G	A91J	B83D	B81B	B83D
MAJOR RIVERS	Letsitele	Groot Letaba	Groot Letaba	Groot Letaba	Groot Letaba	Olifants	Limpopo	Mutshindudu	Mutale	Luvuvhu	Mutshindudu	Limpopo	Groot Letaba	Letaba	Letaba
TRIBUTARY	Thabina	Klein Letaba	Klein Letaba	Nsama	Molototsi	Shingwedzi		Mbwedi	Tshipise	Mutale	Mukhase	Luvuvhu	Nwanedzi	Politsi	Nwanedzi
ECOREGION	10.01	3.02	3.03	3.03	4.02	3.03	1.01	2.04	2.02	2.04	3.03	2.02	3.03	4.02	3.03
GEOMORH ZONE	C - Transitional	E - Lower Foothills	E - Lower Foothills	E - Lower Foothills	D - Upper Foothills	E - Lower Foothills	F - Lowland Rivvers	D - Upper Foothills	E - Lower Foothills	D - Upper Foothills	C - Transitional	E - Lower Foothills	E - Lower Foothills	D - Upper Foothills	D - Upper Foothills
ALTITUDE	838	493	375	447	620	320	276	627	401	412	568	282	281	883	337
FISH															
AAEN							1								
ABEN	3									3				3	
AJOH							1								
AMAR						1	3					1			
AMOS	3					1	1	1		1		1		3	
AURA	1							1			1	1		3	
BFRI		1	1			1	1					1	1		
BANN			1			1	1					1	1		1
BBIF															
BEUT	1							1			1			3	
BIMB						1	1		1			1	1		
BLIN	3							1						1	
BMAR	1	1	1	1		1	1	1	1	1		1		3	
BMAT						1									
BNEE	1							1		1	1			1	
BPAU	1		1			1	1	1				1		1	
BPOL															
BRAD		1	1			1	1			3		1	1		1
BTOP		1		1	3	1	1					1	1		1
BTRI	1	1	1	1	1	1	1	1			1	1	1		
BUNI		1	1	1	3	1	1	1		1	1	1	1		
BVIV	1	1	1	1	1	1	1	1	1	1		1			
CCAR (E)		1		1											
CGAR	1	1	1	1	1	1	1	1		1		1	1	3	
CPAR		1	1	3		1	1					1			
CPRE		3					1	1		1		1		3	
CSWI		3					1								
GCAL		1	1				1					3			
GGIU		1				1	1					1			
HVIT						1	1					1			
LCON						1	1			1		1			
LCYL	1	1	3	1		1	1	1	1	1		1		3	
LMAC(E)															
LMOL	1	1	1	1		1	1	1		1		1		3	
LROS		1	1	1	3	1	1			1		1			
LRUD		1	1	1	3	1	1			3			1		
MACU				1		1	1	1	1	1	1	1		3	
MBRE		1	1	1	3	1	1	3				1	1	3	1
MMAC							1	1	1	1		1			
MSAL (E)		1			3										
OMOS	1	1	1	1	3	1	1			1	1	1	1		1
OMYK (E)															
ONIL (E)							1					1			
OPER	3									3	1				
PCAT	1						1	1		1		1			
PPHI	3	1	1	1	3					1		1		3	
SINT		1				1	1			2		1			
SZAM		1				1	1					1			
TREN		1	1	1		2	1	1				1	1		
TSPA	3	1						1		1				3	

MAP OF WMA 2 (LUVUVU TO LETABA) FISH SITES



WMA 3 CORCODILE (WEST) & MARICO

FROC SITE CODES	A2APIE-DEOND	A2BIER-AMAND	A2BUFF-KOMAN	A2EDEN-LEEUW	A2ELAN-KLIPB	A2ELAN-HOOGE	A2ELAN-RIETS	A2HART-KAMEE	A2HENN-HENNO	A2HEX-KROON	A2HEX-BUFFE	A2HEX-PAARD	A2HEX-ROOIW	A2JUKS-RIETF	A2MAGA-MALON	A2PIEN-IFR2	A2PIEN-KLIPD	A2PIEN-MURRA	A2PIEN-BAVIAA	A2PIEN-IFR4
INCORPORTATED SITES		3CWF67						3CWF43	3CWF109 3CWF51	3CWF6 3CWF4 3CWF5		3CWF7			3CWF60 3CWF115			3CWF106	3CWF9	
WMA	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico
QUAT	A23E	A24F	A24G	A23A	A22A	A22E	A22F	A23A	A21H	A22H	A22G	A22H	A22J	A21C	A21F	A23L	A23B	A23B	A23A	A23J
LATITUDE	-25.6835	-24.8369	-24.83417	-25.67828	-25.72656	-25.44686	-25.33489	-25.65286	-25.82603	-25.6967	-25.93359	-25.60828	-25.52135	-25.9097	-26.0252	-25.1206	-25.38847	-25.51481	-25.67766	-25.125
LONGITUDE	28.18719	27.29088	28.224783	28.40167	26.72044	26.89442	27.2909	28.31172	27.989417	27.3072	27.33057	27.288972	27.37527	27.9482	27.5639	27.787766	28.31164	28.31611	28.36223	27.944
MAJOR RIVERS	Crocodile	Crocodile	Pienaars	Pienaars	Crocodile	Crocodile	Crocodile	Pienaars	Apies	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile
TRIBUTARY	Apies	Bierspruit	Buffel spruit	Edendales pruit	Elands	Elands	Elands	Hartbeess pruit	Hennops	Hex	Hex	Hex	Hex	Jukskei	Magalies	Pienaars	Pienaars	Pienaars	Pienaars	Pienaars
ECOREGION	8.05	8.06	7.03	7.05	7.04	8.06	8.05	9.03	7.06	8.05	7.04	8.05	8.05	11.01	7.06	8.05	8.05	9.03	7.05	8.05
GEOMORPH ZONE	E	E	D	D	E	E	E	E	E	E	D	E	E	D	D	E	E	E	D	F
ALTITUDE	1235	946	1246	1268	1325	1068	1118	1236	1267	1152	1387	1095	1054	1289	1502	974	1082	1132	1251	1003
FISH																				
AJOH																				
AKAT																				1
AMOS				3	3	3	3							3		3	3	3	3	3
AURA					3						3				3					
BAEN (T)								1	1											
BANO								1	1						1					
BBRI			1																	
BMAR	1		1	3	1	1	3		1	1		1		3	1	1	3	3	1	1
BMAT							3									3	3	3	3	
BMOT					1						1				1					
BPAL																				
BPAU		1	1	3	1	1	3	3	1	1		1	1	3		1	3	1	1	1
BPOL					3				1					3						
BTRE																1				
BTRI	1	1	1			1	3	3	1	1		1	1				3	3		1
BUNI	1	1		3			3		1	1		1				1	3	1	1	1
CAUR																				
CCAR (E)	1			3			3	1								3	3	3	3	3
CFLA		1	1	3												3	3	3	3	3
CGAR	1	1	1	3	1	1	3	1	1	1		1	3	1		1	3	3	1	3
CPAR																	3			1
CPRE	1			3	3				3					3	3	3		3	3	
CTHE			1																	
GAFF (E)	1																			
LCYL	1					311	3		3	3			3			3		3	3	3
LMOL	1			3		1	1		3	3			1			1	3	3	3	1
MACU				3													3	3		
MBRE		1		3			3									3	3	3		3
MMAC																				
MSAL (E)							3													
OMOS	1	1		3		1	3	1	1	1		1	1			3	3	3	1	3
OMYK (E)																				
OPER														3						
PPHI	1	1	1	3	1	1	1	1	1	1	3	1	1	3	3	1	3	3	1	1
SINT																				
SZAM																				
TREN																				
TSPA	1	1	1	3	1	1	3	1	1	1	3	1	3	3	3	1	3	1	1	1

WMA 3 CORCODILE (WEST) & MARICO CONTINUED

FROC SITE CODES	A2PLAT-NOODS	A2SKEE-UITKO	A2STER-RIETF	A2STER-SWART	A2SUND-BUFFE	A2SUND-WATER	A2VING-KAREE	A2ROSE-CONFL	A2CROC-BUFFE	A2CROC-BENAL	A2CROC-ROOIB	A2CROC-ELAND	A2CROC-SOUTP	A2CROC-ATLAN	A2CROC-DEKRO	A3MARI-DERDE	A3GMAR-DOORN	A3KMAR-NOOIT	D4MOLO-UPPER	A3NGOT-DINOK
INCORPORTATED SITES	3CWF70	3CWF94			3CWF10 3CWF11	3CWF68			3CWF14 3CWF69	3CWF13 3CW19	3CWF62	3CWF57 3CWF95			3CWF87	3CWF20 3CWF63	3CWF39	3CWF37 3CWF38		
WMA	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico
QUAT	A23G	A21G	A21K	A21K	A24H	A24H	A24G	A21J	A24B	A24H	A24J	A21E	A21J	A24A	A21J	A32D	A31B	A31E	D41A	A10A
LATITUDE	-24.90608	-25.8931	-25.83352	-25.66762	-24.53805	-24.63017	-24.6614	-25.57097	-24.93443	-24.64163	-24.2151	-25.94639	-25.559	-25.20597	-25.66742	-24.6503	-25.5637	-25.50543	-25.85762	-25.45528
LONGITUDE	28.257967	27.7638	27.38848	27.47315	27.640817	27.605783	27.9065	27.76995	27.548433	27.368117	26.899183	27.87878	27.7276	27.557861	27.791306	26.409767	26.40535	26.20622	25.82882	25.85377
MAJOR RIVERS	Pienaars	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Limpopo	Limpopo	Limpopo	Crocodile	Limpopo	Limpopo	Limpopo	Groot Marico	Groot Marico	Marico	Molopo	Groot Marico
TRIBUTARY	Platrivier	Skeer poort	Sterk stroom	Sterk stroom	Sundays	Sundays	Vingerkraal se Loop	Rose spruit	Crocodile	Crocodile	Crocodile	Crocodile (west)	Crocodile	Crocodile	Crocodile	Crocodile		Klein Marico	Oranje	Ngotwane
ECOREGION	8.01	7.06	7.05	8.05	1.03	7.03	8.05	7.04	8.05	7.03	1.04	11.01	7.04	7.04	8.05	7.01	7.04	7.04	11.09	11.09
GEOMORPH ZONE	D	C	C	E	D	E	E	E	F	F	F	D	D	F	E	F	E	E	E	B
ALTITUDE	1119	1468	1425	1139	1035	961	1137	1090	933	1059	871	1322	1084	956	1130	921	1083	1115	1389	1342
FISH																				
AJOH									3	3	3		3	3	1					
AKAT																				
AMOS				3					3	3	3			3		3	3	3		
AURA		1	1														1			
BAEN (T)																			1	
BANO		1										1								
BBRI																			1	
BMAR		1		3	1	1	3	1	1	3	1	3	1	1	1	1	1	1		
BMAT									3	1										
BMOT			1															1		
BPAL																3				
BPAU	1			3	1	1	1	3	1	1	1	3	3	1	1	1	3	1	1	3
BPOL												3					3	1		
BTRE																	3			
BTRI	1			3	1	1	1	3	1	1	1		3	3	3	1		1		3
BUNI	1			3	3	1	1	3	1	1	1		3	3	1	1	1	3		3
CAUR																				
CCAR (E)										1	1									
CFLA				3					3				3	1						
CGAR	1			3	1	1	1	3	1	1			3	3	1	1	1	3		
CPAR						1				1	1									
CPRE		3										1	1	1	1		1	1		
CTHE																				
GAFF (E)																				
LCYL					3	3				1	3			1	3		3			
LMOL				3	1	1			3	1	1			1	3		1			
MACU											1					3				
MBRE	1			3		1			3	1	1			3		1	1			
MMAC											1									
MSAL (E)																			1	
OMOS		1		3		1	1	3	1		1		3	3	3	1	1			
OMYK (E)												3								
OPER																				
PPHI	1	3		3	3	3	3	3	1	1	1	3	1	1	1	1	3	3	1	3
SINT									3	1	1					3				
SZAM																1				
TREN																			1	
TSPA	3	3		3	1	1	1	3		1		3	1	3	1	1	3	3		3

WMA 3 CORCODILE (WEST) & MARICO CONTINUED

FROC SITE CODES	A3NGOT-PUANE	A3KMAR-MOLEM	A3KARE-RAILW	D4MOLO-MODIM	A3KAAL-GROOT	A3KAAL-RIETS	3CWF1	3CWF100	3CWF104	3CWF107	3CWF108	3CWF11	3CWF110	3CWF111	3CWF112	3CWF114	3CWF12	3CWF15	3CWF16	3CWF24
INCORPORTATED SITES			3CWF40		3CWF46, 3CWF47 3CSF 48									3CWF113 3CWF 49					3CWF17 3CWF64 3CWF 65	
WMA	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico
QUAT	A10A	A31C	A31D	D41A	A31A	A31A	A23D	A23B	A23E	A23A	A23A	A24H	A21B	A23A	A23A	A21A	A24C	A23H	A24J	A23L
LATITUDE	-25.4292	-25.74665	-25.54722	-25.85936	-25.78362	-25.77697	-25.7322	-25.35968	-25.63	-25.62311	-25.65082	-24.6842	-25.8885	-25.77107	-25.84904	-25.96482	-24.80682	-24.8575	-24.3966	-25.1289
LONGITUDE	25.86717	25.97365	26.088917	25.449722	26.37925	26.4334	28.1715	28.412958	28.189089	28.36786	28.341447	27.46897	28.2264	28.404967	28.455542	28.417831	27.43925	27.91088	27.08977	27.6342
MAJOR RIVERS	Groot Marico	Klein Marico	Klein Marico	Molopo	Groot Marico	Groot Marico	Crocodile	Pienaars	Apie rivier	Crocodile	Crocodile	Crocodile	Sesmyl spruit	Crocodile	Crocodile	Sesmyl spruit	Limpopo	Pienaars	Limpopo	rocodile wes
TRIBUTARY	Ngotwane	Mole maneloop	Karee spruit	Oranje	Kaaloog se loop	Kaaloog se loop	Apies	Boeken houtspruit		Pienaars rivier	Pienaars rivier	Limpopo	Hennops	Pienaars	Pienaars	Hennops	Crocodile	Tooyspruit	Crocodile	Pienaars
ECOREGION	7.04	11.09	7.04	29.01	7.04	11.09	7.05	8.05	8.05	9.03	9.03	8.06	7.06	7.05	7.05	11.01	8.06	8.05	1.04	8.05
GEOMORPH ZONE	D	E	D	E	Not Classified	Not Classified	D	E	D	E	E	E	E	E	D	D	F	D	F	F
ALTITUDE	1236	1422	1185	1206	1488	1346	1281	1085	1199	1220	1225	922	1448	1320	1372	1577	922	1124	888	955
FISH																				
AJOH	3																1			
AKAT																				
AMOS			3				3	3	3					3	3					
AURA					1	3														
BAEN (T)			1																	
BANO							3						3	3	3	3				
BBRI					1															
BMAR			3			3	3		3	3		1	3	3	3				1	
BMAT			1							3										
BMOT					1	3														
BPAL								3												
BPAU	3	3	3	3			3	3	3	3		1	3	3	3		1	1	1	1
BPOL										3										
BTRE																				
BTRI	3		3				3	3	3			1	3	3	3		1	1	1	
BUNI	3		3				3	3	3		3	1	3	3	3		1	1	1	1
CAUR													3							
CCAR (E)		3							1	3			3				1			
CFLA			3						3	3										
CGAR	3	3	3	3		3	1		1	3		1	3	3	3	3	1	1	1	3
CPAR												1							1	
CPRE						3	3			3			3	3	3					
CTHE																				
GAFF (E)									1				3							
LCYL						3													3	
LMOL						3	3		3	3		1		3	3		1	1		
MACU																			1	
MBRE			3				3	1			3	1		3	3		1		1	1
MMAC																			1	
MSAL (E)		3						3												
OMOS	3		3				1		1	3		1		3	3		1	1	1	
OMYK (E)																				
OPER																				
PPHI	3	3	3	3		3	3	1	3	3	3		1	3	3	3	1	3	1	3
SINT																			1	
SZAM																				
TREN																				
TSPA	3	3	3	3	3	3	3	3	3	3			3	3	3	3	1	1		3

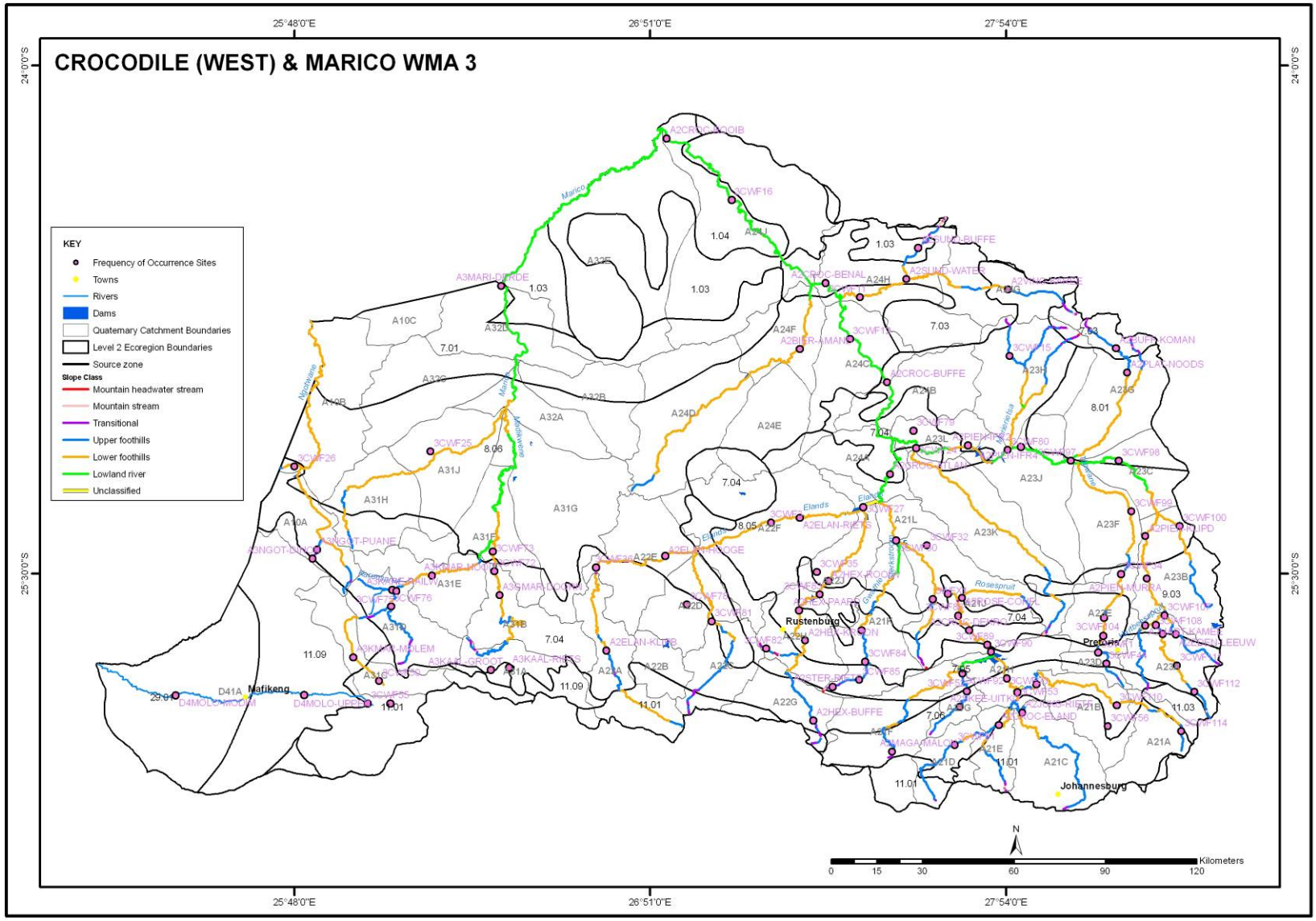
WMA 3 CORCODILE (WEST) & MARICO CONTINUED

FROC SITE CODES	3CWF25	3CWF26	3CWF27	3CWF3	3CWF30	3CWF32	3CWF34	3CWF35	3CWF36	3CWF44	3CWF50	3CWF52	3CWF53	3CWF54	3CWF55	3CWF56	3CWF72	3CWF73	3CWF75	3CWF76
INCORPORTATED SITES	3CWF71						3CWF103 3CWF105 3CWF2		3CWF74		3CWF77							3CWF33	3CWF41	
WMA	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico
QUAT	A31J	A10B	A22J	A22F	A21L	A21J	A23E	A22J	A22E	A23D	A31C	A21G	A21H	D41A	D41A	A21B	A31B	A31F	A31D	A31D
LATITUDE	-25.139	-25.18333	-25.3031	-25.34892	-25.401	-25.41667	-25.5008	-25.4953	-25.4818	-25.7655	-25.81667	-25.84778	-25.85	-25.88333	-25.88333	-25.95	-25.49261	-25.4347	-25.55089	-25.59694
LONGITUDE	26.2016	25.8	27.4786	27.206267	27.5756	27.66667	28.2396	27.3414	26.6895	28.1956	26.05	27.78361	27.93333	26.08333	26.01667	28.2	26.390019	26.385686	26.101686	26.084947
MAJOR RIVERS	Marico		Crocodile west	Crocodile	Crocodile west	Crocodile	Crocodile	Hex	Crocodile	Crocodile	Klein Marico	Crocodile west	Limpopo	Molopo	Molopo	Hennops	Crocodile	Crocodile	Marico	Marico
TRIBUTARY	Sandsloot	Ngotwane	Elands	Elands	Elands	No Name	Apies	Khibitswane	Elands	Apies	Malomane	Skeerpoort	Crocodile	Oranje	Oranje	Sesmyl spruit	Marico	Grppt Marico	Klein Marico	Klein Marico
ECOREGION	8.06	7.04	8.05	8.05	8.05	8.05	9.03	8.05	7.04	7.05	11.01	7.06	7.06	11.01	11.01	7.06	7.04	8.06	7.04	7.04
GEOMORPH ZONE	E	E	D	E	E	Not Classified	E	Not Classified	E	D	E	D	E	Not Classified	E	Not Classified	E	E	D	E
ALTITUDE	1011	1114	1058	1016	1006		1150		1224	1393	1470	1267	1237		1471		1065	1038	1179	1212
FISH																				
AJOH																				
AKAT							1													
AMOS			3	3	3		3			3							3	3		
AURA												3	3				3			
BAEN (T)													3	1					1	
BANO										3						3				
BBRI															1					
BMAR			3	1	3	3	3		3	3		3	3			3	3	3	1	3
BMAT			3	1																
BMOT																				
BPAL														3						
BPAU	3	3	3	2			3	3	3	3	1			3	1		3	1	1	3
BPOL													3							
BTRE																				
BTRI	3			1		3	3	3	3	3							3	3	1	3
BUNI	3		3	1	3	3	3	3	3	3							3			3
CAUR																				
CCAR (E)			3	3	3						1									
CFLA			3		3			3									3	1	1	3
CGAR	3	3	3	1	3	3	3		3	3	1						3	3		3
CPAR																				
CPRE										3		3	3				3	3		
CTHE																				
GAFF (E)																				
LCYL			3	3																
LMOL			3	1		3	3			3		3	3					3		
MACU																		3		
MBRE			3	1	3		3	3	3								3			
MMAC																				
MSAL (E)			3								1				1					
OMOS			3	1	3		3		3	3							3			
OMYK (E)																		1		
OPER													3							
PPHI	3	3	3	1	1	3	3	3		3	1		3	3	1	3	3	1	1	3
SINT				1																
SZAM																				
TREN																				
TSPA	3	3	3	1	1	3	3		3	3	1	3	3	3	3	3	3	1		3

WMA 3 CORCODILE (WEST) & MARICO CONTINUED

FROC SITE CODES	3CWF78	3CWF79	3CWF80	3CWF81	3CWF82	3CWF83	3CWF84	3CWF85	3CWF86	3CWF89	3CWF90	3CWF91	3CWF92	3CWF93	3CWF97	3CWF98	3CWF99	3WFX1
INCORPORTATED SITES						3CWF8											3CWF29 3CWF31 3CWF101 3CWF102	
WMA	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico	Crocodile (W)Marico
QUAT	A22D	A23L	A23J	A22C	A22H	A22J	A21K	A21K	A21J	A21J	A21H	A21D	A21F	A21H	A23J	A23C	A23F	A21J
LATITUDE	-25.59115	-25.07722	-25.1349	-25.64056	-25.72133	-25.56126	-25.76009	-25.8131	-25.62333	-25.70962	-25.73028	-26.0052	-25.79448	-25.8085	-25.16688	-25.1666	-25.31626	-25.57488
LONGITUDE	26.958061	27.626589	27.9052	27.030761	27.191506	27.351036	27.484275	27.4664	27.759061	27.844794	27.856061	27.7484	27.771381	27.903097	28.090439	28.2329	28.269756	27.68335
MAJOR RIVERS	Selon Rivir	Pienaars	Crocodile	Elands	Elands	Elands	Crocodile	Crocodile	Limpopo	Limpopo	Limpopo	Crocodile		Limpopo	Crocodile	Crocodile	Pienaars	Crocodile
TRIBUTARY	No Name	Sedikwane	Pienaars	Selon river	Waterkloof Spruit	HexRivier	Sterk stroom	Sterk stroom	Crocodile	Crocodile	Crocodile	Rietspruit	Magalies River	Crocodile	Pienaars	Pienaars	Apies Rivier	Karee spruit
ECOREGION	7.04	7.04	8.05	7.04	7.05	7.04	8.05	7.05	7.04	7.05	7.05	7.06	7.05	7.06	8.05	8.01	8.05	8.05
GEOMORPH ZONE	Not Classified	Not Classified	F	Elands	D	E	D	D	E	E	D	D	D	E	F	F	E	E
ALTITUDE				1115	1469	1074	1223	1324	1085	1145	1183		1200	1189	1015	1029	1055	1061
FISH																		
AJOH																		
AKAT															3	3	3	
AMOS							3	3	3	3					3	3	3	3
AURA												3	3					
BAEN (T)																		
BANO												1						
BBRI																		
BMAR		3		3			3	3	3	3		1	3	1	3		3	1
BMAT										3								
BMOT					3													
BPAL																		
BPAU	3	3	3	3		3	1	3		3			3	1	3	3	3	1
BPOL												1	3					
BTRE																		
BTRI		3	3	3		3	3			3			3	1	3	3	3	1
BUNI	3		3	3			1	3	3	3	3		3	1	3		3	1
CAUR																		
CCAR (E)																		
CFLA							3	3	3	3							3	3
CGAR			3	3		3	3	3	3	3				1	3		3	3
CPAR															3	3		
CPRE									3			3	3	3				3
CTHE																		
GAFF (E)																		
LCYL						3											3	
LMOL			3			3	3		3	3				1			3	3
MACU																		
MBRE		3					1											3
MMAC																		
MSAL (E)																		
OMOS				3		3			3	3				1			3	3
OMYK (E)																		
OPER																		
PPHI	3			3	3	3	3	3	3	3		1	3	1			3	1
SINT																		
SZAM																		
TREN																		
TSPA	3			3	3	3	3	3	3	3		1	3	3			3	3

MAP OF WMA 3 (CROCODILE (WEST) & MARICO) FISH SITES



WMA 4 OLIFANTS

FROC SITE CODE	B1OLIF-VANVY	B1OLIF-WITBA	B1KOLI-MIDDE	B1KOLI-CYCAD	B2WILG-SPITZ	B2WILG-KRANS	B2BRON-BRONK	B3OLIF-LOSKO	B3OLIF-DEWAG	B3OLIF-VARKE	B3ELAN-RUSTE	B3ELAN-CULLI	B3ELAN-RHENO	B3ELAN-FLAGB	B3MOSE-GROEN	B4STEE-TIGER
WMA	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants
QUAT	B11B	B11G	B12C	B12E	B20H	B20J	B20D	B32A	B32C	B32J	B31C	B31A	B31G	B31J	B32H	B41D
LATITUDE	-26.10031	-26.00867	-25.84502	-25.673583	-25.781	-25.622	-25.80586	-25.495667	-25.371	-25.049	-25.303	-25.5962	-25.115	-24.90241	-25.159	-25.1577
LONGITUDE	29.31011	29.27738	29.61777	29.3168	28.886	29	28.80736	29.254111	29.395	29.414	28.464	28.5637	28.957	29.34284	29.328	29.84033
MAJOR RIVERS	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Wilge	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Elands	Olifants
TRIBUTARY			Klein Olifants	Klein Olifants	Wilge	Wilge	Bronkhorstspruit				Elands	Elands	Elands	Elands	Moses	Steelpoort
ECOREGION	11.02	11.02	11.02	9.06	9.06	9.06	11.01	9.03	9.03	8.04	8.05	9.03	8.04	8.04	9.03	9.03
GEOMORPH ZONE	F	F	E	D	E	D	F	E	E	E	E	D	E	E	E	D
ALTITUDE	1538	1523	1549	1308	1433	1400	1372	1367	1203	983	1059	1330	919	874	906	1063
FISH																
ABEN																
AKAT																
AMAR																
AMOS												3			3	
ANAT																
AURA			1	1												1
BAEN (T)																
BFRI																
BANN																
BANO	1	1	1	1	1	1	1	1	1	1						1
BBIF								3								
BEUT																
BIMB																
BLIN								1	1	1						
BMAR					1	1		1	1	1	1	1	1	1	1	1
BMAT				1				1	1	1	1		1	1	1	
BMOT																
BNEE	1	1	1	1	1	1	1	1	1	1						
BPAU	1	1	1	1	1	1	1	1	1	1	1	1		1	1	
BPOL	1	1	1	1	1	1	1	1	1	1				1		
BRAD																
BTOP																
BTRE																
BTRI	3	3	3	3	1	1	1	1	1	1	1	3	1	1	1	1
BUNI								1	1	1	3	3	1	1		
BVIV									1	1						
CCAR (E)	1	1	1	1	1		1									
CGAR	1	1	1	1		1		1	1	1	1	1		1	1	
CPAR								1	1	1			1			
CPRE				1				1	1	1	1	1			1	1
CSWI										1			1			
GAFF (E)	1	1	1	1												
GCAL																
GGIU									1	1						
HMOL(E)										1				1		
HVIT																
LCON																
LCYL					1	1		1			1		1	1		
LMOL								1	1	1	3		1	1	1	
LROS								1	3	1			1	1		
LRUD																
LUMB (T)	1	1	1	1												
MACU								1	1	1	3		1	1		
MBRE								1	1	1	1		1	1		
MDOL (E)																
MMAC								1	1	1	1		1			
MSAL (E)	1	1	1	1										1		
OMOS								1	1	1	1		1	1	1	
OPER																
PCAT																
PPHI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
SINT								1	1	1			1	1		
SZAM								1	1	1			1	1		
TREN								1	1	1	3					
TSPA	1	1	1	1				1	1	1	1	1			1	1

WMA 4 OLIFANTS CONTINUED

FROC SITE CODE	B4STEE-IFR09	B4STEE-IFR10	B4SPEK-BURGE	B4SPEK-DEBAD	B4LAKE-CONFL	B5OLIF-VANDE	B5OLIF-DIAMD	B6ORIG-BLYDE	B6BLYD-INDED	B6BLYD-MORIA	B6BLYD-ESSEX	B6TREU-LONDE	B7OLIF-STELL	B7OLIF-PENGE	B7OLIF-PHOSA	B7OLIF-MAMBA
WMA	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants
QUAT	B41J	B41K	B42H	B42E	B41A	B51C	B52G	B60H	B60A	B60J	B60J	B60C	B71D	B71F	B71J	B73C
LATITUDE	-24.7682	-24.4965	-24.66037	-24.83877	-25.61611	-24.673611	-24.283	-24.5099	-25.0006	-24.409	-24.325	-24.71	-24.239	-24.35276	-24.2571	-24.044
LONGITUDE	30.1594	30.399	30.33702	30.389	30.02425	29.460833	29.76008	30.7505	30.72403	30.827	30.832	30.82	30.081	30.30576	30.8273	31.221
MAJOR RIVERS	Olifants	Olifants	Steelpoort	Steelpoort	Steelpoort	Olifants	Olifants	Blyde	Olifants	Olifants	Olifants	Blyde	Olifants	Olifants	Olifants	Olifants
TRIBUTARY	Steelpoort	Steelpoort	Spekboom	Spekboom	Lakenvlei spruit			Orighstad	Blyde	Blyde	Blyde	Treur				
ECOREGION	9.03	10.01	9.03	9.03	9.06	8.03	9.03	10.01	10.01	3.07	3.07	10.01	9.03	10.01	3.07	3.03
GEOMORPH ZONE	E	E	D	D	E	F	F	D	D	E	E		E	E	E	E
ALTITUDE	792	617	697	878	1838	789	734	1112	1425	520	454	1173	727	628	395	437
FISH																
ABEN						3	3						3	3	3	3
AKAT							1									
AMAR						3	3						3	3	3	1
AMOS	3	3				3	3			1	1		3	3	3	1
ANAT									1							
AURA	3	3		1								1				
BAEN (T)																
BFRI																1
BANN						1				1	1				3	1
BANO				1	1											
BBIF																
BEUT		1	1	3				1		1	1		1	1	3	
BIMB															3	1
BLIN		1	1	1						1	1					
BMAR	1	1	1	1		1	1	1		1	1	1	1	1	1	1
BMAT						1	1	1		1	1		1	1	3	1
BMOT												1				
BNEE	1	1	1	1	1			1				1				
BPAU	3	3	1	1		1	1	1		1	1		1	1		1
BPOL				1	1			1		1	1					
BRAD																1
BTOP																1
BTRE									1			1				
BTRI	1	1	1	1		1	1	1		1	1		1	1	1	1
BUNI	1	1	1	1		1	1			1	1		1	1	1	1
BVIV						1	1						1	1	3	1
CCAR (E)													1	1		
CGAR	1	1	1	1		1	1	1		1	1		1	1		1
CPAR	1	1				1	1						1	1	1	1
CPRE	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1
CSWI	1	1				1	1						1	1	1	1
GAFF (E)																
GCAL															3	
GGIU																1
HMOL(E)						1	1						1	1		
HVIT															3	1
LCON																1
LCYL			1	1		1	1	1		1	1		3	3	1	1
LMOL	1	1	1	1		1	1	1		1	1		1	1	1	1
LROS						1	1						1	1		1
LRUD						3	3						3	3		1
LUMB (T)																
MACU						1	1	1		1	1		1	1	3	1
MBRE						1	1						3	3	1	1
MDOL (E)								1								
MMAC		1	1	3		1	1	1		1	1		1	1	3	1
MSAL (E)																
OMOS	1	1	1	1		1	1	1		1	1		1	1	1	1
OPER	1	1	1	1		3	1						3	3	1	1
PCAT						3	3	1		1	1		3	3	1	1
PPHI			1	1	1	1	1	1		1	1		1	1	1	1
SINT						1	1						1	1	3	1
SZAM						1	1						1	1	1	1
TREN						1	1	1					1	1	3	1
TSPA	1	1	1	1	1	3							1	1		

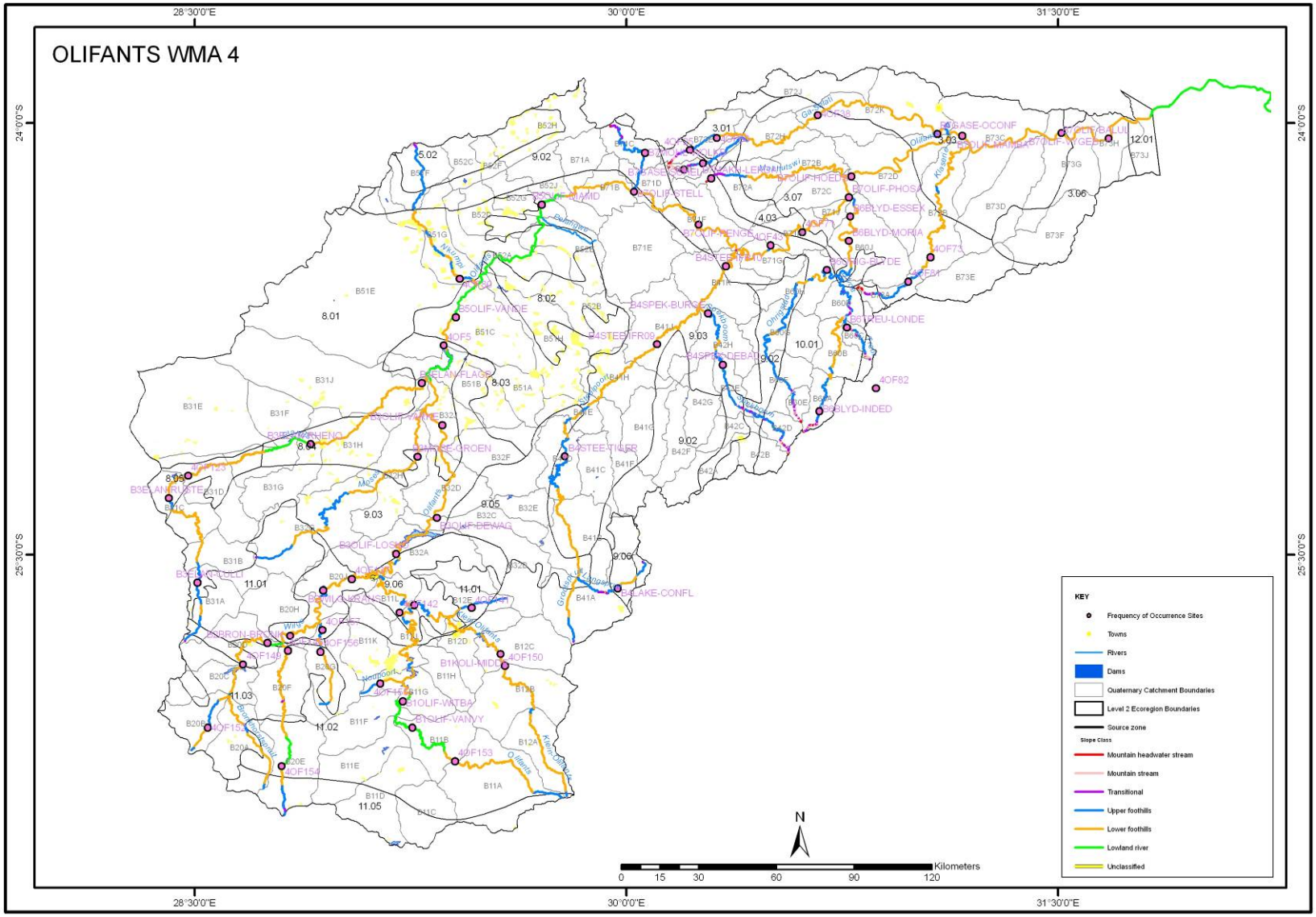
WMA 4 OLIFANTS CONTINUED

FROC SITE CODE	B7OLIF-VYGEB	B7OLIF-BALUL	B7GASE-MIDDL	B7GASE-SCHEL	B7GASE-OCONF	B7MOHL-WOLKB	B7MAKH-LEKGA	B7OLIF-HOEDS	4OF25	4OF5	4OF38	4OF43	4OF60	4OF71	4OF73
WMA	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants
QUAT	B73G	B73H	B72F	B72F	B72K	B71C	B72A	B72D	B72E	B51E	B72K	B71G	B71C	B71H	B73B
LATITUDE	-24.034	-24.0527	-24.16085	-24.13923	-24.037	-24.103	-24.19122	-24.1842	-24.0931	-24.7722	-23.9726	-24.424	-24.0515	-24.37917	-24.4657
LONGITUDE	31.566	31.73002	30.25416	30.32013	31.134	30.119	30.34875	30.8358	30.2747	29.42	30.7196	30.555	30.369	30.66472	31.11
MAJOR RIVERS	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Ga-Selati	Olifants	Olifants	Olifants	Olifants	Olifants	Blyde
TRIBUTARY			Ga-Selati	Ga-Selati	Ga-Selati	Mohlapitse	Makhutswe		Ngwabitsi		Ga-Selati		Mohlapitse		Klaserie
ECOREGION	3.03	3.06	10.01	10.01	3.03	9.02	10.01	3.07	10.01	8.04	3.07	10.01	9.02	4.03	3.07
GEOMORPH ZONE	E	E	C	D	D	D	C	E	D	E	E	D	C	E	E
ALTITUDE	224	284	938	745	326	800	780	404	724	955	469	532	1167	466	514
FISH															
ABEN	3	3			3	3		3	**3**	3		3	3	3	3
AKAT						1							1		
AMAR	3	1			3	3		3	**3**	3		3	3	3	3
AMOS	3	1	1	1	3	3	1	3	**3**	3	3	3	3	3	3
ANAT															
AURA			1	1		1	1		**1**				1		
BAEN (T)															
BFRI	3	1			1										
BANN	1				1			3		1	1				
BANO															
BBIF			1	3		1	1						1		
BEUT			1	1	1	1	1	3	**1**			3	1		1
BIMB	1	1			3			3							3
BLIN				1		1							1		1
BMAR	1	1	1	1	1	1	1	1	**3**	1	3	1	1	3	1
BMAT	1	1						3		1		3			
BMOT															
BNEE			1	1	1	1	1		**1**				1		
BPAU	1	1			1				**1**	1	1	1			1
BPOL															
BRAD	3	1													
BTOP	1	1			1			1	**1**			1		3	
BTRE													1		
BTRI	1	1	1		1	1	1	1	1	1	1		1	3	1
BUNI	1	1			1	1			1	1	1	1	1		1
BVIV	1	1	3		1	1	3	1	1	1	1	1	1	3	1
CCAR (E)															1
CGAR	1	1	1		1	3		1	1	1	1	1		3	1
CPAR	1	1			1		1	1		1	3	1		1	3
CPRE	1	1	1	13	1	1	1	1	1	1		1	1	1	1
CSWI	1	1			1			1		1		1		1	
GAFF (E)															
GCAL								3			1				1
GGIU	1	1			1										
HMOL(E)										1		1			
HVIT	1	1			3			3							3
LCON	1	1			1			3							
LCYL	1	1	1	3	1	1	1	1	1	1		3	1	3	1
LMOL	1	1	3		1	3	3	1	1	1	1	1	3	3	1
LROS	1	1			1	1		3		1	3	3	1	3	3
LRUD	1	1			1			1		3	3	3		3	3
LUMB (T)															
MACU	1	1			1	1		3		1	3	1	1		1
MBRE	1	1			1	3		3	1	1	1	3			1
MDOL (E)															
MMAC	1	1			3	1	3	3		1		1	1		1
MSAL (E)															1
OMOS	1	1	3		1	1	3	1	1	1	1	1	1	3	1
OPER		1	1	1		3	1	1		3		3	3	3	
PCAT	1	1			3	1	3	3		3		3	1		1
PPHI	1	1	1	1	1	1	1	3	1	1	1	1	1	3	1
SINT	1	1			3			3		1	3	1			1
SZAM	1	1			3			3		1	3	1			3
TREN	13	1			1			1		1	3	1		3	1
TSPA			3	3	1	3	3		3	3	3	3	3	3	

WMA 4 OLIFANTS CONTINUED

FROC SITE CODE	4OF80	4OF81	4OF82	4OF123	4OF137	4OF141	4OF142	4OF148	4OF149	4OF150	4OF152	4OF153	4OF154	4OF155	4OF156	4OF157
WMA	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants
QUAT	B51G	B73A	B73A	B31D	B20J	B12E	B11J	B20F	B20D	B12B	B20B	B11A	B20E	B11G	B20G	B20G
LATITUDE	-24.54056	-24.55	-24.921	-25.2253	-25.58333	-25.68333	-25.7	-25.832	-25.8801	-25.885	-26.1	-26.2172	-26.2337	-25.946017	-25.83605	-25.761617
LONGITUDE	29.47444	31.03333	30.9212	28.5311	29.1	29.51667	29.26667	28.8782	28.7227	29.6325	28.6	29.4583	28.8564	29.1986167	28.9909	28.99785
MAJOR RIVERS	Olifants	Klaserie	Blyde	Olifants	Olifants	K -Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Wilge	Wilge
TRIBUTARY	Doring	Motlaseli	Klaserie	Elands	Wilge	Keurom spruit		Wilge	Bronkhorst spruit	Klein Olifants	Bronkhorst spruit		Wilge	Noupoort	Zaalboom spruit	Zaalboom spruit
ECOREGION	8.01	3.07	10.02	8.05	9.06	11.01	9.06	11.03	7.05	11.02	11.03	11.02	11.02	11.02	11.03	9.06
GEOMORPH ZONE	D	D	D	E	E	D	E	E	E	E	E	E	F	E	D	D
ALTITUDE	826	582	847	1031	1228	1481	1352	1413	1456	1554	1555	1578	1554	1535	1432	1346
FISH																
ABEN																
AKAT																
AMAR																
AMOS		3	3				1									
ANAT																
AURA		1	1			1	1									1
BAEN (T)								1								
BFRI																
BANN																
BANO					1	1				1	1	1	1	1	1	3
BBIF																
BEUT		1	1				1									
BIMB																
BLIN							1									
BMAR		1	1	1	1		1									3
BMAT				1			1									
BMOT																
BNEE		1	1			1					1					
BPAU	1	3		1	1	1	1	1	1	1	1	1	1	3		
BPOL								1	1	1		1				3
BRAD																
BTOP																
BTRE																
BTRI	1	1	1	1	1	1	1	1	1	3				3		3
BUNI				3												
BVIV	1	3														
CCAR (E)														1		
CGAR	1	1	1	1			1				1			1	1	
CPAR																
CPRE		1	1	1	1		1	1	1					1		3
CSWI																
GAFF (E)										1		1		1		
GCAL																
GGIU																
HMOL(E)																
HVIT																
LCON																
LCYL		3		1				1	1							3
LMOL		1	1	1												
LROS																
LRUD																
LUMB (T)																
MACU				1												
MBRE				1												
MDOL (E)																
MMAC				1												
MSAL (E)										1		1		1		
OMOS	1	3		1												
OPER																
PCAT																
PPHI	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
SINT																
SZAM																
TREN				3												
TSPA		3	3	1	2		1			1		1		1		3

MAP OF WMA 4 (OLIFANTS) FISH SITES



WMA 5 INKOMATI

Please note the following: The sites coded in ☐ colour are included in the database. Reference species list were identified for them, however due to time constraints the FROC was not undertaken.

FROC SITE CODE	X1KOMA-VAALW	X1KOMA-DVYGE	X1KOMA-SONGI	X1KOMA-TONGA	X1KOMA-CROCC	X2KOMA-UVYGE	X1GLAD-UNSPE	X1TEES-CONFL	X1LOMA-DDRIE	X1BOES-BOESM	X1SEEK-SEEKO	5IF8	5IF24	5IF28	5IF52	5IF270	5IF277	5IF279	5IF310	JE7
INCORPORATED SITES	5IF32, 5IF33 5IF44,5IF29 5IF42,5IF51	5IF 26, JE3, 5IF47, , 5IF48, 5IF26, 5IF367	5IF297,5IF30 2 5F307, 5IF308	5IF243, je9,5IF246, 5IF233,	5IF204, 5IF199, 5IF201, je10,	5IF14, 5IF267		5IF304, 5IF38, 5IF306, 5IF295,	5IF239, 5IF16, je12, 5IF234, 5IF236, 5IF376	5IF314, 5IF27, JE2, 5IF366	5IF282, 5IF290, 5IF378,5IF2815		5IF264, 5IF271	5IF34			5IF287, 5IF274, 5IF273		5IF313	
LATITUDE	-26.0342	-25.8543	-26.0388	-25.6670	-25.4412	-25.8486	-25.7708	-26.0193	-25.6494	-26.0879	-25.9482	-26.1225	-25.8432	-25.9621	-26.1511	-25.8928	-25.9167	-25.9370	-26.1167	-26.0980
LONGITUDE	29.9293	30.3766	31.0031	31.8013	31.9787	30.5647	30.6264	30.8520	31.6232	30.0796	30.5610	30.2309	30.0533	30.2149	30.5263	30.2350	30.9500	30.2350	30.9833	31.3986
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	5
QUAT	X11A	X11H	X12K	X13J	X13L	X11H	X11J	X12F	X14H	X11B	X12C	X12A	X11D	X11E	X12E	X11E	X12J	X11E	X12K	X13D
MAJOR RIVERS	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati
TRIBUTARY							Gladde spruit	Teespruit	Lomati	Boesmans pruit	Seekoei spruit	Buffels spruit	Klein Komati	Swart spruit	Theespruit		Mtsoli	Swart Spruit	Mlondozi	
ECOREGION	11.02	10.03	10.03	3.07	12.01	10.03	10.03	10.03	3.07	11.02	10.03	11.04	11.02	10.03	11.04	10.03	10.03	10.03	10.03	3.07
GEOMORPH ZONE	E	D	E	E	E	E	D	D	E	E	D	C	D	C	D	E	D	D	D	E
ALTITUDE	1598	1296	745	201	115	1114	1230	847	254	1608	1090	1794	1716	1564	1385	1584	1212	1446	974	393
FISH																				
AAEN																				
ABER					1															
ABRE																				
ALAB			1	1	1				1								3			
AMAR				1	1															
AMOS	3	1	1	1	1	1	3	1	1	3	1						1			1
ANAT		1						1					1				1			
AURA	1	1	1			1	1	1		1	1		1		1	1	1	1	3	
BAFR																				
BFRI					1															
BANN				1	1				1											
BANO	1	1				1	1	1		1	1		1	1	1		1	3	1	
BARG		1	1			1	3	1	1		1			1			1	3	3	
BBRI																				
BEUT				1	1				1											1
BIMB				1	1				1											
BLIN																				
BMAR		1	1	1	1	1	3	1	1		1				1	1	1		1	1
BNEE		1																		
BPAU			1	1	1				1											
BPOL	1	1	1			1	3	1		1	1	1				1	1	1	1	3
BRAD				1					1											
BTOP																				
BTRI				1	1				1										1	1
BUNI				1	1				1											1
BVIV				1	1				1											1
CANO									1											
CBIF			1														1			
CBRE				1	1				1											
CEMA		1	1			3	3	1			1						1			
CFLA																				
CGAR	3	3	1	1	1	3	3	3	1	3										1
CPAR			1	1	1				1										3	1
CPRE	1	1	1	1	1	1	1	1		1	1	1	1		1	1	1	1	1	1
CSWI			1	1	1			1	1		1								1	1
GAFF (E)			1																	
GCAL				1	1				1											
GGIU				1	1				1											
HMOL					1															
HVIT				1	1				1											
KAUR																				
LCON					1															
LCYL				1	1			1	1											1
LMAC (E)				1																
LMOL			1	1	1			1	1								3		3	1
LROS				1	1				1											
LRUD					1															
MACU				1	1				1											1
MBRE				1	1				1											1
MDOL (E)																				
MMAC				1	1				1											
MPUN(E)																				
MSAL (E)	1			1	1					1										
OMOS				1	1				1											1
OMYK (E)			1											1			3			
OPER				1	1				1											1
PWES																				
PCAT				1	1				1											
PPHI	1	1	1	1	1	1	1	1	1	1	1		1	1		1	1	3	1	1
SINT				1	1				1								1			
SMER																				
SORB					1															
STRU (E)																				
SSWI																				
SZAM					1															
TREN				1	1				1											
TSPA	3	1	1		1	1	1	1		3	1					1	1	3	3	
VNEL																				
XHEL																				

FROC SITE CODE	X2CROC-VALYS	X2CROC-UKWEN	X2CROC-DKWEN	X2CROC-RIVUL	X2CROC-DNELS	X2CROC-MALEL	X2CROC-NKONG	X2LUNS-VELOR	X2KAAP-HONEY	X2ELAN-DOORN	X2ELAN-ROODE	X2NKAA-UIFR07	X2HOUT-CROCC	X3NELS-R40RO	X2NSIK-CONFL	X3SABI-SEKUR	X3SABI-SKUKU	X3SABI-NWATI	X3SABI-LEOPA	X3SABI-SPOOR
INCORPORATED SITES		5IF194, 5IF191		5IF193, 5IF197	5IF208, 5IF211	5IF321							5IF183,5IF185 5IF177,5IF172 5IF180, 5IF192				5IF332, 5IF333 5IF113 5IF118	5IF335	5IF342	5IF341
LATITUDE	-25.4935	-25.4098	-25.4521	-25.4273	-25.5020	-25.4827	-25.3950	-25.3100	-25.6495	-25.6310	-25.5680	-25.5932	-25.3837	-25.4297	-25.5133	-24.9869	-24.9633	-25.0591	-24.9767	-25.1600
LONGITUDE	30.1444	30.3135	30.6811	30.7907	31.1834	31.5083	31.9744	30.1470	31.2429	30.3263	30.6667	30.9460	30.7065	30.9655	31.3596	31.2840	31.5600	31.8185	31.7697	32.0000
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT	X21A	X21B	X21E	X22C	X22K	X24D	X24H	X21B	X23H	X21G	X21K	X23B	X22B	X22J	X24C	X31K	X31M	X33B	X33A	X33D
MAJOR RIVERS	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Crocodile (east)	Sabie	Sabie	Sabie	Sabie	Sabie
TRIBUTARY								Lunsklip	Kaap	Elands	Elands	Noord Kaap	Houtbosloop	Nels	Nsikazi					
ECOREGION	9.02	9.04	10.02	4.04	4.04	3.07	12.01	9.02	4.04	10.03	10.02	4.04	10.01	4.04	3.07	3.07	3.07	3.07	3.07	12.01
GEOMORPH ZONE	D	D	E	E	E	E	E	C	D	D	E	D	D	D	D	E	E	E	E	E
ALTITUDE	1863	1224	852	723	489	293	137	2079	465	1383	915	714	827	641	327	387	275	189	377	140
FISH																				
AAEN																				
ABER							1													
ABRE																				
ALAB							1													
AMAR						1	1										1	1	1	1
AMOS					1	1	1		1		1	1			1	1	1	1	1	3
ANAT		1									1		1							
AURA		1	1	1	1					1	1	1	1	1		1				
BAFR																				
BFRI						1	1									1		1	3	1
BANN						1	1								1	1	1	1	1	1
BANO	1	1		1				1		1	1		1	1						
BARG		1	1	1							1	1	1			1				
BBRI																				
BEUT					1	1			1						1	1	1	1	1	
BIMB						1	1									1	1	1	1	1
BLIN																				
BMAR				1	1	1	1		1			1	1	1	1	1	1	1	1	1
BNEE		1											1							
BPAU						1	1						1		1	1	1	1	1	
BPOL											1									
BRAD						1	1								1	1	1	1	1	1
BTOP						1									1	1	1	1	1	
BTRI					1	1	1		1			1			1	1	1	1	1	1
BUNI					1	1	1		1			1			1	1	1	1	1	1
BVIV					1	1	1								1	1	1	1	1	1
CANO																1	1	1	1	
CBIF		1	1	1							1		1	1						
CBRE						1	1													
CEMA																				
CFLA																				
CGAR			1	1	1	1	1		1		1			1	1	1	1	1	1	1
CPAR						1	1		1			1			1	1	1	1	1	1
CPRE		1	1	1	1	1	1		1		1	1	1	1						
CSWI						1	1		1			1			3	1	1	1	1	1
GAFF (E)																				
GCAL							1										1	1		1
GGIU						1	1										1	1	1	1
HMOL							1													
HVIT						1	1									1	1	1	1	1
KAUR		1																		
LCON						1	1									1	1	1	1	1
LCYL					1	1	1		1							1	1	1	1	1
LMAC (E)																				
LMOL				1	1	1	1		1						1	1	1	1	1	1
LROS						1	1		1						1	1	1	1	1	1
LRUD						1	1								1		1			1
MACU				1		1	1				1	1			1	1	1	1	1	1
MBRE						1	1					1			1	1	1	1	1	1
MDOL (E)																				
MMAC					1	1	1		3						1	1	1	1	1	1
MPUN(E)																				
MSAL (E)										1	1									
OMOS				1	1	1	1		3		1				1	1	1	1	1	1
OMYK (E)								1		1										
OPER					1	1	1		1							1	1	1	1	
PWES																				
PCAT					1	1	1									1	1	1	1	1
PPHI		1	1			1	1		1	1	1	1	1	1	3	1	1	1	1	1
SINT						1	1								1	1	1	1	1	1
SMER																1	1	1	1	1
SORB																				
STRU (E)																				
SSWI																				
SZAM						1	1								3	1	1	3	3	1
TREN				1	1	1	1		3						1	1	1	1	1	1
TSPA		1	1	1	1	1				1	1					1				
VNEL												1								
XHEL				1	1															

WMA 5 INKOMATI CONTINUED

FROC SITE CODE	X3SAND-ALLAN	X3MOTL-FORES	X3MACM-BRAND	X3MARI-SANDF	X3MUTL-THULA	X3SAND-LONDO	X3SAND-SKUKU	5IF152	5IF163	5IF169	5IF222	5IF245	5IF247	5IF248	5IF252	5IF263	5IF266	5IF325	5IF35	5IF1
INCORPORATED SITES	5IF357, 5IF66 5IF77 5IF351		5IF130	5IF117, 5IF123	5IF 353 5IF71	5IF85, 5IF350	5IF1085IF363			5IF162					5IF254			5IF326, 5IF181		
LATITUDE	-24.7317	-24.6625	-25.0300	-25.0081	-24.7336	-24.7910	-24.9670	-25.1333	-25.2832	-25.3030	-25.6213	-25.6984	-25.7295	-25.7295	-25.7624	-25.8363	-25.8415	-25.3672	-26.0152	-26.0274
LONGITUDE	31.2658	30.9328	31.0260	31.1147	31.2325	31.5230	31.6270	31.0833	30.9379	30.3921	31.4982	31.8337	30.9847	30.3443	31.2477	31.1521	30.8677	31.8683	30.0067	30.4288
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT	X32G	X32B	X31D	X31G	X32F	X32H	X32J	X31J	X22E	X21C	X14F	X13K	X23F	X11F	X14B	X14A	X23E	X24H	X11A	X12A
MAJOR RIVERS	Sabie	Sand	Sabie	Sabie	Sand	Sabie	Sabie	Sabie	Crocodile	Crocodile	Lomati	Komati	Crocodile	Komati	Lomati	Komati	Suid Kaap	Crocodile (east)	Komati	Komati
TRIBUTARY	Sand	Motlamogatsana	Mac-Mac	Marite	Mutlumuvi	Sand	Sand	White Waters	Sandspruit	Alexander spruit	Mhlambanyathi	Mambane	Suidkaap	Bankspruit	Ugu-ugulo	Lomati	Queens		Vaalwaterspruit	Buffel
ECOREGION	3.07	10.02	4.04	4.04	3.07	3.07	3.07	3.07	3.07	9.02	3.07	3.07	4.04	10.02	4.05	4.05	4.05	3.06	11.04	10.03
GEOMORPH ZONE	E	B	E	D	E	E	E	D	D	D	D	E	E	D	D	C	C	E	E	D
ALTITUDE	415	981	517	493	431	312	253	609	892	1865	493	259	691	1850	1149	1174	1337	167	1610	1388
FISH																				
AAEN																				
ABER																				
ABRE																				
ALAB																		1		
AMAR							1						1					1		
AMOS			1	1		1	1			1		1		3				1		2
ANAT		1		1						1					1					
AURA		1	1	1				1	1		3	1	1	3	1	3	1			2
BAFR																				
BFRI	1				1	1	1													
BANN	1				1	1	1											1		
BANO									1	1				1	1	1				
BARG										1			1						2	
BBRI		1	1													1				
BEUT	1		1	1	1			1	1			1	1				1	1		
BIMB						1	1											1		
BLIN																				
BMAR	1		1	1	1	1	1	1	1		1	1	1				1	1		
BNEE										1										
BPAU	1				1	1					3					1		1		
BPOL			1	1										1						2
BRAD	1				1	1	1											1		
BTOP	1				1	1	1											3		
BTRI	1		1	1	1	1	1	1	1		3	1	1			1	1	1		
BUNI	1		1	1	1	1	1	1	1				1				1	1		
BVIV	1				1	1	1									1		1		
CANO	1	1	1	1	1	1	1	1	1											
CBIF																				
CBRE																				
CEMA																				
CFLA																				
CGAR	1		1		1	1	1					1	1	1			1	1		
CPAR	1			1	1	1	1				3							1		
CPRE												1	1				1	1		2
CSWI	1		1		1	1	1											1		
GAFF (E)																				
GCAL	1				1		1									1				
GGIU	1				1	1	1											1		
HMOL																				
HVIT						1												1		
KAUR										1										
LCON																		1		
LCYL	1		1	1	1		1	1			1	1						1		
LMAC (E)																				
LMOL	1		1	1	1	1	1	1	1		3	1						1		
LROS						3	1											1		
LRUD									1									3		
MACU	1			1	1	1	1	1	1									1		
MBRE	1				1	1	1											1		
MDOL (E)													1							
MMAC	1		1	1	1	1	1	1										1		
MPUN(E)																				
MSAL (E)																				
OMOS	1			1	1	1	1	1				1					1	1		
OMYK (E)										1										
OPER	1		1	1		3	1				3		1				1	1		
PWES																				
PCAT	1		1	1	1	1	1											1		
PPHI	1		1		1	1	1	1	1					3				1		
SINT	1				1	1	1											1		
SMER	1				1	1	1													
SORB																				
STRU (E)										1										
SSWI													1							
SZAM						3												3		
TREN	1				1	1	1										1	1		
TSPA				1						1										
VNEL			1	1													1			
XHEL																				

WMA 5 INKOMATI CONTINUED

FROC SITE CODE	5IF15	5IF25	5IF45	5IF203	5IF210	5IF221	5IF227	5IF257	X3SABI-BRAND	5IF268	5IF284	5IF288	5IF293	5IF294	5IF298	JE1	JE8	X3SABI-CASTL	5IF58	5IF60
INCORPORATED SITES	JE4, 5IF368	5IF259				5IF377, 5IF223, 5IF224				5IF269	5IF285, JE5, 5IF369	5IF289	5IF299					5IF143, 5IF141	5IF56, 5IF55, 5IF53	5IF359, 5IF258
LATITUDE	-25.8457	-25.8300	-25.9169	-25.4500	-25.5000	-25.6167	-25.6333	-25.8000	-25.0300	-25.8667	-25.9561	-25.9667	-26.0000	-26.0167	-26.0167	-26.0078	-25.9982	-25.0930	-24.4833	-24.6833
LONGITUDE	30.4681	30.4300	30.0231	31.9333	31.8000	31.6667	31.7833	31.1000	31.0270	30.6667	30.7017	31.0333	31.0667	30.4000	30.9167	30.0267	31.5861	30.7680	31.5000	31.0667
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	5	5	Inkomati	Inkomati	Inkomati
QUAT	X11D	X21G	X11C	X13L	X13L	X14H	X14H	X14A		X11K	X12G	X12J	X12J	X12B	X12H	X11A	X13G	X31A	X40B	X32C
MAJOR RIVERS	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Sabie	Komati	Komati	Komati	komati	Komati	Komati	Vaalwaterspruit	Komati	Sabie	Crocodile	Sand
TRIBUTARY			Witkloofspruit	Ngwedi		Lomati	Lomati					mtsoli river	mtsoli		Sandspruit					Klein Sand
ECOREGION	10.03	10.03	10.03	12.01	3.06	3.07	3.07	10.02	4.04	10.03	10.03	10.03	10.03	10.03	10.03	11.02	3.07	4.04	12.01	3.07
GEOMORPH ZONE	D	E	D	D	E	F	D	D		C	E	E	D	D	E	D	E		Lower Foothills	Upper Foothills
ALTITUDE	1227	1206	1683	166	234	235	208	1399	515	135	926	1021	806	1341	810974	1548	290	1008	447	591
FISH																				
AAEN																				
ABER																				
ABRE																				
ALAB																				
AMAR											2									
AMOS	2								2											
ANAT		1																		
AURA	2	2							1	1	1									
BAFR																				
BFRI																				
BANN				1																
BANO														1						
BARG									2											
BBRI									2									1		
BEUT						1			1									1		2
BIMB				1															1	
BLIN																		1		
BMAR	2	2				1			1	1	1	1	1		1		2			2
BNEE								1												
BPAU					1						1								1	2
BPOL	2								1		1			1		2				
BRAD				1																
BTOP					1															
BTRI						2			2		1	1					2		1	2
BUNI						1	1				1						2	1		2
BVIV				1	1												2			2
CANO									1											2
CBIF													1							
CBRE				1		2														
CEMA											1	1								
CFLA																				
CGAR						2														2
CPAR				1		1					2						2			
CPRE	2	2	2	1						1	1					2	2			
CSWI										1	1			1	1		2			
GAFF (E)											1				1					
GCAL				1	1															
GGIU																				
HMOL																				
HVIT						1														
KAUR																				
LCON						1														
LCYL				1		1			2								2			
LMAC (E)																				
LMOL									3		2						2	1	1	2
LROS						1					1				1			2	1	
LRUD																			1	
MACU						2	1		2									2	1	1
MBRE					1															1
MDOL (E)																				
MMAC				1					2									2	1	1
MPUN(E)																				
MSAL (E)																				
OMOS						2	1										2	2	1	1
OMYK (E)													1							
OPER					1		1		1								2		1	
PWES				1														2		
PCAT																				
PPHI	2		2			2			1		2								1	1
SINT											1	1	1					2		
SMER																				
SORB																				
STRU (E)																				
SSWI																				
SZAM				1																
TREN							1											2	1	1
TSPA									1											
VNEL									1				1							
XHEL																				

WMA 5 INKOMATI CONTINUED

FROC SITE CODE	5IF61	5IF70	5IF73	5IF75	5IF78	5IF81	5IF82	5IF83	5IF84	5IF86	5IF88	5IF95	5IF103	5IF104	5IF105	5IF107	5IF108	5IF112	5IF120	5IF121
INCORPORATED SITES	5IF63, 5IF69	5IF68, 5IF67		5IF76	5IF79, 5IF352	5IF80, 5IF354, 5IF343		5IF74				5IF90, 5IF91, 5IF94				5IF97, 5IF99, 5IF101		5IF109, 5IF100, 5IF96	5IF334	
LATITUDE	-24.6889	-24.7294	-24.7500	-24.7500	-24.7625	-24.7833	-24.7833	-24.7833	-24.8167	-24.8333	-24.8500	-24.8833	-24.9333	-24.9500	-24.9500	-24.9500	-24.9600	-24.9667	-25.0086	-25.0167
LONGITUDE	30.9253	31.1989	31.4167	31.9500	31.1267	31.0833	31.4500	31.5000	31.5500	30.7667	31.9833	31.1000	31.9167	30.9500	31.6000	31.7000	31.1000	31.4000	30.9239	31.0667
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT	X32C	X32G	X32D	X40D	X32F	X32D	X32E	X32H	X32H	X32E	X31M	X31E	X32J	X33C	X31F	X32J	X32J	X31G	X31M	X31C
MAJOR RIVERS	Sabie	Sabie	Sabie		Sabie	Sand	Sabie	Sabie	Sabie		Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie
TRIBUTARY	Sand	Mutlumuvi	Sand		Mutlumuvi	Dwarsloop		Sand	Sand	Umtitse	Msutlt	Merite	Sand		Sand	Sand	Marite		Mac-Mac	
ECOREGION	3.07	3.07	3.07	12.01	3.07	4.04	3.07	3.07	3.07	4.04	3.07	4.04	3.07	12.01	4.04	3.07	3.07	4.04	3.07	4.04
GEOMORPH ZONE	Upper Foothills		Lower Foothills	Lower Foothills	Upper foothills	Upper Foothills	Upper Foothills	Lower Foothills	Lower Foothills	Mountain Stream	Upper Foothills	Lower Foothills	Lower Foothills	Lower Foothills	Upper Foothills	Lower Foothills	Lower Foothills	Upper Foothills	Lower Foothills	Upper Foothills
ALTITUDE	981	449	386	259	514	553	357	329	306	1235	333	799	265	962	273	249	610	325	787	793
FISH																				
AAEN																1				
ABER																				
ABRE																				
ALAB																				
AMAR																				
AMOS		1																		
ANAT						1						1			1					
AURA	1											1							1	
BAFR																1				
BFRI																				
BANN		1	1	1	1		1	1	1		1					1		1	2	
BANO															1			1		
BARG										1		1				1	1			
BBRI		1				1			1			1				1			1	
BEUT		1				1			1									1		
BIMB							1	1	1		1							1	2	
BLIN																	1			
BMAR		1	1		2	1			1		1	1				1		1	2	
BNEE																				
BPAU	1	1			1	1	1	1	1						1	1		1		
BPOL												1								
BRAD		1			1	1	1	1	1		1		1		1	1		1	2	
BTOP																1		1		
BTRI	1	1		1	1	1	1	1			1	1			1	1		1	2	
BUNI	1	1			1	1	1	1	1			1			1	1				
BVIV	1	1	1	1	1		1	1	1							1			2	
CANO				1	1	1						1		1					2	
CBIF																				
CBRE																				
CEMA																				
CFLA																				
CGAR		1			2	1										1				
CPAR				1			1											1	2	
CPRE																			1	
CSWI			1	1					1										2	
GAFF (E)																				
GCAL		1					1								1			1		
GGIU																			2	
HMOL																				
HVIT																			2	
KAUR																				
LCON											1									
LCYL		1			2	1					1					1			2	
LMAC (E)																				
LMOL		1		1	2	1	1		1		1								2	
LROS										1			1						2	
LRUD										1									2	
MACU		1		1	1	1	1			1			1		1	1			2	
MBRE		1		1	1	1	1						1			1			2	
MDOL (E)																				
MMAC			1	1		1	1								1				2	1
MPUN(E)								1												
MSAL (E)																				
OMOS		1		1				1					1					1	2	1
OMYK (E)																				
OPER		1					1					1						1	2	1
PWES													1			1				
PCAT																				
PPHI		1		2	1											1			2	
SINT							1								1	1			2	
SMER	1	1			1	1	1						1		1	1			2	
SORB																				
STRU (E)																				
SSWI																				
SZAM																				
TREN		1		2	1		1						1			1			2	
TSPA								1												
VNEL								1										1		
XHEL																				

WMA 5 INKOMATI CONTINUED

FROC SITE CODE	5IF125	5IF128	5IF133	5IF134	5IF135	5IF138	5IF140	5IF146	5IF148	5IF149	5IF150	5IF153	5IF155	5IF156	5IF178	5IF179	5IF182	5IF187	5IF190	5IF202	5IF206	5IF207
INCORPORATED SITES	5IF124, 5IF127, 5IF132	5IF129, 5IF122, 5IF136	5IF131 5IF137		5IF142				5IF147							5IF184						
LATITUDE	-25.0183	-25.0300	-25.0500	-25.0500	-25.0500	-25.0667	-25.0728	-25.1000	-25.1167	-25.1167	-25.1167	-25.1667	-25.1667	-25.2000	-25.3667	-25.3667	-25.3833	-25.4000	-25.4167	-25.4500	-25.4833	-25.4833
LONGITUDE	31.2050	31.1100	30.7833	30.9833	31.0667	31.0833	30.8506	31.9833	30.7167	30.7333	30.8167	30.8000	31.8833	31.3000	30.4333	30.6917	30.7000	30.4167	30.3167	31.9333	30.9500	31.1833
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT	X31K	X31D	X31K	X31A	X31D	X33A	X31M	X33B	X33D	X31A	X31A	X31J	X24A	??	X21C	X21D	X21C	X21B	X21D	X31L	X22J	X22J
MAJOR RIVERS	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Komati	Crocodile	Crocodile
TRIBUTARY	Sabie		Noord Sand	Klein Sabie						Klein Sabie		White waters	Nsikazi					Lunsklip				
ECOREGION	3.07	4.04	3.07	10.01	4.04	3.07	3.07	3.06	12.01	10.01	10.01	3.07	3.07	3.06	9.02	10.01	9.02	9.04	10.02	3.06	4.04	4.04
GEOMORPH ZONE	Lower Foothills	Upper Foothills	Upper Foothills	Upper Foothills	Upper Foothills	Lower Foothills	Lower Foothills	Upper Foothills	Lower Foothills	Upper Foothills	Upper Foothills			Lower Foothills	Upper Foothills		Upper foothills	Upper foothills	Upper foothills	Lower Foothills	Lower Foothills	Upper Foothills
ALTITUDE	418	489	1137	743	587	709	890	195	1072	1057	1192	1440	204	566	1460	898	836	1380	1223	166	793	639
FISH																						
AAEN																						
ABER																						
ABRE																						
ALAB																						
AMAR																						
AMOS		1																				
ANAT									1		1					1			1			
AURA		1								1			1									
BAFR			1																			
BFRI																						
BANN			1																	1		
BANO			1													1			1			
BARG																1			1			
BBRI		1	1																			
BEUT	1	1			1																	
BIMB									1											1		
BLIN		1																				
BMAR	1	1		1	1																	1
BNEE																						
BPAU									1					1		1					1	
BPOL		1	1		1																	
BRAD																				1		
BTOP																						
BTRI	1	1							1				1									
BUNI			1											1								
BVIV	1												1							1		1
CANO	1	1	1		1		1			1	1		1									
CBIF																1		1				
CBRE																				1		
CEMA																						
CFLA																						
CGAR					1									1								
CPAR	1																			1		
CPRE						1				1									1	1		1
CSWI	1	1	1																			
GAFF (E)																						
GCAL																				1		
GGIU																						
HMOL																						
HVIT																						
KAUR																						
LCON									1													
LCYL		1			1								1							1		
LMAC (E)																						
LMOL	1		1		1																	
LROS																						
LRUD																						
MACU	1		1								1	1										
MBRE																					1	
MDOL (E)																						
MMAC			1																			
MPUN(E)																						
MSAL (E)																						
OMOS		1	1											1						1		1
OMYK (E)			1																			
OPER	1	1	1				1					1									1	1
PWES																						
PCAT																						
PPHI		1							1		1									1		
SINT																						
SMER																						
SORB																						
STRU (E)																						
SSWI																						
SZAM			1																			
TREN																						
TSPA		1																1		1		
VNEL			1			1			1													
XHEL																						

WMA 5 INKOMATI CONTINUED

FROC SITE CODE	5IF215	5IF219	5IF225	5IF231	5IF251	5IF255	5IF280	5IF317	5IF318	5IF331	5IF337	5IF338	5IF340	5IF346	5IF361	5IF365	5IF375	5IF9	5IF10	5IF11
INCORPORATED SITES			5IF226, 5IF229, 5IF237					5IF198, 5IF320	5IF319, 5IF160 5IF161		5IF336		5IF339		5IF65, 5IF64					
LATITUDE	-25.5167	-25.6000	-25.6333	-25.6500	-25.7500	-25.7667	-25.9500	-25.3764	-25.3250	-25.0178	-24.9767	-25.0964	-25.1378	-24.7150	-24.6961	-26.0078	-25.7062	-26.1361	-26.0581	-26.0928
LONGITUDE	31.9333	30.8667	30.6667	31.0833	30.6000	31.2667	30.0833	31.7397	31.8000	31.2500	31.7697	31.8847	31.9389	30.9294	31.2228	30.0267	31.5324	30.2839	30.2758	30.1811
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati				Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT	X13K	X23A	X21H	X23B	X11J	??	X11D	X24F	X24H	X31K	X33A	X33B	X33B	X32A	X32C	X11A	X14G			
MAJOR RIVERS	Komati				Komati		Komati	Crocodile (east)	Crocodile (east)	Sabie	Sabie			Sabie	Sabie	Komati	Komati		Komati	Komati
TRIBUTARY		Noordkaap		Noordkaap	Gladde spruit									Sekgamorago	Sephiriri/Sand	vaalwater spruit	Lomati			
ECOREGION	12.01	4.04	10.02	4.04	10.02	4.05	10.03	3.07	3.07	3.07	3.07	3.06	12.01	10.01	3.07	11.04	3.07			
GEOMORPH ZONE	Lower Foothills	Lower Foothills	Upper foothills	Lower Foothills	Transitional	Mountain Streams	Lower foothills	Lower Foothills	Lower Foothills	Lower Foothills	Lower Foothills	Lower Foothills	Lower Foothills	Transitional	Lower Foothills	Upper foothills	Lower Foothills			
ALTITUDE	160	911	1169	690	1316	954	1528	212	190	421	213	170	158	825	450	1548	294	1709	1784	1722
FISH																				
AAEN																				
ABER																				
ABRE																				
ALAB																				
AMAR									2			2	2							
AMOS			1	1				2	2	2		2	2						2	
ANAT			1											2						
AURA			1	1	1				2	2								2		2
BAFR								2	2			2	2							
BFRI																				
BANN									2	1	2	2								
BANO			1			1			2										2	2
BARG		1	1							2									2	
BBRI																				
BEUT				1					2	2	2	2					2			
BIMB								2	2		2	1	2							
BLIN																				
BMAR								2	2	2	2	2	2		2		2			
BNEE																				
BPAU								2	2	2	2	2	2				2			
BPOL			1													2		2	2	2
BRAD								2	2	2	2	2	2							
BTOP								2	2	2	2	2	2							
BTRI	1							2	2	2	2	2	2		2		2			
BUNI								2	2	1	2	2			2					
BVIV				1				2	2	2	2	1	2		1					
CANO										1	2	2	2	2			2			
CBIF			1																	
CBRE																	2			
CEMA			1																	
CFLA															1					
CGAR								2	2	2	2	2	2		2		2			
CPAR	1							2	2	2	2	2	2				2			
CPRE			1	1	1			2	2	1						2		2	2	2
CSWI	1						1	2	2	2	2	2	2				2			
GAFF (E)																				
GCAL													2							
GGIU								2			2	2	2							
HMOL																				
HVIT								2			2	2	2							
KAUR									2											
LCON								2	2	2		2	2							
LCYL				1				2	2	2	2	2	2							
LMAC (E)																				
LMOL								2	2	2	2	1	2				2			
LROS								2	2	2	2	2	2							
LRUD									2											
MACU								2	2	2	2	2	2		1		2			
MBRE								2	2	2	2	1			2					
MDOL (E)																				
MMAC								2	2	1	2	1	2				2			
MPUN(E)																				
MSAL (E)																				
OMOS								2	2	2	2	2	2		2		2			
OMYK (E)																				
OPER									2	1	2	2	2							
PWES									2		2	2					2			
PCAT																				
PPHI								2	2	2	2	2	2				2			2
SINT								2	2	2	2	2	2							
SMER										2	2	1	2		2					
SORB																				
STRU (E)																				
SSWI																				
SZAM																				
TREN								2	2	2	2	2	2		2					
TSPA									2						1			2		2
VNEL																				
XHEL																				

WMA 5 INKOMATI CONTINUED

FROC SITE CODE	5IF12	5IF13	5IF15	5IF16	5IF17	5IF18	5IF19	5IF23	5IF27	5IF29	5IF34	5IF39	5IF49	5IF50	5IF54	5IF59	5IF62	5IF72	5IF87	5IF89	5IF93
INCORPORATED SITES																					
LATITUDE	-25.9558	-25.8418	-25.6983	-25.9649	-25.8860	-25.8018	-25.9168	-25.8432	-25.9621	-25.4334	-26.0152	-26.0410	-25.8351	-26.1878	-24.4333	-24.6667	-24.6917	-24.7333	-24.8500	-24.8667	-24.8833
LONGITUDE	30.1775	30.5285	31.6194	30.5229	29.9652	30.3989	30.2594	30.0533	30.2149	31.9698	30.0067	29.9678	30.2519	29.8906	32.0000	31.0500	31.0853	31.0333	31.3833	31.0333	31.0500
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT																	X32A	X32D		X40D	
MAJOR RIVERS	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati	Komati		Sabie		Sabie	Sabie	Sabie	Sabie
TRIBUTARY			Lomati?	Lekkerloop	Witkloofspruit	Schoonspruit		Klein Komati	Swartspruit		Vaalwaterspruit	Vaalwaterspruit	Sewefonteinloop		Nwanedzi	Sand					
ECOREGION																	10.01	10.01		12.01	
GEOMORPH ZONE																					
ALTITUDE	1475	1215	334	1160	1692	1332	1412	1716	1564	118	1610	1594	1516	1624	217	647	568	619	476	867	813
FISH																					
AAEN																					
ABER																					
ABRE						2															
ALAB																					
AMAR																					
AMOS													2								
ANAT						2												1			
AURA		2																			
BAFR																					
BFRI																					
BANN			2															1			
BANO	2			2	2			2	2			2		2							
BARG		2									2							1			
BBRI																		1			
BEUT			2															1			
BIMB																					
BLIN																					
BMAR		2	2	2		2												1			1
BNEE																					
BPAU																					
BPOL	2	2								2			2								1
BRAD			2												1						
BTOP																					
BTRI			2												1			1			
BUNI			2													1					
BVIV			2													1					
CANO																				1	
CBIF																					
CBRE																					
CEMA																					
CFLA																					
CGAR			2																		
CPAR																		1			
CPRE	2	2		2		2	2					2	2								
CSWI				2						2											
GAFF (E)																					
GCAL																					
GGIU			2							2											
HMOL																					
HVIT										2											
KAUR																					
LCON																					
LCYL			2													1					
LMAC (E)																					
LMOL			2							2											
LROS														1						1	
LRUD														1							
MACU	2							2								2					
MBRE	2													1		2					
MDOL (E)																					
MMAC	2																1				
MPUN(E)																					
MSAL (E)																					
OMOS								2								2					
OMYK (E)																					
OPER																					
PWES																					
PCAT																					
PPHI	2		2							2						2					
SINT																				1	
SMER																					
SORB																					
STRU (E)																					
SSWI																					
SZAM																					
TREN	2							2								2					
TSPA		2						2												1	1
VNEL																				1	
XHEL																					

WMA 5 INKOMATI CONTINUED

FROC SITE CODE	5IF111	5IF139	5IF144	5IF145	5IF151	5IF154	5IF157	5IF158	5IF159	5IF165	5IF168	5IF170	5IF171	5IF174	5IF176	5IF186	5IF188	5IF189	5IF195	5IF196	5IF200
INCORPORATED SITES																					
LATITUDE	-24.9667	-25.0667	-25.1000	-25.1000	-25.1333	-25.1667	-25.2500	-25.2500	-25.2500	-25.2833	-25.3167	-25.3333	-25.3333	-25.3333	-25.3500	-25.3928	-25.4000	-25.4083	-25.4333	-25.4333	-25.4333
LONGITUDE	31.1000	31.4167	31.2667	31.8500	30.9167	31.1667	30.4667	31.1667	31.6667	31.7000	30.4000	30.3167	30.6333	31.4833	30.6500	30.3020	30.4333	30.4692	30.7167	30.7333	31.9500
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT	X31F			X31K		x22d	X24G	x21c	x24b	X24B				x21c			X21D	X21D	X21E		X13L
MAJOR RIVERS	Sabie	Sabie	Sabie			Sabie		Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Komati		Crocodile	Crocodile	Crocodile	Crocodile	Crocodile	Komati
TRIBUTARY	Marite					Nsikasi	Alexanders pruit	Nsikasi			Klipspruit										
ECOREGION	4.04			3.07		10.01	3.07	9.02	3.07	3.07	9.04	9.04	9.04	9.04	9.02		10.02	10.02	10.02		12.01
GEOMORPH ZONE								???													
ALTITUDE	572	409	495	212	1238	629	1650	603	289	254	1232	1341	954	352	957	1235	1523	1115	1028	849	147
FISH																					
AAEN																					
ABER																					
ABRE																					
ALAB																					
AMAR																					
AMOS											1										
ANAT											1	1	1			1		1			
AURA																			1		
BAFR									1					1							
BFRI																					
BANN						1		1	1	1				1							
BANO					1						1	1					1	1		1	
BARG															1		1				
BBRI	1																				
BEUT																					
BIMB										1											
BLIN								1													
BMAR												1								1	1
BNEE																		1			
BPAU		1				1		1	1												
BPOL																					
BRAD						1		1	1												
BTOP									1												
BTRI						1		1													
BUNI						1		1						1							
BVIV		1							1	1											
CANO	1											1									
CBIF																			1		
CBRE														1							
CEMA																					
CFLA																					
CGAR						1		1				1									
CPAR																					
CPRE							1				1	1	1			1		1	1	1	
CSWI																					
GAFF (E)																					
GCAL										1											
GGIU																					1
HMOL																					
HVIT																					1
KAUR												1						1			
LCON									1	1											1
LCYL						1															1
LMAC (E)																	1				
LMOL									1												
LROS				1			1												1		
LRUD							1														
MACU											1		1								
MBRE													1								
MDOL (E)																					
MMAC																				1	
MPUN(E)																					
MSAL (E)																					
OMOS									1										1		
OMYK (E)																					
OPER																					1
PWES																				1	
PCAT																					
PPHI																			1		
SINT											1										
SMER		1																			
SORB																					
STRU (E)																					
SSWI																					
SZAM	1																			1	
TREN																					
TSPA								1											1		
VNEL			1		1																
XHEL																					

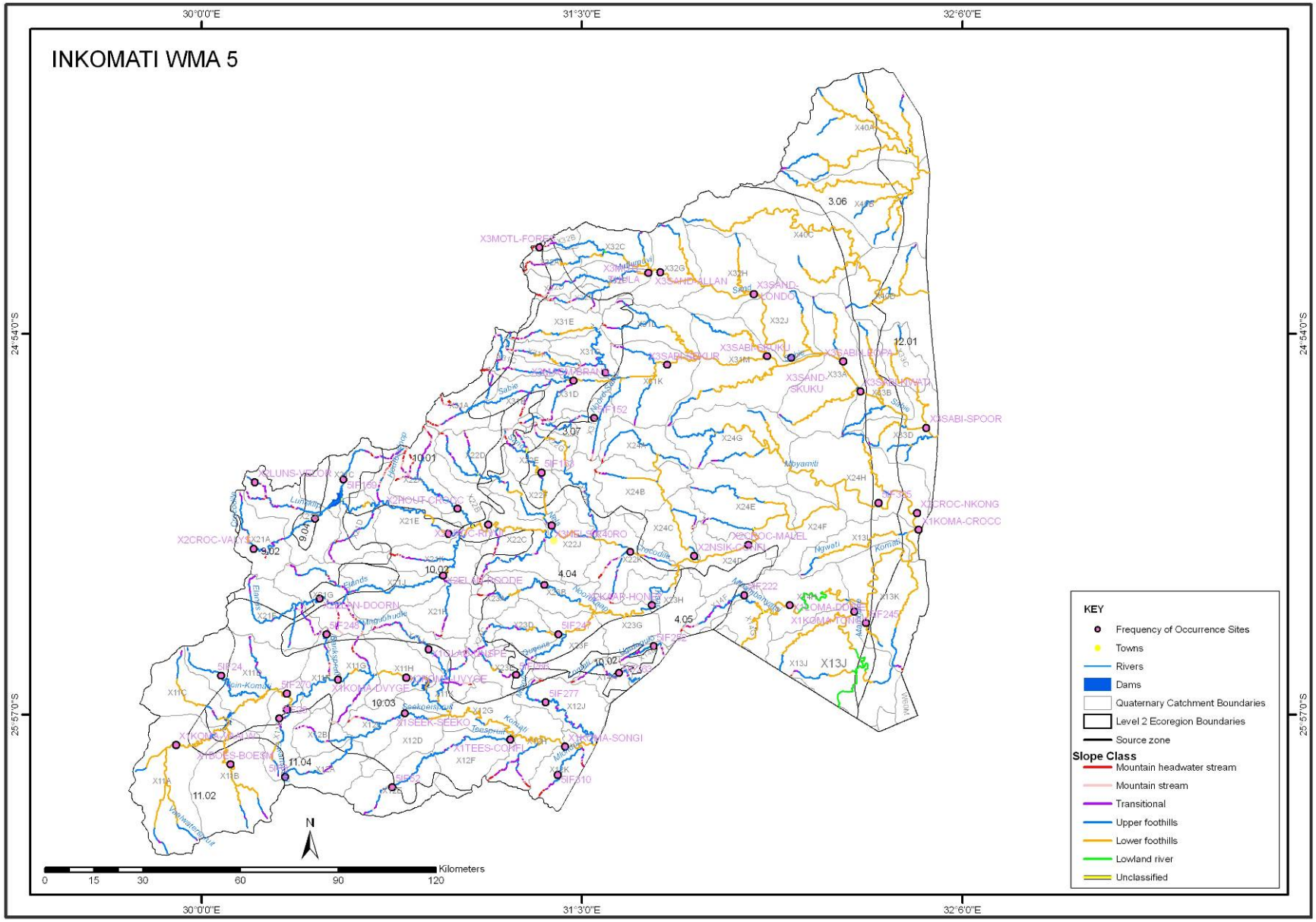
WMA 5 INKOMATI CONTINUED

FROC SITE CODE	5IF209	5IF212	5IF213	5IF216	5IF217	5IF228	5IF230	5IF232	5IF242	5IF243	5IF244	5IF250	5IF253	5IF256	5IF258	5IF260	5IF261	5IF262	5IF265	5IF272	5IF275
INCORPORATED SITES																					
LATITUDE	-25.5000	-25.5167	-25.5167	-25.5167	-25.5333	-25.6500	-25.6833	-25.6667	-25.7000	-25.7114	-25.7500	-25.7500	-25.7667	-25.7833	-25.8167	-25.8167	-25.8333	-25.8333	-25.8500	-25.9000	-25.9167
LONGITUDE	31.8000	31.1000	31.7833	31.0833	30.2667	31.2833	30.8167	31.2833	31.2667	31.7817	31.2833	31.2833	31.0500	31.0500	30.4000	30.5167	30.5833	30.6167	30.2000	30.2000	31.9500
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT	X21K				x21b	X23H		X23H	X23H		X23H	X23H	X23F	X23F							???
MAJOR RIVERS	Komati				Komati					Komati	Komati										Komati
TRIBUTARY																					
ECOREGION	10.02				9.02	4.05		4.05	4.05		4.05	4.05	4.05	4.05							12.01
GEOMORPH ZONE																					Upper Foothills
ALTITUDE	239	674	272	877	1766	437	974	473	716	231	843	841	782	824	1430	1275	1152	1091	1547	1488	594
FISH																					
AAEN																					
ABER																					
ABRE																					
ALAB																					
AMAR																					
AMOS																					
ANAT								1	1								1				
AURA														1	1			1		1	
BAFR																					
BFRI																					
BANN			1																		
BANO					1											1		1			
BARG																					
BBRI																					
BEUT				1		1		1	1					1							
BIMB																					
BLIN																					
BMAR		1	1			1	1	1	1										1		
BNEE																					
BPAU	1																				1
BPOL																					
BRAD			1																		
BTOP	1																				
BTRI		1				1	1		1				1	1							
BUNI		1	1						1												
BVIV	1		1																		
CANO																					
CBIF																					
CBRE																			1		
CEMA																			1		
CFLA																					
CGAR																					
CPAR																					
CPRE						1		1	1						1			1		1	
CSWI																					
GAFF (E)																					
GCAL	1																				
GGIU																					
HMOL																					
HVIT																					
KAUR																					
LCON																					
LCYL						1															
LMAC (E)											1	1									
LMOL						1			1												
LROS																					
LRUD																					
MACU																	1				
MBRE																	1				
MDOL (E)									1												
MMAC																					
MPUN(E)																					
MSAL (E)																					
OMOS													1				1				
OMYK (E)																					
OPER																	1				
PWES																					
PCAT																					
PPHI																					
SINT																					
SMER																					
SORB																					
STRU (E)																					
SSWI																					
SZAM																					
TREN																	1				
TSPA																					
VNEL										1		1									
XHEL																					

WMA 5 INKOMATI CONTINUED

FROC SITE CODE	5IF278	5IF286	5IF291	5IF300	5IF309	5IF311	5IF312	5IF316	5IF322	5IF324	5IF327	5IF328	5IF329	5IF345	5IF347	5IF348	5IF355	5IF362	5IF364
INCORPORATED SITES																			
LATITUDE	-25.9333	-25.9667	-25.9833	-26.0333	-26.1000	-26.1333	-26.1500	-26.7500	-25.6417	-25.4628	-24.7560	-24.7331	-24.6789	-24.6889	-24.7317	-24.7403	-24.6936	-24.7211	-25.3500
LONGITUDE	31.8167	30.0667	30.6833	30.2833	30.9500	30.6500	30.0000	30.8167	31.3239	31.2867	30.9202	30.9770	30.9328	30.9253	31.1466	30.9203	31.1275	31.0890	30.3667
WMA	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati	Inkomati
QUAT	X13J								X23H	X24C	X32D		X32A	X32A		X32D			
MAJOR RIVERS		Komati		Komati	Komati	Komati	Komati		Crocodile (east)	Crocodile (east)	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Sabie	Crocodile (east)
TRIBUTARY							Mlondozi		Phabeni	Phabeni	Mohlomobe	Mohlomobe	Motlamogatsana	Nwandlamuhari	Nwandlamuhari	Mutlumuvi	Mutlumuvi	Sand	
ECOREGION	12.01								4.05	3.07	4.04	5.05	4.04	10.01	5.06	10.01	5.06	5.06	9.02
GEOMORPH ZONE																			
ALTITUDE	279	1533	1010	1734	944	1712	1689	1011	476	660	1044	702	1006	825	480	960	548	550	1205
FISH																			
AAEN																			
ABER																			
ABRE																			
ALAB																			
AMAR																			
AMOS							1									2			
ANAT				1							2	2	2	2		2			1
AURA			1		1														
BAFR																			
BFRI																			
BANN																			
BANO					1	1	1												
BARG		1	1																
BBRI												2							
BEUT										2		2			2			2	
BIMB																			
BLIN																			
BMAR			1		1		1		2	2		2			2		2	2	
BNEE																			1
BPAU	1								2						2				
BPOL		1			1		1												
BRAD									2									2	
BTOP	1								2										
BTRI	1						1	1	2	2		2					2	2	
BUNI	1									2							2		
BVIV									2	2							2	2	
CANO												2			2		2	2	
CBIF																			
CBRE																			
CEMA			1																
CFLA																			
CGAR									2	2		2					2	2	
CPAR									2	2					2		2	2	
CPRE			1				1												
CSWI																			
GAFF (E)																			
GCAL																			
GGIU																			
HMOL																			
HVIT																			
KAUR																			
LCON																			
LCYL																			
LMAC (E)																			
LMOL										2					2			2	
LROS									2										
LRUD									2										
MACU									2						2		2	2	
MBRE									2						2		2	2	
MDOL (E)																			
MMAC									2	2									
MPUN(E)																			
MSAL (E)																			
OMOS	1								2						2		2	2	
OMYK (E)																			
OPER																			
PWES																			
PCAT																			
PPHI	1		1		1										2		2	2	
SINT									2										
SMER																			
SORB																			
STRU (E)																			
SSWI																			
SZAM																			
TREN									2						2		2	2	
TSPA																			
VNEL																			
XHEL																			

MAP OF WMA 5 (INKOMATI) FISH SITES



WMA 6 USUTU TO MHLATUZE

FROC SITE CODE	W1MFUL-ELIZA	W1MFUL-CONFL	W1MWAK-CMATI	W1EVUT-D1595	W1MLAL-ESHOW	W1MHLA-GOEDG	W1MHLA-GWEIR	W1NSEL-NSESI	W2MVUN-P0016	W2WMFO-ULUND	W2SIKA-PALME	W2BMFO-MFOLO	W2BMFO-FERRO	W2MFOL-N2MOU
LATITUDE	-28.51580	-28.60945	-28.94137	-29.06686	-28.87049	-28.77095	-28.74695	-28.58033	-28.11894	-28.33830	-27.90033	-28.12506	-27.94000	-28.44834
LONGITUDE	31.43624	31.53117	31.39415	31.48546	31.55915	31.38336	31.74745	31.763333	30.86686	31.36750	31.36522	31.60837	31.21000	32.26398
WMA	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze
QUAT	W12C	W12C	W11A	W11B	W13A	W12B	W12D	W12G	W21D	W21J	W22E	W22J	W22C	W23D
MAJOR RIVERS	Mhlathuze	Mhlathuze	Matigulu	Matigulu	Mlalazi	Mhlathuze	Mhlathuze	Mhlathuze	White Mfolozi	White Mfolozi	Black Mfolozi	Black Mfolozi	Black Mfolozi	Mfolozi
TRIBUTARY	Mfule	Mfule	Mwaku	Evutha	Mlalazi	Mhlathuze	Mhlathuze	Nseleni	Mvunyana	White Mfolozi	Sikwebezi	Black Mfolozi	Black Mfolozi	Mfolozi
ECOREGION	14.05	14.06	14.05	17.01	14.05	14.06	14.06	14.05	14.02	3.09	14.03	3.09	3.1	13.03
GEOMORPH ZONE	D	D	NOT ON SCALE	NOT ON SCALE	D	E	E	E	E	E	D	E	D	F
ALTITUDE	601	305	314	52	264	239	52	187	978	533	544	225	1158	15
FISH														
AAEN		2	2	2		1	2			2		2		2
ABIC							2							2
AKAT														
ALAB													2	2
AMAR		2	2		2	2	2			2		2		2
AMOS	2	2	2	2	2	1	2	2	2	2	1	2	2	2
AMYA														1
ANAT														
AURA											1		2	
BAFR														
BANN														
BANO														
BARG											1			
BBRE														
BEUT													2	
BGUR	2		1		2									
BIMB														
BLAT														2
BLIN														
BMAR														
BNAT	2	2	1	2	2	1	1	2	2	2	2	2	2	2
BPAU			1	2	2	1	1	2						1
BPOL														
BRAD														
BTOP														
BTRI	2	2	1	2		1	1	2	2	2	1	2	2	2
BUNI											1		2	
BVIV	2	2		2		1	1	2						2
CANO											1			
CCAR														
CEMA														
CGAR	2	2	2	2	2	1	1	2	2	2	1	2	2	2
CNGA														
CPAR														
CPRE														
CSWI														
CTHE				2										
GAES														
GCAL				2			1	2						1
GGIU														3
HVIT														
LCON														
LCYL														
LMOL	2	2	2	2		1	2	2		2	1	2	2	2
LPOL														
LROS														
MACU														
MCAP														
MBRE														1
MCEP														
MCYP														3
MFLU														
MMAC						1	1							
MSAL		2				1	2							
OMOS	2	2	1	2	2	1	1	2	2	2	2	2	2	1
OPER														
PCAT														
PPHI		2	2	2	2	1	1	2						1
RDEW														
SINT														
SZAM														
TREN					2	1								
TSPA	2	2	2	2	2	1	2		2	2			2	1
VNEL														

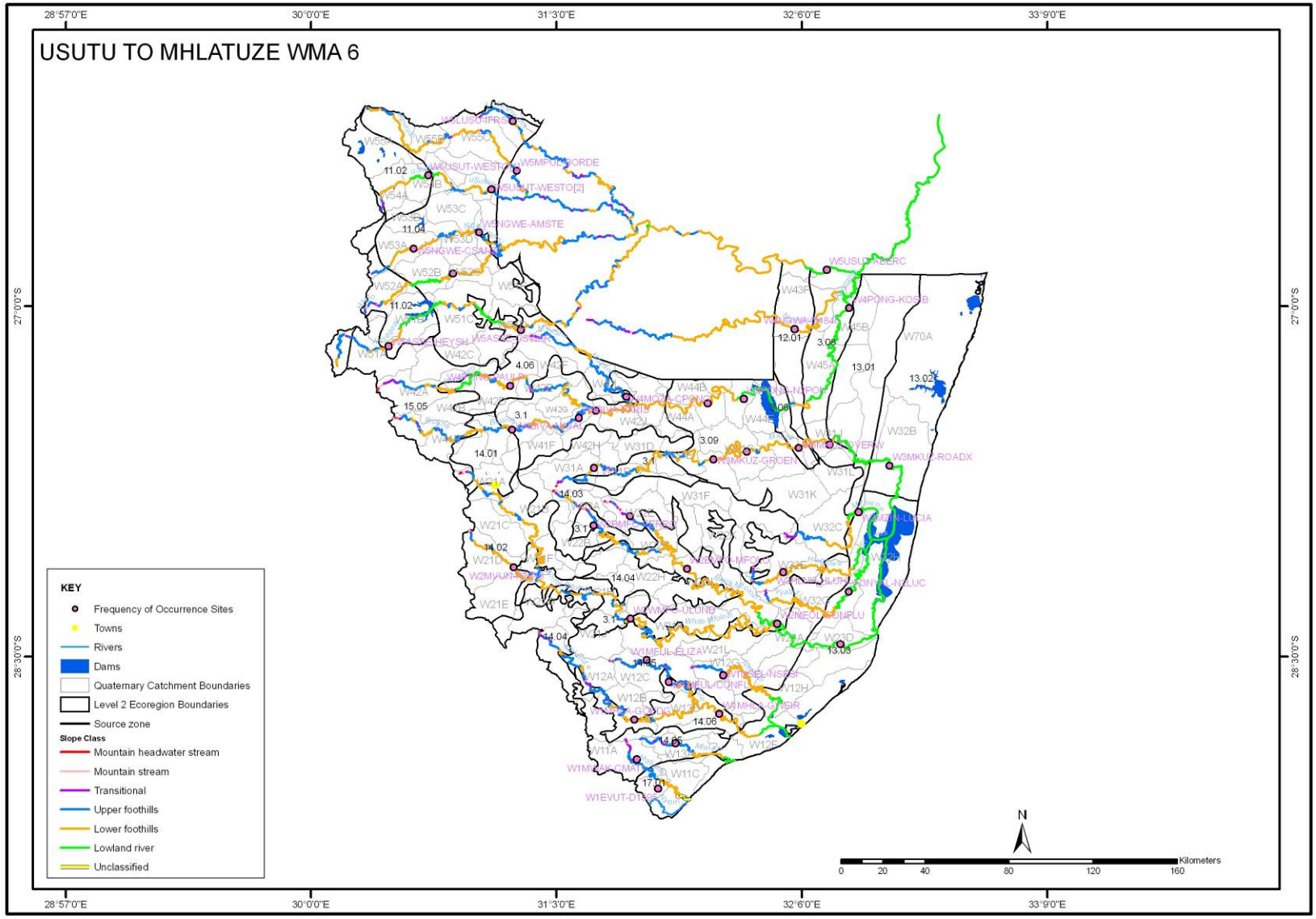
WMA 6 USUTU TO MHLATUZE CONTINUED

FROC SITE CODE	W2MFOL-CONFLU	W3HLUH-HLUHL	W3NYAL-N2LUC	W3MZIN-LUCIA	W3MKUZ-DENYE	W3MKUZ-MKUZI	W3MKUZ-GROEN	W3MKUZ-OVERW	W3MKUZ-D230B	W3MKUZ-ROADX	W4PONG-GROOT	W4PONG-BIVAN	W4PONG-N2PON	W4PONG-KOSIB
LATITUDE	-28.35960	-28.13826	-28.22307	-27.88175	-27.59226	-27.62234	-27.65648	-27.60805	-27.69256	-27.68378	-27.41660	-27.4487	-27.3975	-27.00924
LONGITUDE	31.99434	32.02062	32.30153	32.34248	32.21788	31.86463	31.72128	32.08777	31.21129	32.47560	31.69660	31.21996	31.85141	32.30366
WMA	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze
QUAT	W23A	W32E	W32G	W32C	W31J	W31G	W31F	W31H	W31A	W32B	W44B	W42H	W44D	W45B
MAJOR RIVERS	Mfolozi	Hluhluwe	Nyalazi	Mzinene	Mkuze	Mkuze	Mkuze	Mkuze	Mkuze	Mkuze	Pongolo	Pongolo	Pongolo	Pongolo
TRIBUTARY	Mfolozi	Hluhluwe	Nyalazi	Mzinene	Mkuze	Mkuze	Mkuze	Mkuze	Mkuze	Mkuze	Pongolo	Pongolo	Pongolo	Pongolo
ECOREGION	3.09	3.09	13.03	13.03	3.08	3.09	3.09	3.06	14.03	13.02	3.09	3.1	3.09	3.08
GEOMORPH ZONE	F	E	F	F	E	E	E	E	E	F	E	E	F	F
ALTITUDE	48	126	31	8	63	195	309	95	908	13	243	483	180	34
FISH														
AAEN	2		3	2	2	2		2						2
ABIC														2
AKAT				2										
ALAB	2													2
AMAR	2				2						2	2	3	2
AMOS	2		2	2	2	2	2	2	2	2	2	2	1	2
AMYA			2											
ANAT														
AURA												2		
BAFR														2
BANN				2						1				1
BANO														
BARG														
BBRE														
BEUT														
BGUR														
BIMB													1	1
BLAT	2					2	2	2		1				
BLIN			2							2				
BMAR											1	2	1	
BNAT	2	1			2	2	2	2	1					
BPAU	2	1	2	2	2	2		2		1	1		2	1
BPOL												3		
BRAD														1
BTOP			2	2	2			2		1				1
BTRI	2	1	2		2	2	2	2	2	1	1	2	1	1
BUNI								2			1	3	2	
BVIV	2			2	2			2		1	1		1	1
CANO											1	2		
CCAR									2		3		3	
CEMA												2		
CGAR	2	1	2	2	1	2	2	2	2	1	1	2	1	1
CNGA														1
CPAR											1	2	1	
CPRE														
CSWI											1	3	1	
CTHE				2										
GAES				2										
GCAL	2	1	2	2	2	2		2		1	1		1	1
GGIU			3	3	3			2		2	3		2	1
HVIT											3		1	1
LCON											3		1	
LCYL											1		1	1
LMOL	2	1		2	1	2	2	2		2	1	2	1	
LPOL														
LROS											3		2	1
MACU											1		1	1
MCAP			3	3										
MBRE	2	1				2		2		1	2	3	2	1
MCEP			3	2										
MCYP				2										2
MFLU														
MMAC										1	1	2	1	2
MSAL					2	2	2	2	1			1		
OMOS	2	1	2	2	2	2	2	2	1	1	1	2	1	1
OPER											2	1		
PCAT														1
PPHI	2	1	2	2	2	2		2		1	2		1	
RDEW			2	2						2				1
SINT											3	2	1	1
SZAM											3		2	1
TREN					2						3		2	
TSPA	2			2				2		1				1
VNEL														

WMA 6 USUTU TO MHLATUZE CONTINUED

FROC SITE CODE	W4PONG-PAULP	W4BIVA-NATAL	W4BIVA-PARIS	W4NGWA-D1840	W4MOZA-CPONG	W5USUT-ABERC	W5USUT-WESTO[1]	W5USUT-WESTO[2]	W5ASSE-CSWAR	W5HLEL-NYAMA	W5ASSE-HEYSH	W5NGWE-CSAND	W5NGWE-AMSTE	W5MPUL-BORDE	W5LUSU-IFRSI
LATITUDE	-27.34203	-27.52939	-27.4789	-27.09817	-27.38896	-26.84430	-26.43955	-26.50035	-27.10163	-26.86067	-27.17144	-26.75482	-26.68501	-26.42153	-26.20936
LONGITUDE	30.85304	30.86142	31.14586	32.06905	31.34796	32.20590	30.50298	30.77096	30.89707	30.60657	30.33183	30.43992	30.71917	30.88131	30.86462
WMA	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze	Usutu to Mhlatuze
QUAT	W42D	W41E	W41G	W43F	W42L	W57K	W54B	W54D	W51D	W52C	W51A	W53A	W53E	W55E	W56A
MAJOR RIVERS	Pongolo	Pongolo	Pongolo	Pongolo	Pongolo	Usutu	Usutu	Usutu	Usutu	Usutu	Usutu	Usutu	Usutu	Usutu	Little Usutu
TRIBUTARY	Pongolo	Bivane	Bivane	Ngwavuma	Mozana	USUTU	Usutu	USUTU	Assegaai	Hlelo	Assegaai	Nqwempisi	Nqwempisi	Mpuluzi	Lusushwana
ECOREGION	4.06	3.1	3.1	12.01	4.06	3.08	11.02	11.04	4.06	11.04	11.02	11.04	4.06	11.04	11.04
GEOMORPH ZONE	E	D	D	E	D	F	F	E	E	D	E	E	D	D	D
ALTITUDE	993	963	786	121	438	42	1581	1423	1106	1311	1335	1400	1120	1246	1420
FISH															
AAEN						2									
ABIC						2									
AKAT															
ALAB						2									
AMAR			2		2	2									
AMOS	2	2	2	2	2	1			2	2	2	2	2	2	2
AMYA															
ANAT									2	1		2	2		
AURA	2	2	2		2		1	1	1		1	2	2	2	1
BAFR				2		1									
BANN				2		1									
BANO	2	2					1		2	1	1	2	2	2	
BARG	1	2							1	1	1	2	2		2
BBRE								2		2		2	2	2	
BEUT															
BGUR															
BIMB				2		1									
BLAT															
BLIN															
BMAR	2	2	2		2	2			2				2		
BNAT															
BPAU				2		1									
BPOL	2		2					1	2			2		2	
BRAD				2		1									
BTOP				2		1									
BTRI			2	2	2	1									
BUNI	2	2	2	2		1									
BVIV				2		1									
CANO	2	2	2		2		1	1	1	1	2	2	2	2	1
CCAR						2									
CEMA	2	2	2		2				1						
CGAR	1	2	2		2	1				2					
CNGA						2									
CPAR			2		2	1									
CPRE									1						
CSWI			2	2		1			1					2	
CTHE															
GAES															
GCAL				2		1									
GGIU						1									
HVIT						1									
LCON				2		1									
LCYL				2	2	1									
LMOL		2	2	2	2	2				2					
LPOL											2		2		
LROS				2		1									
MACU					2	1									
MCAP															
MBRE			2	2		1									
MCEP															
MCYP						2									
MFLU						1									
MMAC		2	2		2	1									
MSAL			1												
OMOS	2		2	2	2	1									
OPER			1		1	1			1						
PCAT						1									
PPHI				2		1	2	2			2	2		2	
RDEW						2									
SINT			2	2		1									
SZAM						1									
TREN						1									
TSPA	2	2				1		2			2	2			
VNEL		2						1	2		2	3		2	2

MAP OF WMA 6 (USUTU TO MHLATUZE) FISH SITES



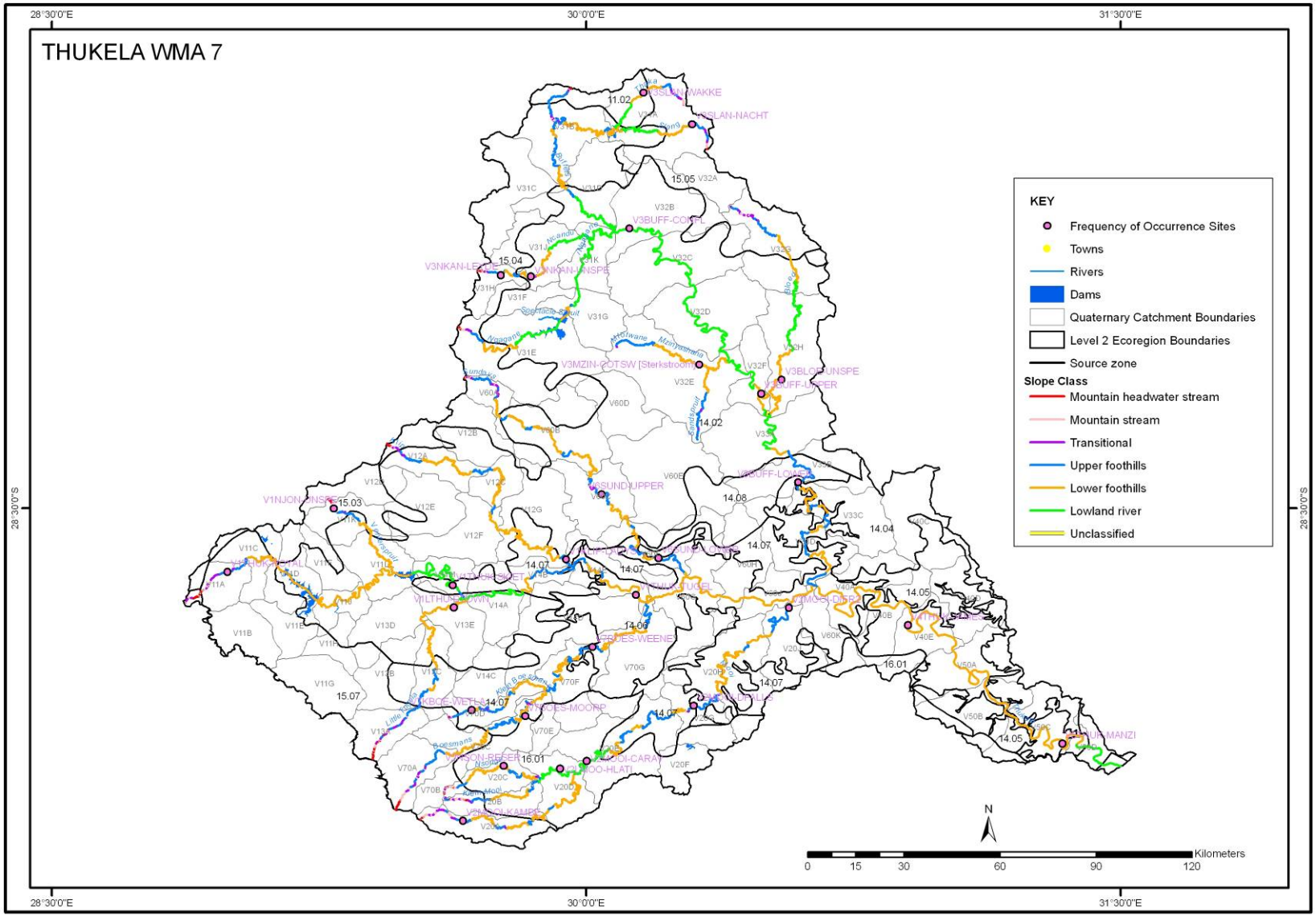
WMA 7 THUKELA

FROC SITE CODES	V1THUK-ROYAL	V1THUK-SKIET	V1THUK-TUGEL	V4THUK-JAMES	V5THUK-MANZI	V2MOOI-KAMBE	V2LMOO-HLATI	V2MOOI-DFALLS	V2MOOI-CARAV	V2MOOI-DIFR2	V7BOES-MOORP	V7KBOE-WETLA	V7BOES-WEENE	V1LTHU-DTOWN
LATITUDE	-28.67829	-28.71633	-28.74308	-28.82815	-29.16045	-29.3773	-29.23111	-29.054	-29.2092	-28.77929	-29.08345	-29.0659	-28.88991	-28.77795
LONGITUDE	28.99301	29.62417	30.13948	30.9019	31.33545	29.6542	29.92556	30.30066	30.001	30.56842	29.82783	29.6776	30.01718	29.6282
WMA	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela
QUAT	V11A	V11M	V14E	V40E	V50C	V20A	V20D	V20G	V20E	V20J	V20C	V70D	V70F	V13E
MAJOR RIVERS	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Boes mans	Thukela	Thukela
TRIBUTARY						Mooi	Little Mooi	Mooi	Mooi	Mooi	Boes mans	Klein Boesmans	Boes mans	Little Thukela
ECOREGION	15.07	14.07	14.06	14.06	14.06	15.07	16.01	14.06	16.01	14.06	14.07	14.07	14.06	14.02
GEOMORPH ZONE	D	F	E	E	E	D	F	D	F	D	D	D	D	E
ALTITUDE	1315	1015	671	664	48	1802	1387	982	1381	533	1208	1208	945	1001
FISH														
AAEN			1	1	1									
ALAB				1	1			1	1				1	
AMAR			1	1	1			1	1	1				
AMOS		1	1	1	1	1	1	1	1	1	1		1	1
ANAT	1		1		1			1	1	1	1			1
BAEN														
BANO	1	1				3	1	3	3		1	1	1	1
BNAT	1	1	1	1	1		1	1	1	1	1	1	1	1
BPAL														
BPAU														
BTRI			1	1	1			1	1	1			1	
BVIV			1	1	1			3	3	1				
CCAR		1	1	1									1	1
CGAR		1	1	1	1			1	1	1				1
GCAL					1									
GGIU					1									
LMAC														1
LMOL			1	1	1			1	1	1				
LRUB		1	1	1	1			1	1	1				1
MDOL							1	1	1					
MPUN													1	
MSAL		1					3							
OMOS		1	1	1	1					1				
OMYK	1					3					1			
STRU						3	3				1			
TSPA										1				

WMA 7 THUKELA CONTINUED

FROC SITE CODES	V1NJON-UNSPE	V1KLIP-LADYS	V6SUND-UPPER	V6SUND-LOWER	V3NKAN-LEYDE	V3NKAN-UNSPE	V3SLAN-WAKKE	V3SLAN-NACHT	V3MZIN-COTSW	V3BUFF-UPPER	V3BUFF-LOWER	V3BUFF-CONFL	V3BLOE-UNSPE	V2NSON-RESER
LATITUDE	-28.5	-28.6438	-28.46045	-28.6389	-27.8442	-27.84754	-27.33244	-27.42067	-28.09655	-28.17701	-28.42663	-27.7135	-28.13877	-29.22372
LONGITUDE	29.2903	29.9435	30.04288	30.20236	29.7605	29.84453	30.16045	30.29681	30.31678	30.49041	30.59501	30.1208	30.54832	29.76741
WMA	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela	Thukela
QUAT	V11K	V12G	V60C	V60F	V31H	V31J	V31A	V31A	V32E	V32F	V33B	V32B	V32H	V20C
MAJOR RIVERS	Thukela	Thukela	Thukela	Thukela	Buffalo	Thukela	Slang	Thukela	Buffalo	Thukela	Thukela	Thukela	Buffalo	Mooi
TRIBUTARY	Njongola	Klip	Sundays	Sundays	Nkandu	Nkandu	Wakker stroom	Slang	Mzinyashana	Buffalo	Buffalo	Buffalo	Bloed	Nsonge (Hlatikulu)
ECOREGION	15.03	14.07	14.02	14.06	15.04	14.02	11.02	15.05	14.02	14.02	14.06	14.02	14.02	16.01
GEOMORPH ZONE	C	C	D	D	D	D	E	D	E	E	D	F	E	E
ALTITUDE	1483	970	1005	739	1716	1424	1774	1797	1206	1191	1250	1201	1180	1530
FISH														
AAEN														
ALAB														
AMAR				1							1			
AMOS	1		1	1	1		1	3	1	1	1	1	1	1
ANAT				1	1	1	1	1						
BAEN														
BANO	1	1	1		1	1	1	1	1	1	1	1	1	1
BNAT	1	1	1	1		1	1		1	1	1	1	1	1
BPAL					1	1						1		
BPAU										1			1	
BTRI				1							1			
BVIV														
CCAR							1		1	1	1	1	1	
CGAR		1	1	1			1		1	1	1	2	1	
GCAL														
GGIU														
LMAC														
LMOL				1							1			
LRUB	1	1	1	1		1	1		1	1	1	1	1	
MDOL														
MPUN														
MSAL														
OMOS		1		1		3								
OMYK					1			1						1
STRU														3
TSPA							1		1	1	1		1	

MAP OF WMA 7 (THUKELA) FISH SITES



WMA 8 UPPER VAAL

FROC SITE CODE	C1VAAL-KVAAL	C1VAAL-BRAKS	C1VAAL-VILLI	C2VAAL-DENEY	C2VAAL-PARYS	C2VAAL-BARRA	8VF3	8VF5	C8ASH-UNSPE	8AF1	8LF1	8LF2	8LF3	8LF6	C1BLES-UNSPE	C2BLES-MARAI
LATITUDE	-26.7019	-27.0304	-27.0382	-26.8842	-26.8922	-26.7738	-26.9345	-26.3667	-28.4575	-28.3801	-28.2171	-28.0684	-27.7021	-28.2350	-26.7612	-26.4750
LONGITUDE	30.0831	29.0873	28.5739	28.1545	27.3682	27.6655	29.1716	30.1167	28.4020	28.3641	28.3633	28.3103	28.3228	28.3144	29.5405	28.4319
WMA	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal
QUAT	C11B	C11M	C12L	C12L	C23C	C23B	C11M	C11A	C83A	C83A	C83A	C83C	C83F	C83C	C11H	C21F
MAJOR RIVERS	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Liebenbergsvlei	Vaal	Vaal	Vaal	Liebenbergsvlei	Vaal	Vaal
TRIBUTARY							Brakspruit		Ash	Ash	Liebenbergsvlei	Liebenbergsvlei	Liebenbergsvlei	Jordaan River	Blesbokspruit	Blesbokspruit
ECOREGION	11.05	11.03	11.05	11.03	11.01	11.03	11.05	11.02	15.03	15.01	15.01	11.03	11.03	15.01	11.05	11.03
GEOMORPH ZONE	E	F	F	F	E	F	E	E	D	D	E	F	F	E	E	E
ALTITUDE (m)	1659	1518	1497	1485	1381	1424	1553	1670	1766	1687	1643	1602	1559	1634	1568	1536
FISH																
ASCL		3	3	1	1	1					3	3	3			3
BAEN	3	3	1	1	1	1				1	1	1	1	1		1
BANO	3	3	3	1	3	1	1	1	1	1	1	1		1	1	1
BKIM	3	3	1	3	3	1					3	3	3			
BNAT																
BNEE	3	3	3	3		3	1	1	3	3	1	1	3	1	1	3
BPAL																
BPAU	3	3			3	3	1	1			1	3	3		1	3
BTRI					3											
CCAR				1		1						1	1		3	1
CGAR	3	3	3	1	1	1	1				3	1	1		3	1
GAFF															1	
Grass Carp					1	1										
LCAP	3	3	1	1	1	1					1	1	1			1
LMAC																
LUMB	3	3	3	1	3	1					1	1	1			3
MSAL						1					1			1		
OMYK																
PPHI	3	3	3	3		1	3								1	1
TSPA	3	3	3	3		1	1								3	1

WMA 8 UPPER VAAL CONTINUED

FROC SITE CODE	8BF1	8BF2	8BF4	C1DRIN-UNSPE	C1KVAA-UNSPE	C1KLIP-UNSPE	C1KLIP-UNSPE	C1LEEU-NDLEE	C1RIET-AMERS	C1SAND-UNSPE	C1WATE-EWR01	C1WATE-EWR02	C2KLIP-ZWART	C2KLIP-SLANG	8KLF2	8KLF4
LATITUDE	-26.2148	-26.4277	-26.5092	-26.7810	-26.8197	-27.1825	-27.4701	-26.8502	-26.9071	-27.2084	-26.6352	-26.8343	-26.3812	-26.5493	-26.2140	-26.3372
LONGITUDE	28.4480	28.5033	28.3508	29.8063	30.1366	29.2344	29.6005	29.3294	29.8716	29.4370	29.0226	28.9284	28.0717	28.0644	27.8129	27.9031
WMA	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal
QUAT	C21D	C21E	C21F	C11G	C11D	C13F	C13D	C11L	C11E	C13B	C12F	C12F	C22D	C22E	C22A	C22A
MAJOR RIVERS	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal
TRIBUTARY	Blesbok spruit	Blesbok spruit	Blesbok spruit	Drinkwater spruit	Klein Vaal	Klip (Grootdraai	Klip (Grootdraai	Leeuspruit	Rietspruit	Sandspruit	Waterval	Waterval	Klip (Vaal Barrage)	Klip (Vaal Barrage)	Klip (Vaal Barrage)	Klip (Vaal Barrage)
ECOREGION	11.03	11.03	11.01	11.05	11.02	11.03	11.06	11.05	11.05	11.03	11.05	11.05	11.01	11.03	11.01	11.01
GEOMORPH ZONE	F	F	E	F	F	F	F	E	E	F	F	F	E	E	D	E
ALTITUDE (m)	1582	1556	1513	1582	1601	1530	1686	1560	1597	1551	1560	1534	1489	1462	1633	1547
FISH																
ASCL		3						1		3	3	3	3	1		
BAEN		1	1	1	1	1	1	1		1	3	3	1	1	3	1
BANO	3	1	1	1	1	1	1	1	1	1	3	3	1	1	3	1
BKIM		1									3	3	3	3		
BNAT																
BNEE	3	1	3		3	1	1	3	3	1	3	3	1	3	3	3
BPAL																
BPAU		1	1					1			3	3	1	1	3	1
BTRI																
CCAR	1		1	1				1		1	3	3	1	1	3	1
CGAR	1	1	1			1		1			3	3	1	1		1
GAFF		1	1										1	3		1
Grass Carp																
LCAP		1	1	1	1	1		1		1			1	1		1
LMAC																
LUMB		3	1		3	3		1		1			1	1		1
MSAL	1		1										1	3		1
OMYK																
PPHI	1	1	1	1	1			1			3	3	1	1	3	1
TSPA	3	3	1		3			3			3	3	1	1	1	1

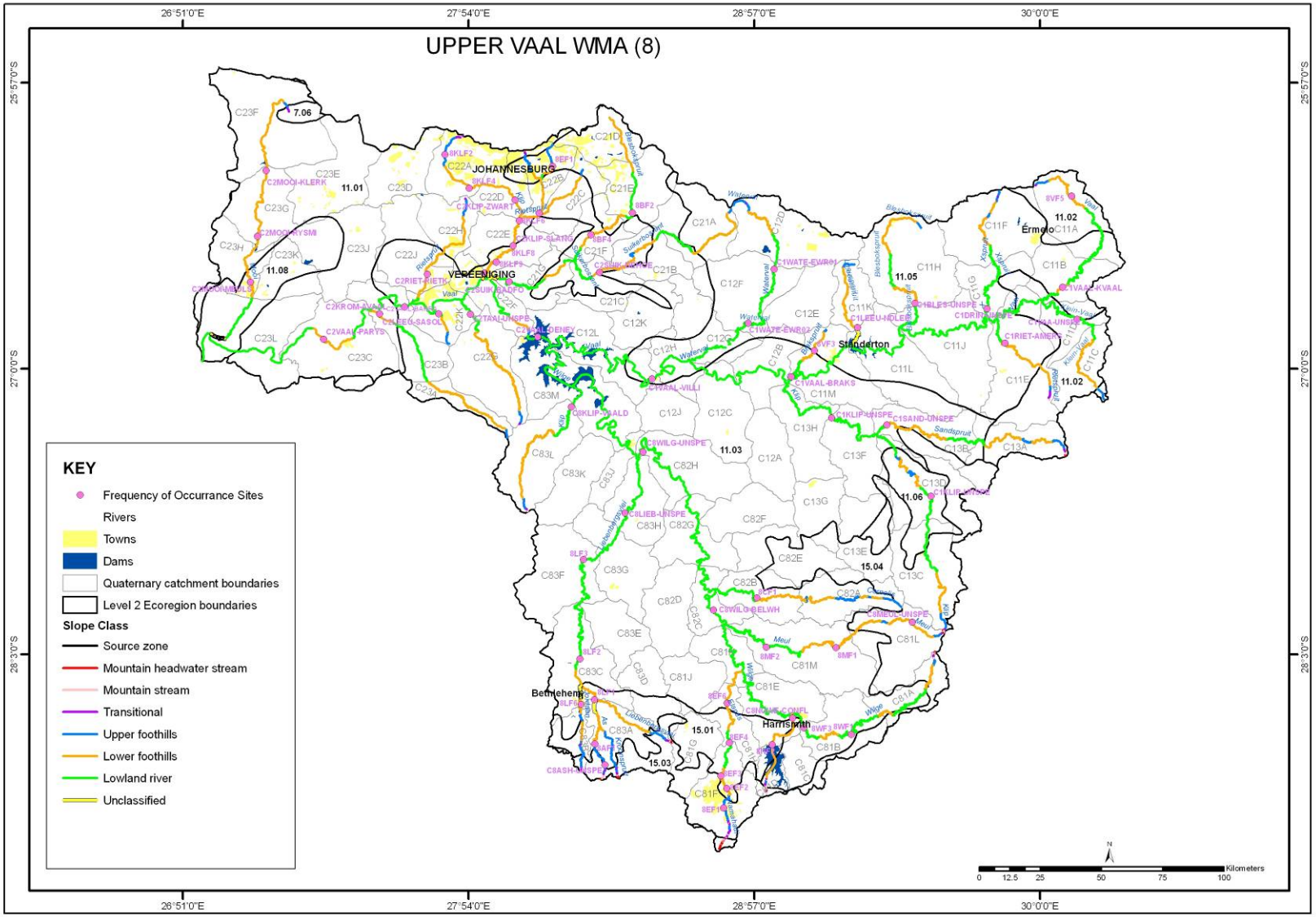
WMA 8 UPPER VAAL CONTINUED

FROC SITE CODE	8KLF6	8KLF8	8KLF9	C2RIET-RIETK	C2KROM-AVAAL	C2LEEU-SASOL	C2MOOI-KLERK	C2MOOI-MEULS	C2MOOI-RYSMI	C2RIET-RIETS	8EF1	C2SUIK-BADFO	C2SUIK-DEHOE	C2TAAI-UNSPE	C8LIEB-UNSPE
LATITUDE	-26.4566	-26.6101	-26.6494	-26.6546	-26.7991	-26.7990	-26.2727	-26.6828	-26.5146	-26.4292	-26.2575	-26.6812	-26.6467	-26.8001	-27.5317
LONGITUDE	28.0862	28.0027	27.9569	27.7484	27.5740	27.7899	27.1557	27.0986	27.1246	28.1606	28.2098	28.0501	28.3820	27.9076	28.4758
WMA	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal
QUAT	C22E	C22E	C22F	C22J	C23B	C22K	C23G	C23H	C23G	C22C	C22B	C21G	C21C	C22K	C83H
MAJOR RIVERS	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Rietspruit	Vaal	Vaal	Vaal	Vaal
TRIBUTARY	Klip (Vaal Barrage)	Klip (Vaal Barrage)	Klip (Vaal Barrage)	Rietspruit	Kromellenboogspruit	Leeuspruit	Mooi	Mooi	Mooi	Rietspruit (Klip River)	Elsburg spruit	Suikerbosrant	Suikerbosrand	Taaibospruit	Liebenbergsvlei
ECOREGION	11.01	11.03	11.03	11.03	11.01	11.03	11.01	11.08	11.01	11.01	11.03	11.03	11.03	11.03	11.03
GEOMORPH ZONE	E	E	E	E	E	F	E	E	E	E	D	F	E	F	F
ALTITUDE (m)	1473	1448	1431	1444	1416	1442	1452	1358	1400	1506	1567	1438	1516	1431	1522
FISH															
ASCL		1	3		3			1		3		1	1		3
BAEN	1	1	1	3	3	3		1		1		1	1		1
BANO	1	1	3	1	3	3	1	3	1	1	1	1	1	1	1
BKIM		3	3					3				1	1		1
BNAT															
BNEE	3	3		3	3	3	1	1	3	1	3	1	1	3	1
BPAL															
BPAU	1	1	3		3	3	1	3	1	3	1	3	3	1	1
BTRI							1	1	1						
CCAR	1	1	1	1	3	3				1		1	1	1	1
CGAR	1	1	1	1	3	3	1	1	3	1	3	1	1	3	1
GAFF	1			1										1	1
Grass Carp															
LCAP	1	1	1		3	3		1		1		1	1	1	1
LMAC															
LUMB	1	1	1		3	3		3		1		1	1	1	1
MSAL	1	1	1												1
OMYK															
PPHI	1	1	1		3	3	1	1	3	1	1	1	1	1	1
TSPA	1	1	3		3	3	1	1	1	1	1	1	1	3	1

WMA 8 UPPER VAAL CONTINUED

FROC SITE CODE	C8KLIP-VAALD	C8WILG-UNSPE	8WF1	8WF3	C8WILG-BELWH	8EF1	8EF2	8EF3	8EF4	8EF6	C8NUWE-CONFL	8NF2	MEUL-UNS	8MF1	8MF2	8CF1
LATITUDE	-27.1423	-27.3070	-28.3461	-28.3212	-27.8879	-28.6159	-28.5443	-28.4982	-28.3765	-28.2310	-28.2846	-28.3833	-27.9324	-28.0271	-28.0250	-27.8438
LONGITUDE	28.2780	28.5420	29.3074	29.1323	28.8011	28.8371	28.8494	28.8275	28.8592	28.8509	29.0902	29.0167	29.5304	29.2500	28.9952	28.9607
WMA	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal	Upper Vaal
QUAT	C83L	C82H	C81B	C81B	C82C	C81F	C81F	C81F	C81H	C81H	C81E	C81E	C81L	C81M	C81M	C82B
MAJOR RIVERS	Vaal	Liebenbergsvlei	Liebenbergsvlei	Liebenbergsvlei	Liebenbergsvlei	Vaal	Vaal	Vaal	Vaal	Vaal	Wilge	Wilge	Wilge	Wilge	Wilge	Wilge
TRIBUTARY	Klip	Wilge	Wilge	Wilge	Wilge	Elands	Elands	Elands	Elands	Elands	Nuwejaar spruit	Nuwejaar spruit	Meul	Meul	Meul	Cornelis spruit
ECOREGION	11.03	11.03	11.03	11.03	11.03	15.03	15.01	15.01	15.01	11.03	11.03	15.01	15.04	11.03	11.03	11.03
GEOMORPH ZONE	F	F	F	F	F	D	E	Elands	F	E	E	E	E	E	F	E
ALTITUDE (m)	1490	1508	1664	1603	1575	1692	1644	1640	1619	1602	1604	1624	1744	1661	1604	1605
FISH				1												
ASCL		1			3				3	1	3	1			1	
BAEN	3	1		1	3		1	1	1	1	3	1			1	1
BANO	3	3	1	3	3	1	1	1	1	1	3	1	3	1	3	3
BKIM															1	
BNAT																
BNEE	3	3	1	3	3	3	3	3	3	3	3	1	3	1	3	3
BPAL																
BPAU		1		3	3							3			3	3
BTRI																
CCAR	3	1										1				1
CGAR	3	1		3	3		1	3	3	3	3	1			1	
GAFF		1														
Grass Carp																
LCAP	3	1		3	3		1	1	3	1	3	1			1	1
LMAC												1				
LUMB	3	1		3	3		3	1	3	3	3	1			1	1
MSAL		1		1	3							1				1
OMYK																
PPHI	3	3														
TSPA	3	3														

MAP OF WMA 8 (UPPER VAAL) FISH SITES



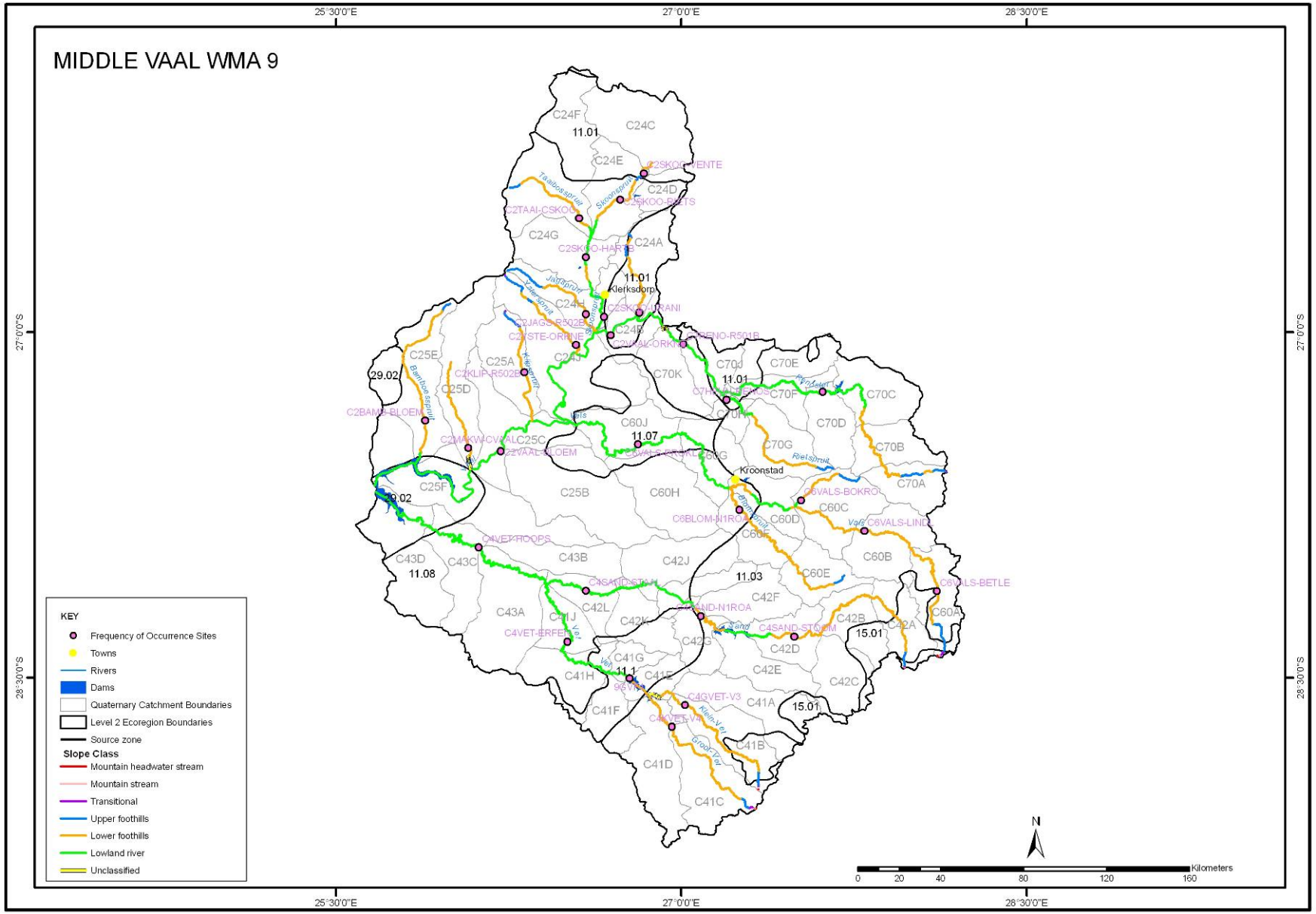
WMA 9 MIDDLE VAAL

FROC SITE CODE	C2VAAL-BLOEM	C2VAAL-ORKNE	C2KLIP-R502B	C2YSTE-ORKNE	C2KOEK-ROODE	C2JAGS-R502B	C2MAKW-CVAAL	C2BAMB-BLOEM	C2SKOO-URANI	C2SKOO-HARTB	C2SKOO-RIETS	C2SKOO-VENTE	C2TAAI-CSKOO	C4VET-HOOPS	C4VET-ERFEN
LATITUDE	-27.51729	-27.01366	-27.17468	-27.05595	-26.91605	-26.92232	-27.50308	-27.38458	-26.93333	-26.67500	-26.42688	-26.31178	-26.50637	-27.93412	-28.34339
LONGITUDE	26.21604	26.69313	26.31863	26.54283	26.81713	26.58608	26.07572	25.88745	26.66527	26.58611	26.73594	26.83761	26.55581	26.12094	26.50617
WMA	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal
QUAT	C25C	C24B	C25A	C24J	C24A	C24H	C25D	C25E	C24H	C24G	C24E	C24E	C24F	C43C	C41J
MAJOR RIVERS	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Skoon spruit	Vaal	Vaal
TRIBUTARY	Oranje		Klipspruit	Ysterspruit	Koekemoerspruit	Jagspruit	Makwassie spruit	Bamboes spruit	Skoon spruit	Skoon spruit	Skoon spruit	Skoon spruit	Taaibos spruit	Vet	Vet
ECOREGION	11.08	11.01	11.08	11.08	11.01	11.08	11.08	11.08	11.08	11.08	11.08	11.01	11.08	11.08	11.08
GEOMORPH ZONE	F	F	E	E	F	E	E	E	F	F	E	E	E	F	F
ALTITUDE	1238	1290	1315	1296	1297	1318	1246	1281	1291	1338	1386	1474	1358	1251	1287
FISH															
ASCL	3	3			3				3					3	1
BAEN	3	1	3	3	3	3	3	3	1	1	3		3	1	1
BANO	3	1	3	3	3	3	3	3	1	1	3	1	3	1	1
BKIM	3			3	3	3			3					3	3
BTRI			3		3		3	3	3						
CCAR	3	1	3	3	3	3	3	3	3					1	1
CGAR	3	1	3	3	3	3	3	3	3	3	3		3	1	1
CTEN	3	3													
GAFF															
LCAP	3	1	3	3	3	3	3	3	1	1	3		3	1	1
LUMB	3	1	3	3	3	3	3	3	1	1	3		3	1	1
MSAL															
PPHI	3	1	3	3	3	3	3	3	1	1	3		3	1	1
TSPA	3	1	3	3	3	3	3	3	1	1	3		3	1	1

WMA 9 MIDDLE VAAL CONTINUED

FROC SITE CODE	C4GVET-V3	C4KVET-V4	9GVF1	C4SAND-STAAL	C4SAND-N1ROA	C4SAND-STOOM	C6VALS-PROKL	C6VALS-BOKRO	C6VALS-LINDL	C6VALS-BETLE	C6BLOM-N1ROA	C7RENO-R501B	C7HEUN-RENOS	C7RENO-KOPPI
LATITUDE	-28.61872	-28.71239	-28.50304	-28.12289	-28.23286	-28.32175	-27.48683	-27.73061	-27.86405	-28.12472	-27.77180	-27.05286	-27.29372	-27.25897
LONGITUDE	27.01661	26.95911	26.77575	26.58597	27.08525	27.49094	26.81305	27.52161	27.794817	28.11108	27.25213	27.00991	27.19626	27.61482
WMA	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal	Middle Vaal
QUAT	C41B	C41C	C41G	C42L	C42G	C42D	C60J	C60C	C60B	C60A	C60F	C70J	C70H	C70D
MAJOR RIVERS	Vet	Vaal	Vaal	Vet	Vet	Vet	Vaal	Vaal	Vaal	Vaal	Vals	Vaal	Vaal	Vaal
TRIBUTARY	Klein Vet	Groot Vet	Groot Vet	Sand	Sand	Sand	Vals	Liebenbergstroom	Vals	Vals	Blomspruit	Renoster	Heuningspruit	Renoster
ECOREGION	11.03	11.03	11.1	11.08	11.03	11.03	11.07	11.03	11.03	15.01	11.08	11.08	11.01	11.03
GEOMORPH ZONE	E	E	E	F	E	E	F	D	E	E	E	F	F	F
ALTITUDE	1362	1367	1356	1278	1333	1393	1450	1403	1452	1579	1359	1314	1346	1386
FISH														
ASCL			1	3			3					3		
BAEN	1	1	1	1	1	1	1	3	1		3	3	1	1
BANO	1	1	1	1	1	1	1	3	1	1	3	3	3	1
BKIM			1	3	3		3	3				3	3	1
BTRI														
CCAR			1	1	1	1	3		1			3	3	1
CGAR	1	1	1	1	1		3	3		1	3	3	3	1
CTEN														
GAFF							1							
LCAP	1	1	1	1	1	1	1	3	1	1	3	3		1
LUMB	1	1	1	1	1	1	1	3	1		3	3		1
MSAL			1	1										
PPHI			1	1	1		1					3	3	3
TSPA				1	1		3	3	1		3	3	3	3

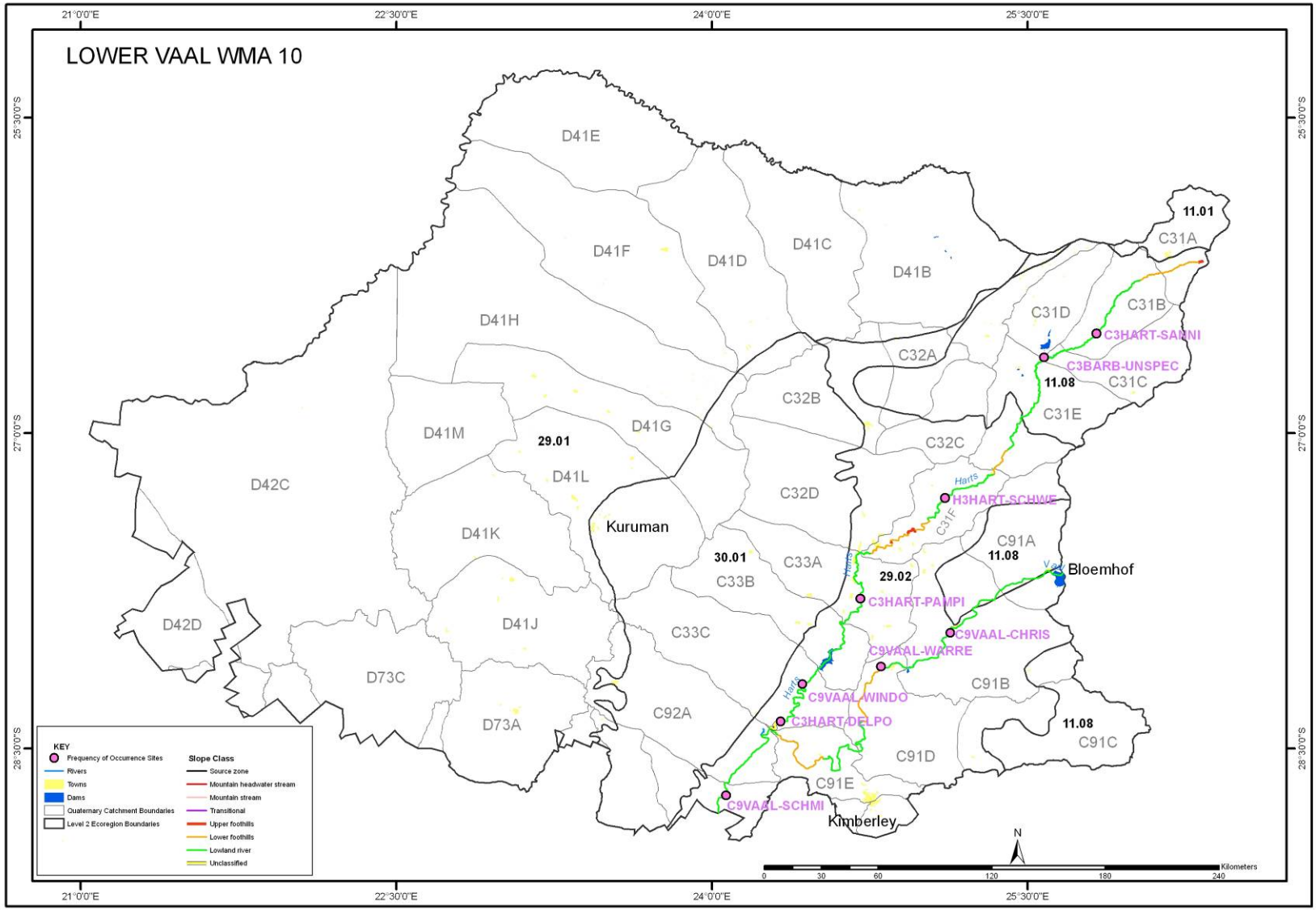
MAP OF WMA 9 (MIDDLE VAAL) FISH SITES



WMA 10 LOWER VAAL

FROC SITE CODE	C3HART-DELPO	C3HART-PAMPI	H3HART-SCHWE	C3HART-SANNI	C3BARB-UNSPEC	C9VAAL-SCHMI	C9VAAL-WINDO	C9VAAL-WARRE	C9VAAL-CHRIS	C9VAAL-DOUGL
LATITUDE	-28.37025	-27.78670	-27.30770	-26.52475	-26.64011	-28.72361	-28.19325	-28.11097	-27.94884	-29.05267
LONGITUDE	24.32578	24.70485	25.10719	25.82571	25.57718	24.06525	24.43001	24.80193	25.13157	23.81835
WMA	Lower Vaal	Lower Vaal	Lower Vaal	Lower Vaal	Lower Vaal	Lower Vaal	Lower Vaal	Lower Vaal	Lower Vaal	Lower Vaal
QUAT	C33C	C33A	C31F	C31B	C31C	C92B	C33C	C91D	C91B	C92C
MAJOR RIVERS	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal	Vaal
TRIBUTARY	Harts	Harts	Harts	Harts	Harts		Harts			
ECOREGION	29.02	29.02	29.02	11.08	11.08	29.02	29.02	29.02	29.02	26.01
GEOMORPH ZONE	F	F	F	F	F	F	F	E	F	F
ALTITUDE (m)	1015	1065	1272	1377	1354	1002	1036	1169	1198	988
FISH										
ASCL	3					3		3	3	3
BANO	3	3	3	3	3	3	3	3	3	3
BPAU	3	1	3		1	3	3	3	3	3
BTRI	3	1	3			3	3	3	3	3
BAEN	3	1	3		3	3	3	3	3	3
BKIM	3					3		3	3	3
CCAR	3				1	3	3	3	3	3
CGAR	3	1	3		1	3	3	3	3	3
GAFF		1								
LCAP	3	1	3		3	3	3	3	3	3
LUMB	3	3	3		1	3	3	3	3	3
PPHI	3	1	3			3	3	3	3	3
TSPA	3	1	3			3	3	3	3	3

MAP OF WMA 10 (LOWER VAAL) FISH SITES



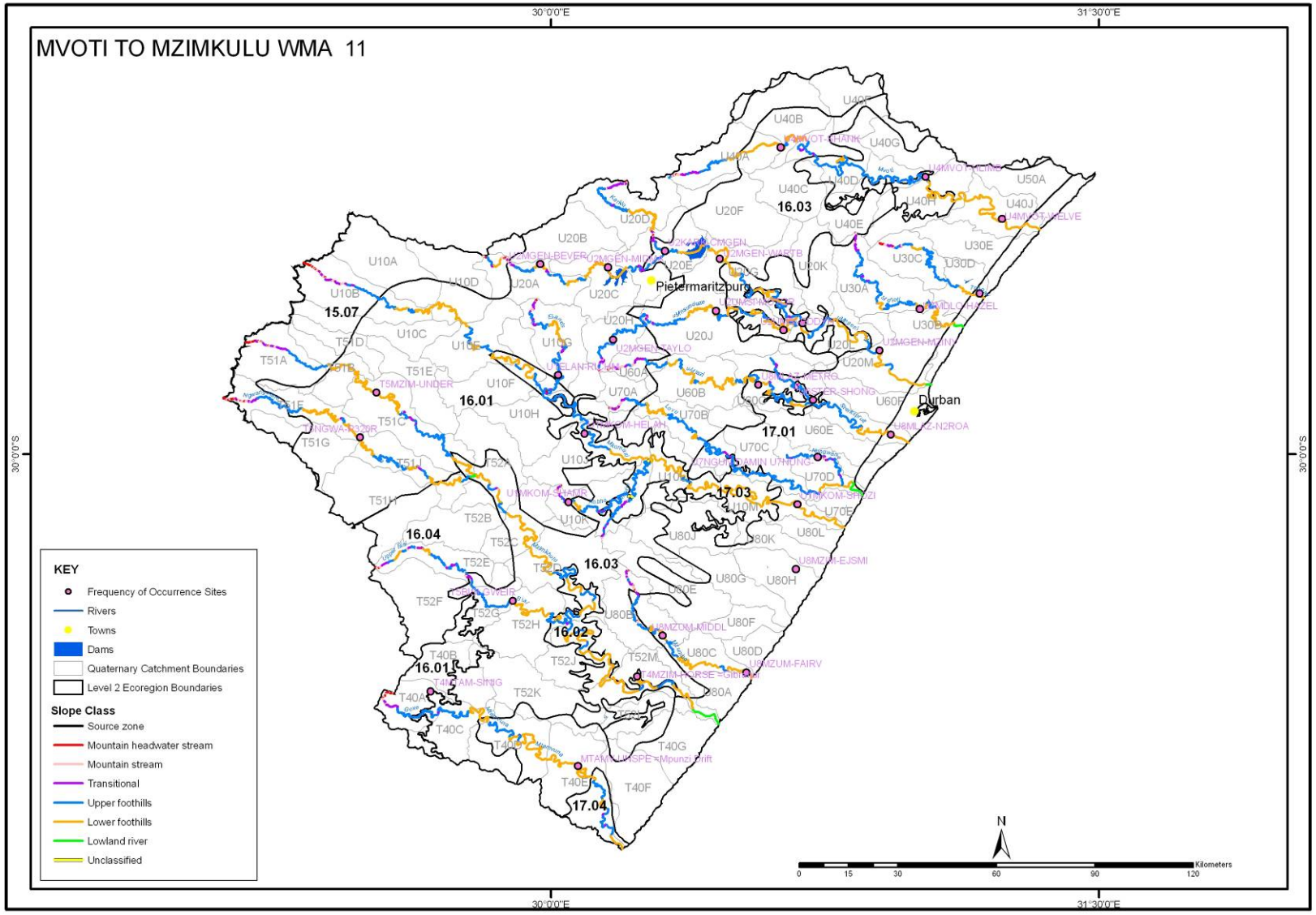
WMA 11 MVOTI TO MZIMKULU

FROC SITE CODE	T4MTAM-SINIG	T4MZIM-HORSE	T5MZIM-UNDER	T5NGWA-P320R	T5BISI-GWEIR	U1MKOM-HELAH	U1MKOM-SHOZI	U1MKOM-SHAMR	U1ELAN-RICHM	U2MGEN-BEVER	U2MGEN-INAND	U2MGEN-MIDMA	U2MGEN-MZINY	U2MGEN-WARTB	U2UMSI-EDDYH	U2UMSI-MOTOR
INCORPORATED SITES		MC88/28, 05/01, Alletson 2001	DeJager 1987MC94/3	Alletson 1988	MC88/30, 88/41,		MC98/1 SAICCOR weir	MC90/10, 90/20,	MC91/64-65, MC94/31		MC91/1, 94/7, 95/72, Strydom 1993, Sookay 1987	MC95/99		Harries 1963, Coke 1991, 2001		MC91/98/92/48
LATITUDE	-30.65000	-30.61000	-29.83200	-29.95500	-30.40240	-29.94339	-30.13768	-30.13129	-29.78361	-29.47968	-29.64225	-29.48814	-29.71697	-29.46458	-29.66042	-29.60722
LONGITUDE	29.67014	30.23600	29.52150	29.47691	29.89470	30.09125	30.67372	30.04822	30.01889	29.96982	30.68814	30.15600	30.89928	30.46197	30.63531	30.450833
WMA	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu
QUAT	T40A	T52M	T51C	T51F	T52G	U10J	U10M	U10K	U10G	U20A	U20L	U20C	U20M	U20G	U20J	U20J
MAJOR RIVERS	Mtamvuna	Mzimkulu	Mzimkulu	Mzimkulu	Mzimkulu	Mkomaas	Mkomaas	Mkomaas	Mkomaas	Mgeni	Mgeni	Mgeni	Mgeni	Mgeni	Mgeni	Mgeni
TRIBUTARY				Ngwangwane	Bisi			Xobho	Elands [=Ncwadi]						Umsinduzi	Umsinduzi
ECOREGION	16.03	16.02	16.01	16.01	16.03	16.02	17.01	16.02	16.01	16.01	17.03	16.01	17.01	16.03	17.03	16.03
GEOMORPH ZONE	B	E	E	E	E	D	E	D	D	E	E	D	E	E	E	E
ALTITUDE	1011	125	1419	1472	622	527	68	820	983	1330	275	1054	138	603	365	602
FISH																
AAEN		1					1				1		1	1	1	
ABER																
ALAB								1			1				1	
AMAR		1				1	1				1	1	1		1	
AMOS	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ANAT						1			1	3	1	1			1	
BANO		1	1	1	1	1	1		1	1		1				
BGUR		1														1
BNAT		1			1	1	1	1	1	3	1	1	1	1	1	1
BPAU																
BTRI																
BVIV		1				1	1				1	1			1	1
CCAR						3	1				1	1			1	3
CGAR		1				1	1	1			1	1	1	1	1	1
EFUS													3			
GCAL							1									
GGIU																
HCYP																
LMAC												1				
MCAP																
MCEP																
MDOL										3		1				
MFLU																
MPUN																
MSAL			1	1				1	3	3		1	1	1	3	3
OMOS		1					1			3	1	1	1		1	1
OMYK	1		1	1	1											
ONIL																
PPHI							3				1				1	1
PRET																
STRU										1						
TREN											1		1	1	1	
TSPA								3			1		1	1	1	1

WMA 11 MVOTI TO MZIMKULU CONTINUED

FROC SITE CODE	U2KARK-CMGEN	U2MGEN-TAYLO	U2TONG-ROADB	U3MDLO-HAZEL	U4MVOT-HLIMB	U4MVOT-SHANK	U4MVOT-WELVE	U6STER-SHONG	U7NGUN-DAMIN	U8MLAZ-METRO	U8MLAZ-N2ROA	U8MZIM-EJSMI	U8MZUM-FAIRV	U8MZUM-MIDDL	MTAMV-UNSPE
INCORPORATED SITES	MC93/23, 96/111	MC91/10, 92/44		MC00/47,49 below Hazelmere dam	MC96/32, 82	Lowry 1983, MC89/2	MC96/30,31 Wellvale		Markham 1984, Begg 1981	MC94/29, 95/25	MC97/63	Begg 1981	MC05/02		Mtamvuna @ Mpunzi Drift MC 1987, 92/16-18
LATITUDE	-29.44383	-29.68694	-29.55981	-29.60208	-29.24031	-29.15964	-29.35617	-29.8525	-30.00778	-29.81048	-29.94753	-30.31519	-30.59878	-30.4977	-30.85528
LONGITUDE	30.31083	30.169722	31.17407	31.00902	31.02533	30.62858	31.23412	30.716667	30.73	30.56739	30.93043	30.67019	30.53456	30.30509	30.073333
WMA	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu	Mvoti to Umzimkulu
QUAT	U20E	U20H	U30D	U30A	U40H	U40A	U40J	U60C	U70D	U60C	U60D	U80H	U80C	U80B	T40E
MAJOR RIVERS	Mgeni	Mgeni	Tongati	Mdloti	Mvoti	Mvoti	Mvoti	Sterkspruit	Lovu	Mlazi	Mlazi	Mzimayi	Mzumbe	Mzumbe	Mtamvuna
TRIBUTARY	Karkloof	Umsinduzi							Nungwane						
ECOREGION	16.03	16.01	17.02	17.01	17.03	16.03	17.01	17.03	17.01	17.01	17.02	17.01	17.01	17.01	17.01
GEOMORPH ZONE	D	D	E	E	D	E	E	D	D	E	E	unclassified	E	E	E
ALTITUDE	707	1149	70	112	217	960	32	315	372	537	35	127	11	282	276
FISH															
AAEN				1			1				1		1		
ABER			1				1						1		
ALAB				1											
AMAR	1		1	1	1		1				1		1		1
AMOS	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1
ANAT	1	1													
BANO	1													3	
BGUR									1					3	1
BNAT	1	1		1	1			1	1	1	1	1	1	1	1
BPAU							1								
BTRI					1		1								
BVIV	1		1		1	1	1	1		1	1	1	1	1	1
CCAR								3							
CGAR	1		1	1	1		1	1	3	1	1	1			
EFUS			3				3				3		3		
GCAL			1								1	1	1		
GGIU											1	1	1		
HCYP			1												
LMAC					1										
MCAP			1				1				1		1		
MCEP													1		
MDOL															
MFLU													3		
MPUN						1									
MSAL		1		3	1	1		1		1	1				
OMOS	1		1	1	1	3	1	1	1	1	1	1	1	1	1
OMYK															
ONIL			1												
PPHI							1	1	1	1	1	1	1	3	
PRET			1										1		
STRU															
TREN			1	1											
TSPA	1					1	1	1	1	1					

MAP OF WMA 11 (MVOTI TO MZIMKULU) FISH SITES



WMA 12 MZIMKULU TO KEISKAMMA

FROC SITE CODE	R1KEIS-SANDI	R1KEIS-EBB&F	R1KEIS-N2BRI	R1KEIS-DOUBL	R1TYUM-DAMUP	R3GQUN-FA374	R3KWEL-COAST	R3NAHO-CHRIS	R4BUFF-BPASS	R4BUFF-HORSE	R4BUFF-ZWELI	R4YELL-CBUFF	S1WKEI-XONXA
LATITUDE	-32.71111	-33.18555	-33.06333	-32.98500	-32.63468	-32.84583	-32.82880	-32.85278	-33.0065	-32.82250	-32.93178	-32.92160	-32.04333
LONGITUDE	27.13722	27.39111	27.21305	26.93611	26.93916	27.92639	28.00970	27.65166	27.8256	27.380278	27.439472	27.47990	27.36667
WMA	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma
QUAT	R10C	R10L	R10L	R10J	R10F	R30D	R30B	R30E	R20G	R20B	R20D	R20E	S10J
MAJOR RIVERS	Keiskamma	Keiskamma	Keiskamma	Keiskamma	Keiskamma	Gqunube	Kwelera	Nahoon	Buffalo	Buffalo	Buffalo	Buffalo	Kei
TRIBUTARY					Tyume							Yellow woods	Wit Kei
ECOREGION	16.07	31.01	31.01	31.01	16.07	31.02	31.02	16.07	31.01	31.02	31.01	31.02	18.02
GEOMORPH ZONE	D	F	E	E	D	D	E	D	E	E	E	D	E
ALTITUDE	638	35	157	283	715	88	87	325	339	420	327	346	753
FISH													
AAEN		1				3	3		3				
ABER						3	3		3				
ABIC		3		3		3			1	3	3	1	3
ALAB													
AMAR	1	1	3	3	3	3	3	3	1	3	1	1	3
AMOS	1	1	3	3	3	3	3	1	1	3	1	1	1
BANO	1	1	1	3	3	3	3	1	1	1	1	1	1
BAMA													
BTRV	1			3	3					3			
CCAR				3					1	1	1	1	3
CGAR	1	3	1	3		3			1	1	3	1	1
GAES		1				3	3		1				
GCAL	3	1		3	3	3	1	1	1	1	3		
GGIU													
LAEN													3
LMAC													
LUMB	1	1	1	3	3	1		1	1	1	1	1	
MARG													
MCAP		1	1			1	1		1				
MCEP		1				1	3		3				
MCYP		1											
MDOL										1	3		
MFAL		1				3	3		1				
MFLU													
MPUN								1	1	1	3		
MSAL				3	3	3		1	1	1	1	1	
OMOS		1				1	1		1		1		
OMYK					3					1			
RDEW		1											
SBAI	1		1	3	3			3		3	1	1	
TSPA	1	1	1	3	3	1	3	1	1	1	1	1	3

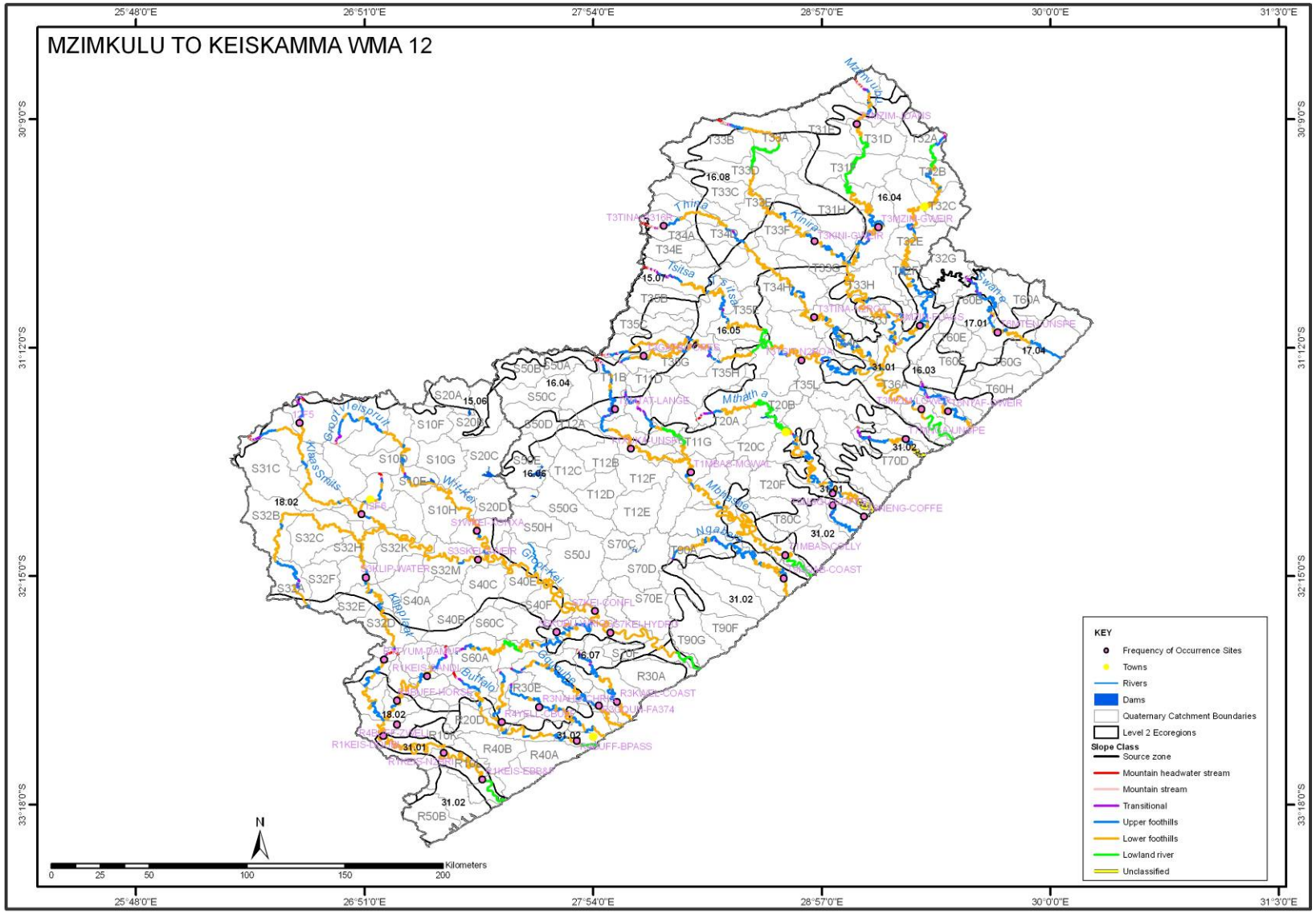
WMA 12 MZIMKULU TO KEISKAMMA CONTINUED

FROC SITE CODE	S3KLIP-WATER	S3SKEI-GWEIR	S7KEI-CONFL	S6KUBU-WRIGG	S7KEI-HYDRO	T1MBAS-COLLY	T1MBAS-MGWAL	T1XUKA-UNSPE	T2MTAT-ROADB	T2MTAT-LANGE	T2NGQU-COFFE	T3GATB-FORES	T3KINI-GWEIR
LATITUDE	-32.25667	-32.17500	-32.41158	-32.50722	-32.51111	-32.1538	-31.77325	-31.66478	-31.92581	-31.4825	-31.86836	-31.23780	-30.71203
LONGITUDE	26.85583	27.37167	27.90924	27.73111	27.98	28.7823	28.3481	28.07394	29.136111	28.493278	28.871222	28.13190	28.91649
WMA	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma
QUAT	S32G	S32M	S70A	S60E	S70B	T13E	T11H	T11C	T20G	T20A	T20F	T35G	T33G
MAJOR RIVERS	Kei (Swart)	Kei	Kei	Kubusi	Kei (Great)	Mbashe	Mbashe	Mbashe	Mtata	Mtata	Mtata	Mzimvubu	Mzimvubu
TRIBUTARY	Klipplaat	Swart Kei		Kei				Xuka			Ngqungqu	Gatberg	Kinira
ECOREGION	18.02	18.02	16.06	16.07	16.06	31.01	16.06	16.06	31.01	16.06	16.06	16.04	16.05
GEOMORPH ZONE	E	E	E	D	E	E	E	E	Unclassified	E	E	E	E
ALTITUDE	1115	672	275	450	185	77	607	743	6	758	399	1367	1034
FISH													
AAEN					1	1			1				
ABER									3				
ABIC	3		3	3	3	3	3		1				
ALAB													
AMAR		3	1	1	1	1	3	3	1	3	3		
AMOS	1	1	1	1	1	1	3	3	1	3	3	3	3
BANO	1	1	1	1	1	1	1	1	1	1	1	1	1
BAMA								1					
BTRV													
CCAR			3	3	3	3	3	3	1				
CGAR			3	3	3				3				
GAES									3				
GCAL			3		1	1			1		3		
GGIU									3				
LAEN	1	1	1	1	1	3	1	3					
LMAC				1									
LUMB													
MARG									3				
MCAP			1		1	3							
MCEP						1							
MCYP													
MDOL	3									1			
MFAL					3	3			1				
MFLU									3				
MPUN				1						3		1	
MSAL				1	3							1	
OMOS					1	3			1				
OMYK										1		1	
RDEW									3				
SBAI													
TSPA		3	3	3	3	1	3	3	1	1	1	1	3

WMA 12 MZIMKULU TO KEISKAMMA CONTINUED

FROC SITE CODE	T3MZIM-LOWER	T3MZIM-GWEIR	T3MZIM-JOANS	T3MZIN-FLAGS	T3TINA-N2ROA	T3TINA-R316R	T3TSIT-N2ROA	T6MTEN-UNSPE	T6NTAF-GWEIR	T7MNGA-UNSPE	T8NENG-COFFE	T9NQAB-COAST	12F5	12F6
LATITUDE	-31.4833	-30.6461	-30.17314	-31.098722	-31.06051	-30.6405	-31.25868	-31.13025	-31.4933	-31.62012	-31.9768	-32.25972	-31.5465	-31.9666
LONGITUDE	29.4083	29.20922	29.10996	29.40083	28.91574	28.22378	28.85685	29.75630	29.53035	29.33456	29.1438	28.77528	26.5515	26.8354
WMA	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma	Mzimvubu to Keiskamma
QUAT	T36B	T31J	T31D	T32H	T34J	T34A	T35L	T60C	T60K	T70C	T80A	T90B	S31A	S31G
MAJOR RIVERS	Mzimvubu	Mzimvubu	Mzimvubu	Mzimvubu	Mzimvubu	Mzimvubu	Mzimvubu	Mtentu	Ntafufu	Mngazana	Nenga	Ngabara	Swart Kei	Swart Kei
TRIBUTARY				Mzintlava	Tina	Tina	Tsitsa						Hex	Klaassmits
ECOREGION	31.01	16.04	16.04	31.01	16.06	15.07	16.06	17.01	31.01	31.02	31.02	31.02	18.03	18.02
GEOMORPH ZONE	E	E	E	D	E	D	E	D	D	E	Unclassified	D	D	E
ALTITUDE	138	76	1503	383	799	1575	788	288	208	93	21	46	1422	1082
FISH														
AAEN	3							3	3	3		3		
ABER	3													
ABIC	3								3	3	3			
ALAB									3	3	3	3		
AMAR	3							3	1	3	3	3		
AMOS	1	1	3	1	1	3	1	1	1	3	3	3	3	3
BANO	1	1	1	1	1	1	3	1	1	3	3	1	3	3
BAMA														
BTRV														
CCAR	1	3		1			1							
CGAR														
GAES	3													
GCAL	1							3	1	1	1	1		
GGIU	3								3	3	1	1		
LAEN														
LMAC	3													
LUMB														
MARG	3							3						
MCAP	3							1	3	3	1			
MCEP	3										1			
MCYP	3													
MDOL			3											
MFAL								3	3	3	1			
MFLU														
MPUN		3												
MSAL				1				1						
OMOS	1							1	1	1	3	1		
OMYK		1	3			3								
RDEW									3			3		
SBAI														
TSPA														

MAP OF WMA 12 (MZIMKULU TO KEISKAMMA) FISH SITES



WMA 13 UPPER ORANGE

FROC SITE CODES	D2LEEU-EWR06	D2LCAL-EWR01	D2CALE-EWR03	D2CALE-LADYB	D2CALE-TUSSE	C5BOKR-RUSTF	C5GANN-CMODD	C5KAAL-KRUGE	C5KEER-SOETD	C5KMOD-BOTSH	C5KORA-MOCKE	C5RENO-BLOEM	C5SEPA-THABA	C5MODD-SANNA
LATITUDE	-29.52197	-28.52683	-28.72231	-29.35431	-30.45233	-29.37142	-29.45556	-28.97005	-28.82487	-29.25000	-29.08107	-28.96560	-29.16306	-29.16111
LONGITUDE	27.13561	28.48131	28.15083	27.43431	26.27088	26.57491	26.73611	25.80632	26.23331	26.65750	26.62615	26.33460	26.59528	26.57194
WMA	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange
QUAT	D23D	D21D	D21H	D22L	D24J	C52A	C52A	C52J	C52G	C52B	C52C	C52F	C52B	C52B
MAJOR RIVERS	Caledon	Caledon	Caledon	Caledon	Oranje	Modder	Modder	Modder	Modder	Modder	Modder	Modder	Modder	Modder
TRIBUTARY	Leeuspruit	Little Caledon			Caledon	Bokrom spruit	Ganna spruit	Kaalspruit	Keerom spruit	Klein Modder	Korannaspruit	Renoster Spruit	Sepane Spruit	Sanna spos
ECOREGION	11.03	15.03	15.01	15.01	26.03	11.1	11.03	26.02	11.08	11.03	11.03	11.01	11.03	11.03
GEOMORPH ZONE	E	E	F	F	F	E	E	E	E	E	E	E	E	E
ALTITUDE	1459	1733	1581	1485	1271	1407	1451	1234	1284	1382	1350	1299	1347	1337
FISH														
ASCL				3	3									
BAEN	3	3	3	3	3	1	3	3	3	1	3	1	1	1
BANO	1	1	3	3	3	1	3	3	3	1	3	1	1	1
BPAL														
BPAU	3				3									
BTRI														
BKIM				3	3	1	3				3		3	3
CCAR					3		3				3	1	1	1
CGAR	1			3	3	1	3	3	3	1	3	1	1	1
GAFF												1		
LCAP	1	1	3	3	3	1	3	3	3	1	3	1	1	1
LUMB	1			3	3	1	3	3	3	1	3	1	1	1
MSAL														
OMYK		1	1											
PPHI								3	3			1		
STRU														
TSPA								3	3			1		

WMA 13 UPPER ORANGE CONTINUED

FROC SITE CODES	C5MODD-GLENS	C5MODD-PERDE	13MF1	13MF2	13MF3	13MF4	13MF5	13MF7	13MF9	C5FOUR-KALKF	C5KROM-CRIET	C5TIER-TIERP	C5RIET-EWR09	C5RIET-IFR03
LATITUDE	-28.91027	-28.99497	-29.59028	-29.32917	-29.27106	-29.05056	-28.80722	-28.88667	-29.02833	-29.66773	-29.649	-29.46536	-30.11153	-29.57528
LONGITUDE	26.26747	25.08063	26.70694	26.64083	26.61584	26.46028	26.10694	25.95528	24.63833	26.070557	25.460561	25.98566	25.849617	25.70805
WMA	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange
QUAT	C52G	C52L	C52A	C52A	C52B	C52E	C52G	C52H	C52L	C51A	C51H	C51A	C51G	C51F
MAJOR RIVERS	Modder	Modder	Modder	Modder	Modder	Modder	Modder	Modder	Modder	Riet	Riet	Riet	Riet	Riet
TRIBUTARY	Riet	Riet	Riet	Riet	Riet	Riet	Riet	Riet	Riet	Fourie spruit	Kromelenboogspruit	Tierpoort	Vanzyl spruit	
ECOREGION	11.08	26.02	11.03	11.03	11.03	11.1	11.08	26.02	29.02	26.03	26.03	26.03	26.03	26.03
GEOMORPH ZONE	F	F	D	E	E	E	F	F	F	E	E	E	E	E
ALTITUDE	1282	1154	1505	1383	1376	1311	1265	1237	1112	1358	1259	1338	1433	1271
FISH														
ASCL	1							1						
BAEN	3	1		1	1	1	1	1	1	1	3	3		1
BANO	3	1	1	1	1	1	1	1	1	1	3	3	1	1
BPAL		1												
BPAU		1							1					
BTRI														
BKIM	3	3		1	1	1	3	1	3	1	3	3		3
CCAR	3	1		1	1	1	1	1	1	1	3	3		3
CGAR	3	1	1	1	1	1	1	1	1	1	3	3		1
GAFF							1	1	1					
LCAP	3	1		1	1	1	1	1	1	1	3	3		1
LUMB	3	1		1	1	1	1	1	1	1	3	3		3
MSAL														
OMYK														
PPHI	3	1					1	1	1	3	3	3		1
STRU														
TSPA	3	1					1	1	1	3	3	3		1

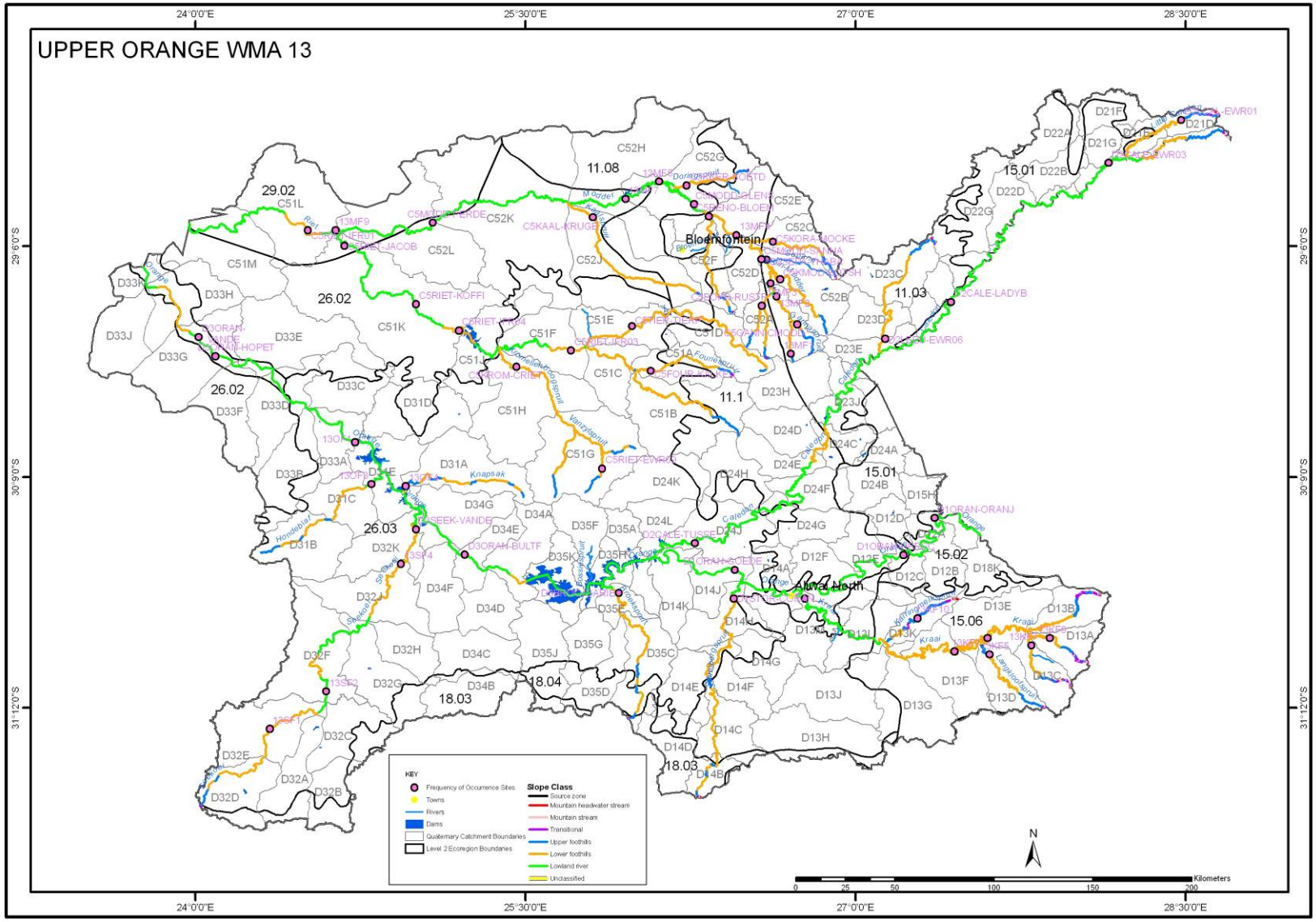
WMA 13 UPPER ORANGE CONTINUED

FROC SITE CODES	C5RIET-IFR04	C5RIET-KOFFI	C5RIET-JACOB	C5RIET-IFR01	D1KRAA-BARKL	D1KRAA-CORAN	13KF1	13KF5	13KF7	13KF9	13KF10	D3BROO-GARIE	D3SEEK-VANDE	13SF1
LATITUDE	-29.48389	-29.36386	-29.09815	-29.02805	-30.88298	-30.70364	-30.9444	-30.9583	-30.91667	-30.88333	-30.79252	-30.67802	-30.38766	-31.29614
LONGITUDE	25.19861	25.00367	24.67906	24.5125	27.59969	26.77132	27.45	27.6083	27.8	27.88333	27.28144	25.92588	25.00357	24.33841
WMA	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange
QUAT	C51K	C51K	C51K	C51L	D13E	D13M	D13F	D13D	D13C	D13A	D13K	D35E	D32K	D32E
MAJOR RIVERS	Riet	Riet	Riet	Riet	Orange	Orange	Orange	Kraai	Kraai	Kraai	Kraai	Orange	Orange	Orange
TRIBUTARY					Kraai	Kraai	Kraai	Bell	Sterkspruit	Bokspruit	Karring melkspruit	Brook spruit	Seekoei	Seekoei
ECOREGION	26.02	26.02	29.02	29.02	15.06	26.03	15.06	15.06	15.06	15.06	15.06	26.03	26.03	26.03
GEOMORPH ZONE	E	E	F	E	E	F	E	E	E	E	D	E	E	E
ALTITUDE	1194	1167	1123	1081	1762	1312	1556	1767	1752	1761	1675	1270	1188	1431
FISH														
ASCL	3	3	3	3	3		1					3		
BAEN	1	3	3	1	3	3	1	1	1	1	1	3	1	
BANO	1	3	3		3	3	1	1	1	1	3	3	1	1
BPAL														
BPAU														
BTRI														
BKIM	1	3	3	1		3						3		
CCAR	1	3	3	3								3	1	
CGAR	1	3	3	1	3	3	1					3	1	
GAFF														
LCAP	1	3	3	1	3	3	1	1	1	3	3	3	1	
LUMB	1	3	3	3	3	3	3					3	1	
MSAL													1	
OMYK					3			1		1				
PPHI		3	3	1								3		
STRU					3									
TSPA		3	3	1								3		

WMA 13 UPPER ORANGE CONTINUED

FROC SITE CODES	13SF2	13SF4	D1STOR-CORAN	D1ORAN-ORANJ	D1ORAN-HERSC	D1ORAN-GOEDE	D3ORAN-BULTF	D3ORAN-VANDE	13OF1	13OF3	13OF4	D3ORAN-HOPET
LATITUDE	-31.12651	-30.54596	-30.70364	-30.33667	-30.50472	-30.57305	-30.50305	-29.51361	-29.99167	-30.1833	-30.19243	-29.60070
LONGITUDE	24.59573	24.93556	26.44681	27.35889	27.21889	26.45305	25.22555	24.01488	24.726389	24.8	24.95654	24.09160
WMA	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange	Upper Orange
QUAT	D32F	D32J	D14H	D12A	D12C	D14J	D34E	D33G	D33A	D31E	D31E	D33G
MAJOR RIVERS	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange
TRIBUTARY	Seekoei	Seekoei	Stormberg spruit							Hondeblaf River	Knapsak River	
ECOREGION	26.03	26.03	26.03	15.02	11.1	26.03	26.03	26.01	26.03	26.03	26.03	26.01
GEOMORPH ZONE	F	E	E	F	F	F	F	F	F	F	C	F
ALTITUDE	1365	1229	1326	1405	1348	1279	1174	1044	1113	1172	1195	
FISH												
ASCL				3	3	3	3		1			1
BAEN	3	1	3	3	3	3	3	1	1	1	1	
BANO	1	1	3	3	3	3	3	1	1	1	1	1
BPAL												
BPAU								1				3
BTRI								1	1			1
BKIM				3	3	3	3	1	1	3	1	1
CCAR		1		3	3	3	3	3	1	1		
CGAR	1	1	3	3	3	3	3		1		3	1
GAFF												
LCAP	1	1	3	3	3	3	3	1	1	3	1	1
LUMB	1	1	3	3	3	3	3	1	1	1	3	1
MSAL		1										
OMYK												
PPHI						3	3	1	3			1
STRU												
TSPA						3	3	3	1			1

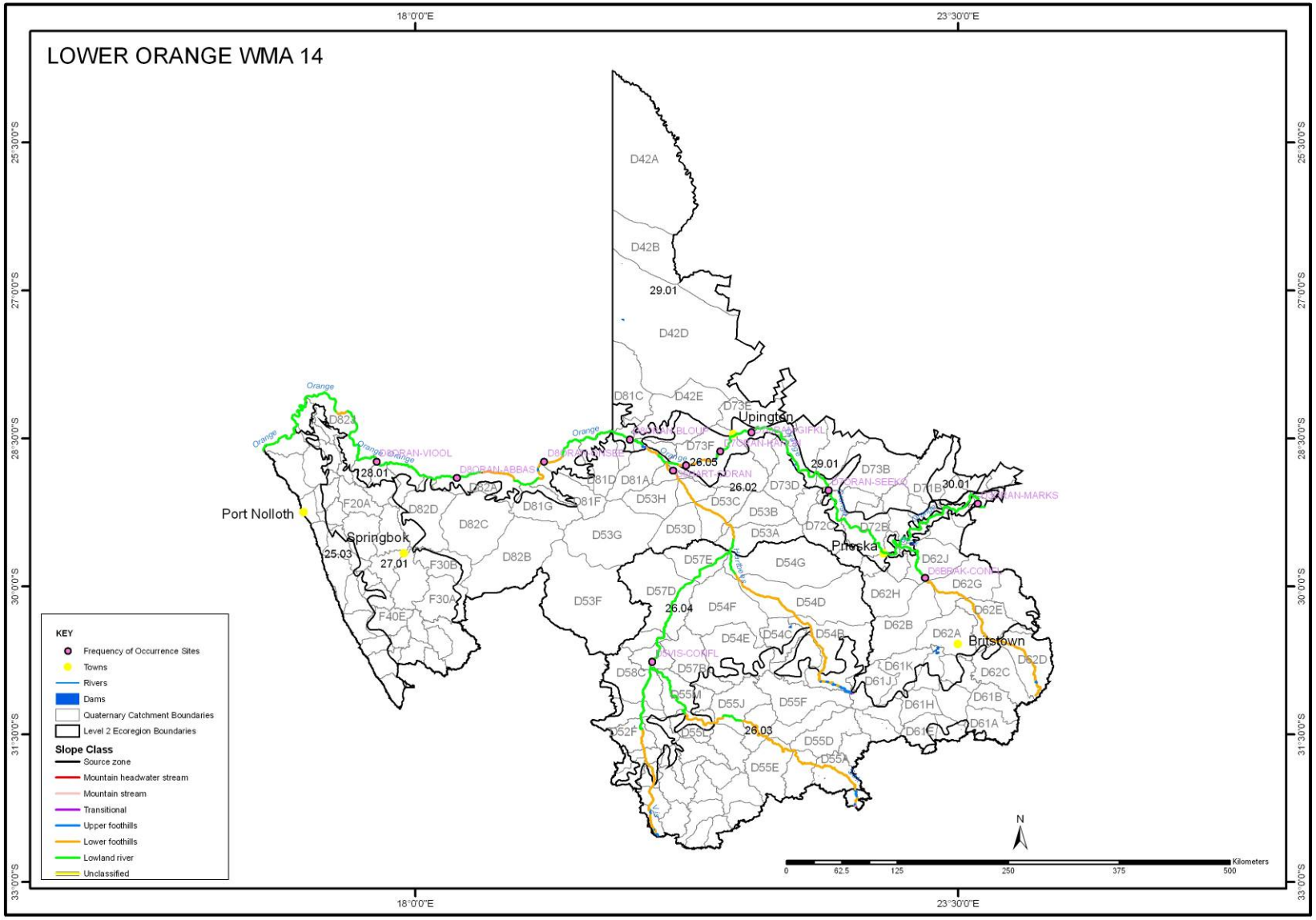
MAP OF WMA 13 (UPPER ORANGE) FISH SITES



WMA 14 LOWER ORANGE

FROC SITE CODE	D3ORAN-HOPET	D7ORAN-SEEKO	D7ORAN-GIFKL	D7ORAN-KANON	D7ORAN-NEUSB	D8ORAN-BLOUP	D8ORAN-ONSEE	D3ORAN-MARKS	D8ORAN-ABBAS	D8ORAN-VIOOL	D8ORAN-BOOMR	D8ORAN-SENDE	D5HART-CORAN	D5VIS-CONFL	D6BRAK-CONFL
LATITUDE	-29.60070	-29.02812	-28.43861	-28.63448	-28.77198	-28.51115	-28.73682	-29.16207	-28.90205	-28.73628	-28.04051	-28.10722	-28.82870	-30.76450	-29.91440
LONGITUDE	24.09160	22.18756	21.40583	21.09293	20.74555	20.17482	19.30714	23.69651	18.42036	17.60923	17.06967	16.88319	20.61260	20.40310	23.16510
WMA	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange	Lower Orange
QUAT	D33G	D73B	D73E	D73F	D73F	D81B	D81E	D33K	D82A	D82G	D82J	D82K	D53J	D57A	D62J
MAJOR RIVERS	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Hartbees	Orange
TRIBUTARY													Hartbees	Vis/Sak	Brak
ECOREGION	26.01	26.05	26.05	26.05	26.05	28.01	28.01	26.01	28.01	28.01	28.01	28.01	26.02	26.04	26.02
GEOMORPH ZONE	F	F	F	F	E	F	E	F	F	F	F	F	E	F	E
ALTITUDE (m)	1056	881	809	768	678	446	363	989	209	147	56	36	687	942	987
FISH															
ASCL	3	3	3	3	3	3	1	3	3	3	3	1			
BANO	3	3	3	3	3			3					3	3	3
BHOS						1	1		1	1	3	3			
BPAL															
BPAU		3	3	3	1	1	3	3	1	1	3	1			
BTRI	3	3	3	3	1	1	1	3	1	1	3	1			
BAEN	3	3	3	3	1	3	1	1	1	1	3	1	3	3	3
BKIM	3	3	3	3	1	3	1	1	3	3	3	3			
CAUR															
CCAR	3	3	3	3				3						3	
CGAR	3	3	3	3	1	3	3	3	1	1	3	1	3		3
GAES															
LCAP	3	3	3	3	1	1	1	1	1	1	3	1	3	3	3
LRIC												1			
LUMB	3	3	3	3	3	3	1	1	3	3	3	3	3	3	3
MBRE						1	3		1	1	3	1			
OMOS										1	3	1			
PPHI	3	3	3	3	1	1	1	3	1	1	3	1	3		
TSPA	3	3	3	3	1	1	3	3	1	1	3	3	3		

MAP OF WMA 14 (LOWER ORANGE) FISH SITES



WMA 15 FISH TO TSITSIKAMA

FROC SITE CODE	Q9KAT-HERTZ	Q9KAT-AMHUR	Q1FISH-GRASR	Q8KFIS-R337B	Q8KFIS-COOKH	Q5FISH-CRADO	Q9FISH-GLENM	Q9FISH-CARLI	P1BOES-ALICE	P1BOES-ESTUA	N1SUND-N9ROA	N2SUND-R400R
LATITUDE	-32.57	-32.62203	-31.638	-32.4209	-33.0957	-32.43946	-33.141	-33.08328	-33.359	-33.61712	-31.9543	-33.0712
LONGITUDE	26.721917	26.68495	25.4696	25.4433	25.8175	25.75265	26.8262	26.2255	26.06722	26.54313	24.7767	25.0025
WMA	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma
QUAT	Q94B	Q94D	Q31A	Q80B	Q80G	Q50A	Q93A	Q91B	P10E	P10G	N11A	N22C
MAJOR RIVERS	Fish	Fish	Fish	Fish	Fish	Fish	Fish	Fish	Boesmans	Boesmans	Sundays	Sundays
TRIBUTARY	Kat	Kat	Groot Brak	Klein Vis	Klein Vis							
ECOREGION	18.02	18.02	18.01	18.03	18.02	18.01	18.02	18.02	19.01	20.01	18.03	21.05
GEOMORPH ZONE	D	E	E	D	E	E	E	E	E	F	E	E
ALTITUDE	637	548	1099	1170	483	792	100	403	263	43	1335	282
FISH												
AAEN												
ABIC												
ALAB							3					
AMAR	1	3	3		3	3	1	3	3	1		3
AMOS	1	1	3	3	3	1	1	1	3	1	3	3
ASCL			1									
BANO	1	1	1	1	1	1	1	1	1	1	1	1
BKIM			3									
BPAL					3		3	3	3	3		3
CCAR			3		3	1	1	3	3		1	1
CGAR			1		3	1	1	1			1	1
GAES										1		1
GCAL	1	1			3		3	3	1	1	3	1
LAEN			1	3	1	1	1	1				3
LCAP			1		1	1	1	1				
LMAC												
LRIC												
LUMB	1	1	1	3	1	1	1	1	1	1	1	1
MCAP							1			1		
MCEP							1			1		
MFAL							1			1		
MPUN												
MSAL	3	1		3					1	1		
OMOS										1		1
OMYK				3								
PAFE												
PASP												
PPHI												
SBAI	1	1										
SCAP												
TSPA	1	1	3	3	1	1	3	3	1	1	1	1

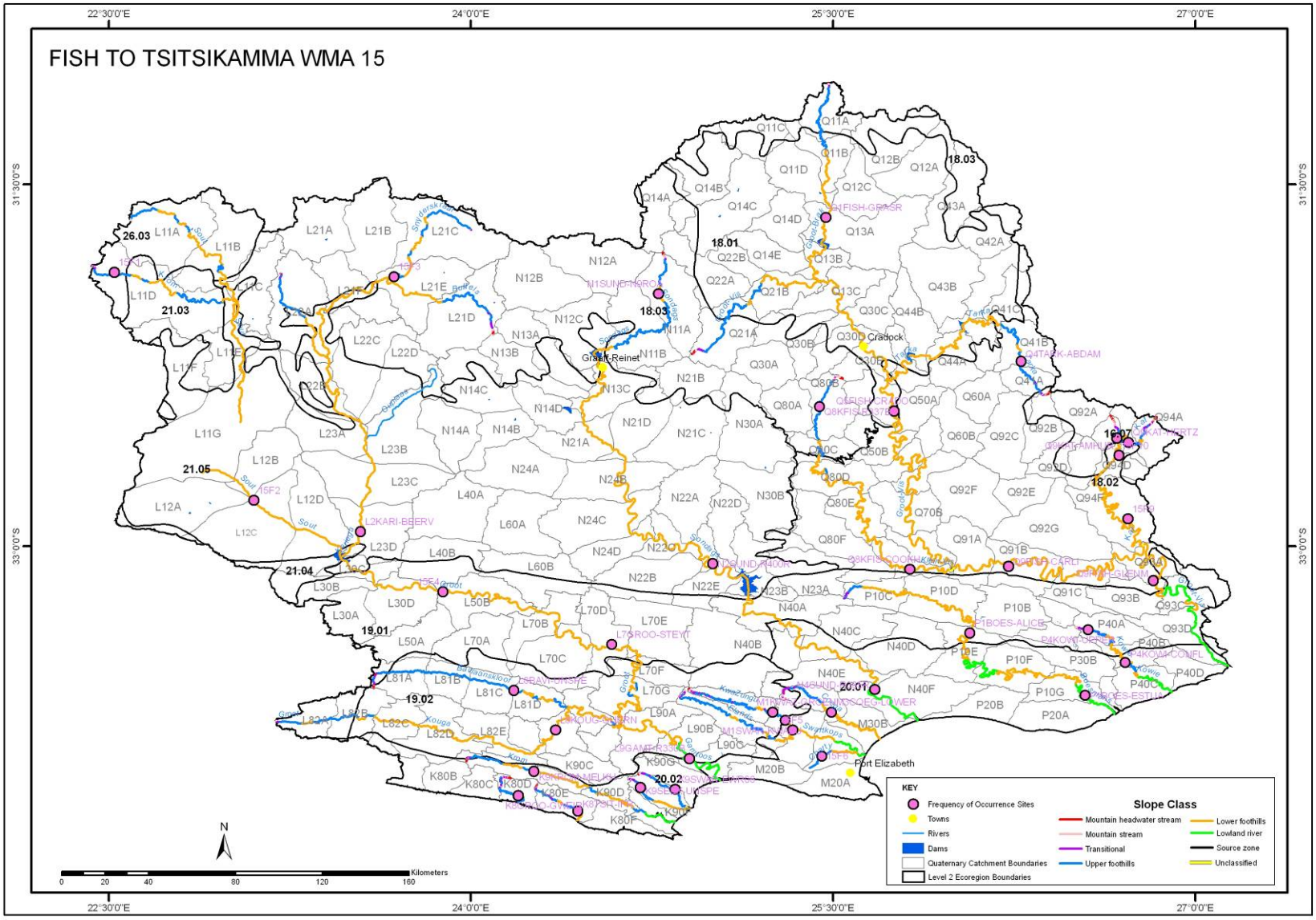
WMA 15 FISH TO TSITSIKAMA CONTINUED

FROC SITE CODE	N4SUND-R335R	M1KWAZ-GROEN	M1SWAR-KWAZU	L2KARI-BEERV	L7GROO-STEYT	L8KOUG-GUERN	L9GAMT-R330B	K9SWAR-EWR06	K9SEEK-UNSPE	K9KROM-MELKH	K8TSIT-IFR	K8GROO-GWEIR
LATITUDE	-33.59292	-33.6875	-33.72177	-32.93957	-33.4074	-33.76111	-33.879	-34.007	-33.99947	-33.93175	-34.09611	-34.03222
LONGITUDE	25.67198	25.249	25.30165	23.54252	24.58305	24.35	24.905	24.8459	24.701883	24.261333	24.4425	24.195833
WMA	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma
QUAT	N40F	M10A	M10C	L23D	L70D	L82G	L90C	K90F	K90F	K90A	K80E	K80D
MAJOR RIVERS	Sundays	Kwazungu	Swartkops	Gamtoos	Gamtoos	Gamtoos	Gamtoos	Swart	Seekoei	Kromme	Tsitsikamma	Groot (Oos)
TRIBUTARY				Kariga	Groot	Kouga						
ECOREGION	20.01	19.02	20.01	21.05	19.01	19.02	19.02	20.02	20.02	20.02	20.02	20.02
GEOMORPH ZONE	F	E	E	E	E	E	F	D	C	D	D	E
ALTITUDE	26	548	91	726	350	260	48	152	221	233	101	85
FISH												
AAEN	1											
ABIC	1				3		3					
ALAB												
AMAR	1	3	3		3	3	1	3		3	3	3
AMOS	1	3	1		3	3	1	1	3	3	1	1
ASCL												
BANO	1			1	3							
BKIM												
BPAL	1	1	1			3	1					
CCAR	1		1	3	3		1					
CGAR	1		1		3	1	3					
GAES	1						1					
GCAL	1	1	1	3	3	1	1	3				
LAEN												
LCAP												
LMAC						1	1			1		
LRIC							3					
LUMB	1			1	1	1	1					
MCAP	1		3			3	1				3	3
MCEP	1						1					
MFAL	1						1					
MPUN						1	1					
MSAL	3	1	1			1	1	1		1		
OMOS	1		3				1					
OMYK												
PAFE		1	1			1	3	1	1	1	1	1
PASP				3	1		3					
PPHI												
SBAI												
SCAP		1	1			1	3	1	1	1	1	
TSPA	1		3	3	3	1	1					

WMA 15 FISH TO TSITSIKAMA CONTINUED

FROC SITE CODE	L8BAVI-UNSPE	Q4TARK-ABDAM	P4KOWI-UPPER	P4KOWI-CONFL	M3COEG-LOWER	15F1	15F2	15F3	15F4	15F5	15F6	15F9	15F10
LATITUDE	-33.59673	-32.23291	-33.34538	-33.4812	-33.68699	-31.8653	-32.8103	-31.8832	-33.1887	-33.7615	-33.8703	-32.8869	-32.5514
LONGITUDE	24.17784	26.27931	26.55707	26.7098	25.49295	22.5229	23.1012	23.6818	23.885	25.3324	25.4537	26.7216	26.6748
WMA	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma	Fish to Tsitsikamma
QUAT	L81D	Q41B	P40A	P40B	M30A	L11D	L12C	L21E	L50B	M10C	M10D	Q94F	Q94C
MAJOR RIVERS	Kouga	Groot Vis	Kowie	Kowie	Coega	Sout	Sout	Snyder skraal	Gamtoos	Swartkops	Swartkops	Vis	Kat
TRIBUTARY	Baviaan skloof	Tarka				Krom	Amos		Groot	Elands	Chatty River	Kat	Balfour
ECOREGION	19.02	18.02	19.01	20.01	20.01	26.03	21.05	18.03	19.01	20.01	20.01	18.02	16.07
GEOMORPH ZONE	D	D	C	E	E	D	F	D	E	E	D	E	D
ALTITUDE	895	1345	392	195	107	1558	819	1191	802	109	153	346	897
FISH													
AAEN													
ABIC				3									
ALAB													
AMAR	3		3	1	3				3	3	3	3	3
AMOS	3	3	3	1	3	3	3	3	3	1	3	3	1
ASCL													
BANO		1	1	1	1	1	3	3	3			3	1
BKIM													
BPAL			1	1	1					3	3		
CCAR									3				
CGAR	3						3		3				
GAES				1	1								
GCAL	3		1	1	1					1	1	1	1
LAEN													
LCAP													
LMAC													
LRIC													
LUMB	3						3		3			1	3
MCAP				1	1					1	3		
MCEP					3					1			
MFAL					3						3		
MPUN				1									
MSAL	3		3	1	1								
OMOS					1								
OMYK													
PAFE	1				1					1	3		
PASP							3	3	3				
PPHI											1		
SBAI			1	1						1		3	1
SCAP	1				1						1		
TSPA	3				1				3			1	1

MAP OF WMA 15 (FISH TO TSITSIKAMA) FISH SITES



WMA 16 GOURITZ

FROC SITE CODE	H8DUIW-LOWER	H9GOUK-GWEIR	H9GOUK-LOWER	K1KOUM-ROADB	K1MOOD-MOORD	K3KEUR-MONTA	K3GWAI-EXPER	K3TOUW-BOSPL	K4WOLWE-BARNA	K4HOMT-KNYSN	K4KARA-LAKEK	K5KNYS-CHARL	K6KEUR-DEVLU
LATITUDE	-34.25164	-34.08970	-34.26830	-33.96108	-34.01210	-33.90450	-34.00639	-33.94692	-33.9737	-33.83630	-33.99340	-33.99233	-33.81093
LONGITUDE	20.99183	21.29670	21.29940	21.97733	22.14028	22.41550	22.40417	22.61292	22.7207	22.90060	22.82740	23.00189	23.17521
QUAT	H80E	H90C	H90D	K10C	K10F	K30B	K30B	K30D	K40D	K40E	K40C	K50B	K60B
MAJOR RIVERS	Duiwen hoeks	Goukou	Goukou	Kouma	Moordkuil	Keur bridge	Gwaing	Touws River	Wolwe (Diep)	Gou kamma	Karatara	Knysna	Keur booms
TRIBUTARY										Homtini			
ECOREGION	22.01	22.02	22.02	22.02	22.02	20.02	22.02	20.02	20.02	20.02	20.02	20.02	20.02
GEOMORPH ZONE	F	E	E	D	D	C	D	D	B	C	D	D	D
ALTITUDE (m)	22	101	64	214	28	391	161	145	66	598	93	85	337
FISH													
ABIC												1	
ABRE													
ALAB	3												
AMAR	3	3	3	3	3		3	3	3				
AMOS	1	3	1	3	3	3	3	3	3	3	3	1	1
BANO													
CCAR													
CGAR													
GAES	3		3				3				3	3	
GAFF	1		3								1	1	
GCAL									1		3	1	
GZEB	1	1	1	1	3	1	1		1			0	1
HCAP													
LAEN													
LMAC	1	1	3										
LRIC	3	3	3				3						
LUMB													
MARG	3		3										
MCAP	1	3	1		3		3		1		3	1	
MCEP	3	3	1				3						
MDOL		1											
MFAL	1	1	3						1		3	1	
MPUN					1								
MSAL	3	1											
OMOS							3						
OMYK													1
PAFE				1	3			1		1	1	1	1
PASP													
PBUR	1	1	1										
PRET													
PTEN													1
RDEW	3												
SCAP	1	1	1	1	3	3	3	1	1	1	1	1	1
STRU													1
TSPA	1		3				3						1

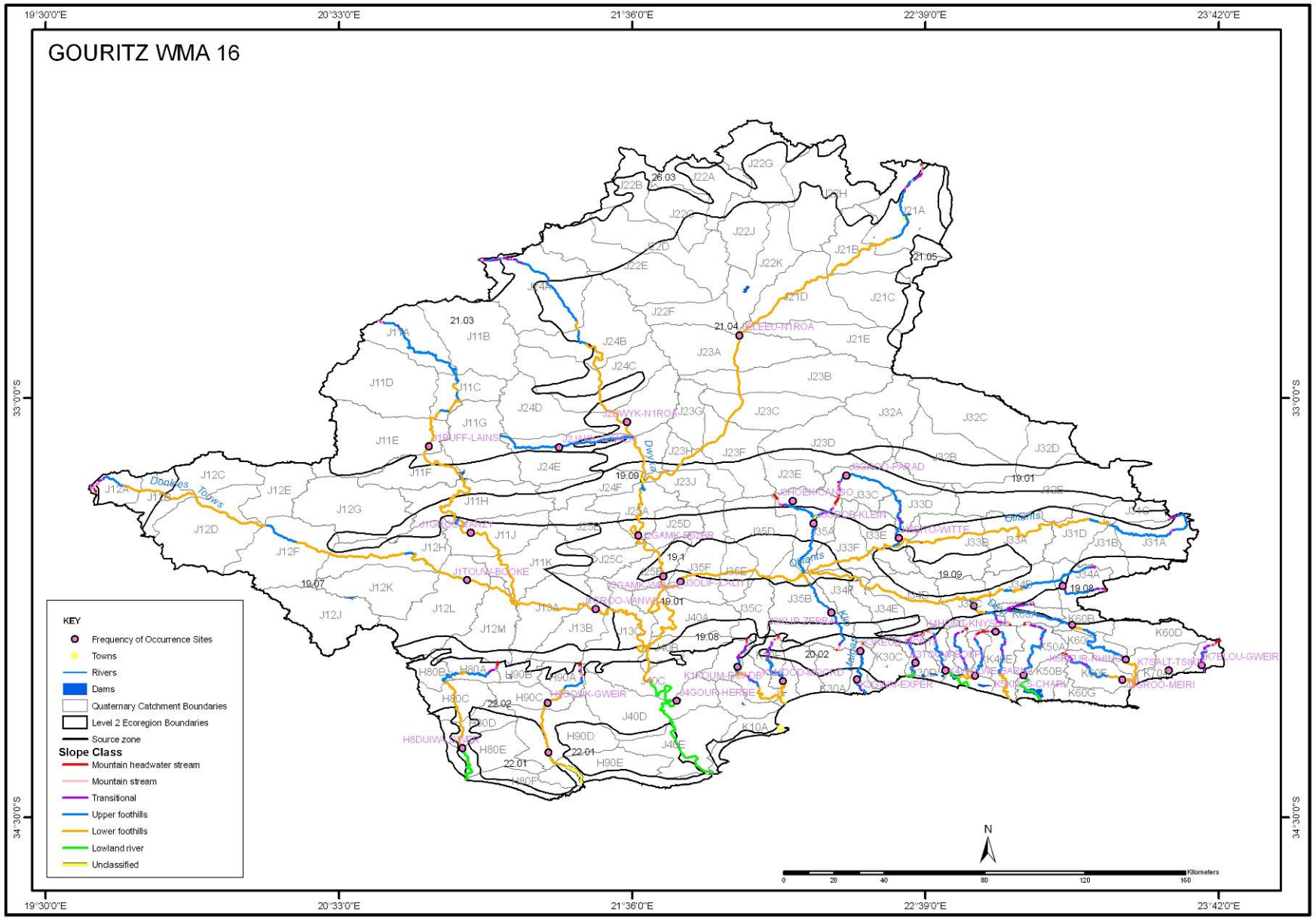
WMA 16 GOURITZ CONTINUED

FROC SITE CODE	K6KEUR-RHINO	K6BITO-WITTE	K7SALT-TSIKM	J1BUFF-LAINS	J4GOUR-HERBE	J1GROO-VANWY	J1TOUW-BOOKE	J1GROO-VANZY	J2GAMK-R62BR	J2GAMK-WELGE	J3HOEK-CANGO	J3GROB-KLEIN
LATITUDE	-33.93540	-33.50021	-33.97388	-33.17157	-34.0834	-33.75492	-33.65117	-33.4814	-33.49112	-33.6377	-33.36753	-33.44747
LONGITUDE	23.36760	22.55401	23.52120	20.87222	21.7584	21.4681	21.0086	21.0218	21.62222	21.7108	22.17421	22.24897
QUAT	K60E	J33E	K70A	J11E	J40D	J13B	J12L	J11J	J25A	J25E	J35A	J35A
MAJOR RIVERS	Keur booms	Bitou	Salt	Buffels	Gouritz	Groot (Gouritz)	Gouritz	Gouritz	Gouritz	Gouritz	Grob belaars	Olifants
TRIBUTARY						Groot	Touws	Groot	Gamka	Gamka	Hoek	Grob belaars
ECOREGION	20.02	19.01	20.02	21.03	22.02	19.07	19.07	19.07	19.01	19.01	19.09	19.01
GEOMORPH ZONE	D	D		E	F	E	E	E	E	E		D
ALTITUDE (m)	102	423	128	673	16	190	309	429	275	208	761	536
FISH												
ABIC	3				0							
ABRE												
ALAB												
AMAR		3	3		3							
AMOS	1	1	1	3	3	3	3	3	3	3	1	3
BANO				1	1	1	1	1	1	1	1	
CCAR					1	3					3	
CGAR												
GAES	3	3			3							
GAFF					1							
GCAL	3	3			3							
GZEB	1	1			1	3			1	3	1	3
HCAP												
LAEN					1	1			1	1		
LMAC					3							
LRIC		3										
LUMB				3	1	1	1	1	1	1		
MARG												
MCAP	3	1			3							
MCEP					3							
MDOL					1						1	1
MFAL	3	1			3							
MPUN												
MSAL					1				1	1		
OMOS					0				1	1		
OMYK	3										1	1
PAFE	1	3										
PASP				3	1	1	1	1	1	1	1	1
PBUR												
PRET												
PTEN		3				1					1	1
RDEW												
SCAP	1	1			1	1	3		1	1	1	1
STRU	3											
TSPA	1				1	1	1		1	1	1	1

WMA 16 GOURITZ CONTINUED

FROC SITE CODE	J3KLIP-ZEBRA	J3GROO-PARAD	J3GROO-MEIRI	J3OLIF-CALIT	J3KAMM-ALFRED	J3DIEP-CKAMM	J2JAKK-TOWER	J2DWYK-N1ROA	J2LEEU-N1ROA	K7BLOU-GWEIR	16F1	16F2	16F3
LATITUDE	-33.7669	-33.2761	-34.00682	-33.65702	-33.67134	-33.74314	-33.17576	-33.08508	-32.77489	-33.95578	-33.5104	-32.9351	-32.9337
LONGITUDE	22.3118	22.3667	23.35536	21.77264	23.140303	22.82314	21.33804	21.579722	21.98344	23.638611	20.3838	20.9749	22.088
QUAT	J35B	J33C	K60F	J35F	J34A	J34C	J24E	J42D	J32A	K70B	J12F	J11C	J23B
MAJOR RIVERS	Gouritz	Gouritz	Gouritz	Gouritz	Olifants	Kammanassie	Dwyka	Gouritz	Gouritz	Bloukrans	Groot	Swart Kraai	Gamka
TRIBUTARY	Klip	Groot	Groot	Olifants	Kammanassie	Diep	Jakkals	Dwyka	Leeu-Gamka		Touws	Buffels	Groot
ECOREGION	19.01	19.09	22.02	19.01	19.01	19.01	21.03	21.04	21.04	20.02	19.07	21.03	21.04
GEOMORPH ZONE	D	D	E	E	C	C	D	E	E	D	D	D	D
ALTITUDE (m)	465	931	6	197	853	591	632	445	546	115			
FISH													
ABIC													
ABRE													
ALAB													
AMAR										3			
AMOS	3	3	3	3	3	3	3	3	3	1	3	3	3
BANO	3			3		3	3	1	1		3	3	3
CCAR				3									
CGAR													
GAES										3			
GAFF													
GCAL				0						3			
GZEB			1	3	1	3							
HCAP													
LAEN				3									
LMAC				1									
LRIC										3			
LUMB				3				3	3		3	3	3
MARG										3			
MCAP				0						3			
MCEP										3			
MDOL	3			3									
MFAL										3			
MPUN													
MSAL				3									
OMOS				3									
OMYK	0	3				3							
PAFE										1			
PASP	3	1	1	3	1	3	3	3	3		3	3	3
PBUR													
PRET													
PTEN	3	1	1	3	1	3					3		
RDEW													
SCAP	3	1	1	3	1	3					3		
STRU													
TSPA	3			1							3		

MAP OF WMA 16 (GOURITZ) FISH SITES



WMA 17 OLIFANTS DORING

FROC SITE Code	E1OLIF-VISGA	E1OLIF-KEERO	E1OLIF-CITRU	E1OLIF-ALGER	E1OLIF-CLANW	E1OLIF-ZYPHE	E3OLIF-KLAWE	E3OLIF-LUTZ	E2DORI-CALVI	E2DORI-KRUIT	E3DORI-OUDRI	E1RATE-BEAVE	E1NOOR-OFFTA	E1ROND-EWR03	E1OLIF-KEURB	E3SOUT-N7BRI
LATITUDE	-33.07694	-32.85000	-32.56500	-32.36528	-32.17389	-31.94055	-31.76944	-31.57813	-32.90346	-32.31394	-31.85691	-32.87361	-32.79444	-32.37033	-32.26472	-31.39677
LONGITUDE	19.21639	19.08500	19.00200	18.95278	18.87111	18.71000	18.61111	18.3823	19.78236	19.55008	18.91317	19.08333	19.09444	19.05361	18.97166	18.66383
WMA	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring
QUAT	E10B	E10D	E10E	E10G	E10J	E10K	E33G	E33H	E22E	E22G	E24M	E10C	E10D	E10G	E10G	E33E
MAJOR RIVERS	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Olifants	Hol
TRIBUTARY			Boontjies						Doring	Doring	Doring	Ratel	Noordhoek	Rondegat	Rondegat	Sout
ECOREGION	23.03	23.01	23.01	23.02	23.02	25.02	25.02	25.02	21.02	21.02	23.02	23.01	23.01	23.01	23.02	25.01
GEOMORPH ZONE	D	E	E	E	E	E	F	F	E	E	E	C	C	C	D	E
ALTITUDE (m)	640	229	340	140	80	40	20	38	532	265	80	998	303	480	160	139
FISH																
ABAR		3	3	3									1			
ABRE								1								
AGIL		3	3	3	3	3	3	3		3	3	1	1	1	3	
BANO					3	3	3	3		3	3					
BCAL		3	3	3	3	3	3	3			3	1	1	1	3	
BCAP	1	3	3	3	1	1	1	1		3	1	1	1	1	1	
BERU																
BSER	1	3	3	3	1	3	1	1		3	1	1	3		1	
CCAR							1	1								
GAES							1	1								
GZEB		3	3		3	3	1	1			3	1	1	1	3	
LMAC		3	1	1	1	1	1	1		1	1				1	
LSEE	1	3	3	1	1	3	3	3		3	1	3	3		1	
LRIC							1	1								
MCAP							1	1								
MCEP						3	1	1								
MDOL		1	1		1	1	1	1		1	1				1	
MPUN					1	1	1	1								
MSAL		1		1	1	1				1						
OMOS					3	1	1	1		3						
OMYK																
PPHL		3	3		3	3							1	1	3	
PBUG																
SCAP																
STRU	1															
TSPA		1	1	1	1	1	1	1								
TTIN																

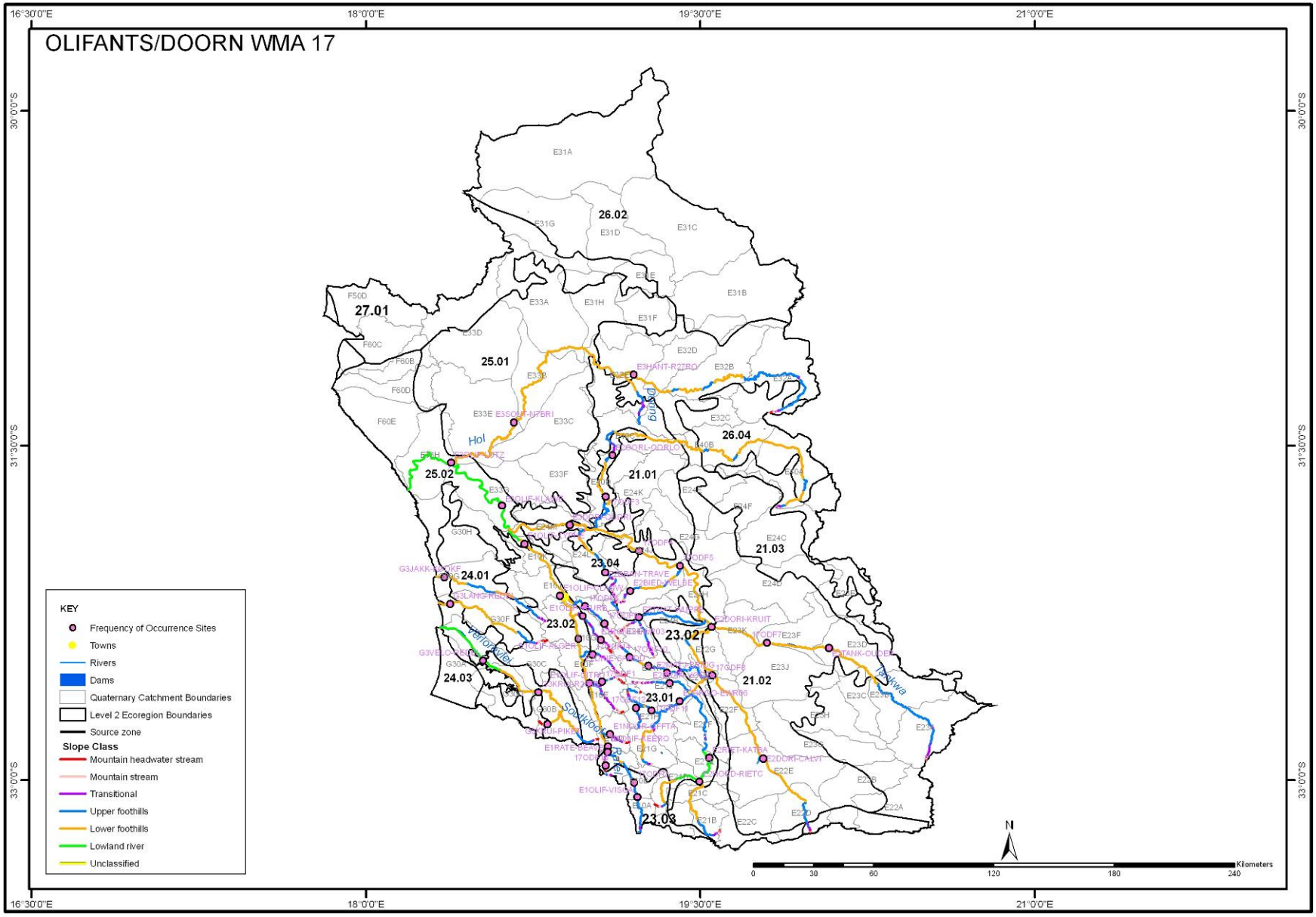
WMA 17 OLIFANTS DORING CONTINUED

FROC SITE Code	E2HOUD-RIETC	E2RIET-KATBA	E2GROO-EWR06	E2BRAN-VOGEL	E2DRIE-SANDD	E2MATJ-BRIDG	E2TRAT-WUPPE	E2BIED-WELBE	E2BRAN-TRAVE	E2OORL-OORLO	E2TANK-OUDER	E3HANT-R27RO	G3VELO-REDEL	G3KRUI-R365B	G3KRUI-PIKET
LATITUDE	-33.00694	-32.89944	-32.64569	-32.565	-32.48778	-32.51862	-32.27089	-32.15195	-32.06861	-31.54495	-32.40759	-31.18244	-32.4644	-32.6061	-32.74830
LONGITUDE	19.49666	19.53889	19.40694	19.3625	19.26750	19.35055	19.22444	19.18523	19.07215	19.10624	20.07553	19.20101	18.5253	18.774	18.81550
WMA	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring
QUAT	E21D	E21E	E21J	E21J	E21K	E21K	E24A	E24J	E24L	E40D	E23D	E32E	G30E	G30B	G30B
MAJOR RIVERS	Doring	Doring	Doring	Groot	Doring	Doring	Doring	Doring	Doring	Doring	Doring	Doring	Velorenvlei	Velorenvlei	Velorenvlei
TRIBUTARY	Houd enbek	Riet	Groot	Brand kraals	Driehoek	Matjies	Tra-Tra	Biedow	Brande wyn	Oorlogs kloof	Tankwa	Hantams		Kruis mans	Kruis mans
ECOREGION	23.01	23.01	23.01	23.01	23.01	23.01	23.02	23.02	23.04	23.02	21.02	21.03	24.04	24.04	24.02
GEOMORPH ZONE	F	F	D	D	D	D	D	D	D	D	E	E	F	E	E
ALTITUDE (m)	933	933	400	600	840	720	480	340	320	400	392	381	18	100	123
FISH															
ABAR															
ABRE															
AGIL				3		1	1	1							
BANO			3	3						1	3	1			
BCAL				3		3	1	1							
BCAP	3	3	1	3	1	1	3	1	3	1	3				
BERU															
BSER	3	3	3	1	1	1	1	1		1					
CCAR													1	1	
GAES													1		
GZEB	3	3	3	3	3	3	1	3					1	1	1
LMAC	3		1			1		3		1					
LSEE	3	3	3	1	3	3	3	1		1	3				
LRIC													1		
MCAP													3		
MCEP													3		
MDOL	3		1	1		1	1	1		1			1		
MPUN			1												
MSAL	3		1	1	1	1		1					1		
OMOS													1		
OMYK															
PPHL				3	1	3									
PBUG													1	1	1
SCAP													1	1	1
STRU															
TSPA									3				1	1	1
TTIN													1		

WMA 17 OLIFANTS DORING CONTINUED

FROC SITE Code	G3LANG-REDEL	G3JAKK-KOOKF	17ODF1	17ODF2	17ODF3	17ODF4	17ODF5	17ODF6	17ODF7	17ODF8	17ODF9	17ODF10	17ODF11	17ODF12	17ODF14	17ODF16
LATITUDE	-32.2105	-32.08941	-32.55861	-33.01	-31.73	-31.9718	-32.03920	-32.22040	-32.38444	-32.53011	-32.29821	-32.44888	-32.68766	-32.67524	-32.4361	-32.934
LONGITUDE	18.37833	18.35241	19.05889	19.203	19.075	19.22597	19.40872	18.98309	19.79963	19.55240	19.06996	19.18247	19.28008	19.21174	19.0159	19.0741
WMA	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring	Olifants/ Doring
QUAT	G30F	G30G	E10E	E10B	E40D	E24J	E24J	E10H	E23F	E21L	E10H	E21K	E21H	E21H	E10F	E10C
MAJOR RIVERS	Langvlei	Jakkals	Boontjies	Olifants	Doring	Doring	Doring	Olifants	Doring	Doring	Olifants	Doring	Groot	Twee	Olifants	Olifants
TRIBUTARY			Boskloof		Koebe			Jan Dissels	Tankwa	Groot	Jan Dissels	Driehoeks	Twee	Middeldeur	Heks	Ratel
ECOREGION	25.02	25.02	23.01	23.03	23.02	23.02	23.02	23.01	21.02	21.02	23.01	23.01	23.01	23.01	23.01	23.01
GEOMORPH ZONE	E	D	C	B	E	E	E	D	E	E	D	D	D	D	C	C
ALTITUDE (m)	19	29	245	460	320	178	198	198	323	393	413	893	655	738	439	689
FISH																
ABAR			1	3				1			1				1	
ABRE																
AGIL			1	3		3	3	1			1				1	
BANO					1	3	3		1							
BCAL			1	3		3	3	1			1				3	1
BCAP			1	3	1	1	1	3		1	3	3	1	1	3	1
BERU													1	1		
BSER			1	3	1	1	1	3		1	3	3			3	1
CCAR																
GAES																
GZEB	1	3	1	3		3	3	1		1	1	3	1	1	3	1
LMAC				3	1	1	1			1			1	1	3	
LSEE				3	1	1	1	3	3	1	3					
LRIC	3	3														
MCAP																
MCEP	3	3														
MDOL		1		1	1	1	1	1		1	1				3	
MPUN										1						
MSAL			1	1						1		3				
OMOS																
OMYK													1	1		
PPHL			1	3								3			3	
PBUG	1															
SCAP	1	3											1	1		
STRU																
TSPA			1	1				1			1					
TTIN																

MAP OF WMA 17 (OLIFANTS DORING) FISH SITES



WMA 18 BREEDE

FROC SITE CODE	H1BREE-MOOIP	H1MOLE-GWEIR	H4BREE-LACHA	H7BREE-FELIX	H6RIVI-GREYT	Proposed Site 1	H6BAVI-GWEIR	H1BREE-WITBR	H1WIT-TWEED	H1WITE-UNSPE	H1KOEK-UCDAM	H1DWAR-CERES	H1TITUS-ACHTE
LATITUDE	-33.51764	-33.72770	-33.81197	-34.15127	-34.75000	-34.69400	-34.2451	-33.4283	-33.56890	-33.44339	-33.33861	-33.34280	-33.39360
LONGITUDE	19.18165	19.18920	19.68617	2.48147	19.61430	2.27935	19.5579	19.26667	19.14410	19.35600	19.26611	19.29651	19.37310
WMA	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede
QUAT	H1F	H1J	H4F	H7G	H6F	H6L	H6E	H1F	H1E	H1D	H1C	H1C	H1B
MAJOR RIVE	Breede	Breede	Breede	Breede	Breede	Breede	Riviersond erend	Breede	Breede	Breede	Dwars	Breede	Breede
TRIBUTARY		Molenaars			Riviersond erend	Riviersond erend	Baviaans		Wit	Witels	Koekedou	Dwars	Titus
ECOREGION	23.3	23.3	19.6	22.2	22.4	22.2	22.4	23.3	23.3	23.3	23.3	23.3	23.2
GEOMORPH_Z	E	C	F	E	E	E	C	D	D	D	D	E	E
PERENNIAL													
ALTITUDE	249	37	187	29	211	91	33	39	29	178	644	469	53
FISH													
ABRE													
ALAB	3	3	3	1	3	3		3	3				
AMAR	3	3	3	1	3	3		3	3				
AMOS	3	3	3	3	3	3	3	3	3	3			
BAND	1	3	1	3	3	1	3	3	3	3	3	3	3
CCAR	3		1	1		1		3				3	
CGAR	3		3			3		3					
GAES			1	1	3	1							
GAFF												3	
GZEB	3	3		3	1		1		1	3	3	3	3
LMAC	1	3	3	3	1	1		3	1				
LRIC			3			3							
MARG				3									
MCAP			3	3	3	3							
MCEP			3	1	3	3							
MDOL	1	1	1		1	1		3	3	3		3	
MFAL			3	1		3							
MPUN													
MSAL	1				1			3				3	
OMOS				1									
OMYK	1	1					3				3		3
PBUR	3	3	3	3	3	3	1	3	1	3	1	3	1
SCAP	1	3	3	3	3	3	1	3	1	3	1	3	1
STRU	3							3		3		3	
TSPA			3	3		3							
TTIN	3		3	3	3	3		3				3	

WMA 18 BREEDE CONTINUED

FROC SITE CODE	H2HEX-AMAND	H4NUY-ABDAM	H4NUY-LOWER	H1HOLS-UNSPE	H1ELAN-TUNNE	H4HOEK-MODDE	H4KEIS-MCGRE	H6DUTO-WEIR1	H7TRAD-BARRY	H7BUFF-SUURB	H7BUFF-ABNR2	H3KING-MONTA	G4PALM-NUWEB
LATITUDE	-33.53180	-33.57400	-33.71315	-33.75174	-33.73333	-33.85833	-33.93333	-33.94167	-33.92812	-34.41700	-34.76840	-33.793	-34.579
LONGITUDE	19.53950	19.77900	19.49520	19.3294	19.115	19.4833	19.845	19.17830	2.7969	2.65833	2.52912	2.1373	19.434
WMA	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede
QUAT	H2G	H4B	H4C	H1K	H1J	H4E	H4K	H6B	H7C	H7D	H7F	H3B	G4C
MAJOR RIVE	Breede	Breede	Breede	Breede	Molenaars	Breede	Breede	Riviersonderend	Buffelsjags	Breede	Breede	Breede	Palmiet
TRIBUTARY	Hex	Nuy	Nuy	Holsloot	Elandpoort	Hoeks	Keisers	Du Toits	Tradouw	Buffels jags	Buffels jags	Kingna	
ECOREGION	23.2	23.2	23.4	23.3	23.3	23.2	19.6	19.4	19.8	22.2	22.2	19.7	19.4
GEOMORPH_Z	E	D	E	D	C	E	D	D	E	E	E	E	B
PERENNIAL													
ALTITUDE	364	65	25	29	47	248	199	365	352	132	72	22	426
FISH													
ABRE													
ALAB											3		
AMAR											3		
AMOS	3	3	3	3	3	3				1	3		3
BAND	1	3	3	3	3	3	1	3		3	3	3	
CCAR	3										3		
CGAR											3		
GAES													
GAFF													
GZEB	1	3	3	3	1	1	1	1		1		3	1
LMAC				3	3		3		1	1	1	3	
LRIC											3		
MARG											3		
MCAP											3		
MCEP											1		
MDOL	3			3	1		3		3	3			
MFAL											3		
MPUN													
MSAL	3							3		1	1	3	
OMOS													
OMYK	3	1	1	3	1			3					3
PBUR	1	3	3	3	1	3	1	1	1	3	3	1	
SCAP	1	3	3	3	3	3	1	3		3	3	1	1
STRU													
TSPA							3		1	1	3	3	
TTIN											3		

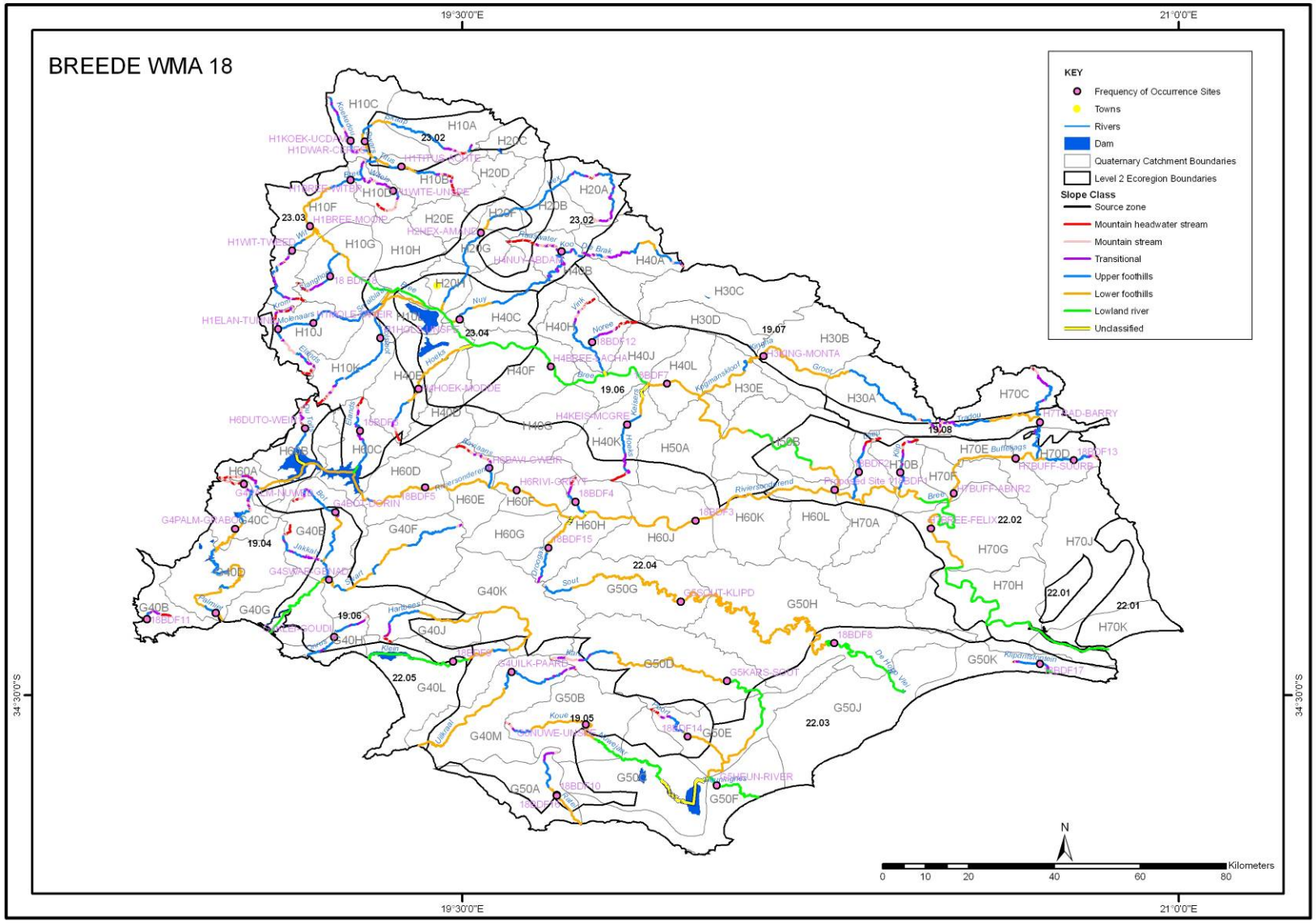
WMA 18 BREEDE CONTINUED

FROC SITE CODE	G4PALM-GRABO	G4PALM-KOGEL	G4BOT-DORIN	G4SWAR-GENAD	G4KLEI-GOUDI	G4UILK-PAARD	G5HEUN-RIVER	G5NUWE-UNSPE	G5KARS-SOUT	G5SOUT-KLIPD	18BDF1	18BDF2	18BDF3	18BDF4
LATITUDE	-34.1517	-34.3279	-34.11663	-34.2584	-34.37838	-34.4514	-34.68861	-34.5611	-34.4718	-34.3378	-34.334	-34.3232	-34.13471	-34.95400
LONGITUDE	19.2468	18.9838	19.235	19.2218	19.23261	19.64	2.33610	19.7591	2.5452	19.95745	2.41684	2.33121	19.98827	19.73695
WMA	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede
QUAT	G4C	G4D	G4E	G4F	G4H	G4M	G5F	G5B	G5D	G5G	H7B	H7A	H6J	H6H
MAJOR RIVE	Palmiet	Palmiet	Bot	Bot	Onrus	Uilkraal	Heuning nes	Nuwejaars	Kars	Sout	Breede	Breede	Breede	Riviersond erend
TRIBUTARY				Swart							Klip	Leeu	Riviersond erend	Soetmelks
ECOREGION	19.4	19.4	19.6	19.6	19.6	19.5	22.3	19.5	22.4	22.4	22.2	22.2	22.4	22.4
GEOMORPH_Z	E	D	C	E	D	D	F	E	F	E	D	D	E	D
PERENNIAL														
ALTITUDE	275	35	169	26	46	112	4	46	44	182	11	132	131	234
FISH														
ABRE														
ALAB				3	3		3	3	3				3	
AMAR		3		3	3		3	3	3				3	
AMOS		3	3	3	3	3	3	3	3		1	3	3	3
BAND											3		3	3
CCAR	3			3			3	3	3					
CGAR														
GAES		3		3	3		3	1	1				3	
GAFF														
GZEB	3	3	3	3	3	3	3	1	3	3	1	1	1	1
LMAC	3	3	3	3				1	1		1		1	1
LRIC														
MARG							3							
MCAP		3		3	3		3		3				3	
MCEP		3		3	3		3		3				3	
MDOL	3	3		3	3		3						1	
MFAL		3		3			3							
MPUN			3	3			3	3	3					
MSAL	3	3			3		3	1					1	1
OMOS				3						3				
OMYK	3				3									
PBUR							3	3	3		1	1	3	1
SCAP	3	3	3	3	3	3	3	3	3	1	1	1	3	1
STRU														
TSPA				3		3								
TTIN													3	

WMA 18 BREEDE CONTINUED

FROC SITE CODE	18BDF5	18BDF6	18BDF7	18BDF8	18BDF9	18BDF1	18BDF11	18BDF12	18BDF13	18BDF14	18BDF15	18BDF16	18BDF17	18 BDF18
LATITUDE	-34.65190	-33.94630	-33.84870	-34.39125	-34.42927	-34.787	-34.347	-33.766	-34.79	-34.5874	-34.1915	-34.714	-34.4341	-33.6223
LONGITUDE	19.42283	19.28674	19.92947	2.27852	19.48119	19.6984	18.846	19.7719	2.786	19.9724	19.689	19.6984	2.71	19.2243
WMA	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede	Breede
QUAT	H6D	H6C	H4L	G4H	G4L	G5A	G4B	H4H	H7D	G5E	H6H	G5A	G5K	H1G
MAJOR RIVE	Breede	Riviersond erend	Breede	Sout	Klein	Ratel	Rooi Els	Vink	Breede	Kars	Riviersond erend	Ratel	Klipdrifs Fonteinspr	Breede
TRIBUTARY	Riviersond erend	Elands						Noree	Buffeljags	Poort	Droogas			Slanghoek
ECOREGION	22.4	23.3	19.6	22.3	22.5	19.5	19.4	19.6	22.2	19.5	22.4	19.5	22.3	23.3
GEOMORPH_Z	E	D	E	F	F	E	D	D	D	E	E	E	D	D
PERENNIAL														
ALTITUDE	251	485	149	22	17	122	1	41	497	37	252	41	198	371
FISH														
ABRE							1							
ALAB	3		3				1							3
AMAR	3		3				1							3
AMOS	3	3	3		3	3	1		1		3			3
BAND	3		1					3	3		3			3
CCAR			1											
CGAR			3											
GAES	3		1				1							
GAFF														
GZEB	1	1			1	3	1	1	3	1	1	3	3	3
LMAC	1		3		3			3			1			3
LRIC			3				1			3		3		
MARG														
MCAP	3		3		3		1			3		3	3	
MCEP	3		3		3		1			3		3	3	
MDOL	1		1		1									1
MFAL			3									3	3	
MPUN					3					1				
MSAL	1	3						3			1			
OMOS				1										
OMYK		1												1
PBUR	3	1	3					1	1	1	1	3		3
SCAP	3	1	3	1	3	3	1	1	1	1	1	3		3
STRU														
TSPA		1	3					3	1					
TTIN	3		3											

MAP OF WMA 18 (BREEDE) FISH SITES



WMA 19 BERG

RHP_SITE_C	G1BERG-BRBM1	G1BERG-BRMB2	G1BERG-BEJFB	G1BERG-DALJO	G1BERG-BRBM4	G1BERG-BRBM5	G1BERG-BRBM6	G1WEMM-WEMME	G1DWAR-KYLEM	G1KROM-GROEN	G1KLEI-TWEEJ	G1WATE-WATER	G1KBER-R44BR	G1TWEN-AWEIR	G1TWEN-HALMA	G1MAAT-MATJI
LATITUDE	-33.95865	-33.89350	-33.81230	-33.63056	-33.42000	-33.12500	-33.01517	-33.85417	-33.91241	-33.62750	-33.25000	-33.35410	-33.21907	-33.13502	-33.15556	-33.04722
LONGITUDE	19.06933	19.05017	18.95872	18.97500	18.96950	18.85583	18.785	19.03889	18.94391	19.02535	19.10500	19.10950	18.97433	19.06253	18.97778	18.83194
WMA	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg
QUAT	G10A	G10A	G10C	G10D	G10F	G10J	G10K	G10B	G10C	G10D	G10E	G10E	G10F	G10G	G10J	G10J
MAJOR RIVERS	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg
TRIBUTARY								Wemmers hoek	Dwars	Krom	Klein Berg	Waterval	Klein Berg	Twenty-four	Twenty-four	Maatjies
ECOREGION	19.04	24.06	24.06	24.05	24.05	24.04	24.04	24.06	19.04	24.06	23.03	23.03	24.05	23.03	24.04	24.04
GEOMORPH ZONE	D	D	E	F	F	F	F	D	D	D	D	C	E	C	D	E
ALTITUDE (m)	274	194	134	94	74	34	34	203	278	138	172	222	52	158	68	37
FISH																
ABRE																
AMAR																
AMOS																
BAND	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
CCAR		3	1	1	1	3	3				1		3			
CGAR		3	3	3	3	3	3						3		3	
GAFF			3	3	3								3		3	3
GAES						3	3									
GAFF						3	3			3						
GZEB	1	3	3	3	3	1	1	1	1	3	1	1	3	3	1	3
LMAC			1	1	1	3	3	3			1				1	
LRIC																
MCAP						3	3									
MCEP						1	1									
MDOL		3	1	1	1	1	1	3			1		3	1	1	
MFAL																
MPUN		3														
MSAL		3	1	1	1	1	1				1		3			
OMOS						3	3									3
OMYK	1	3	3	3	3	3	3	1	3	3	3	3	3	1		
PBUG	1	3	3	3	3	3	3	1	3	1	3	3	3	3	3	3
PBUR																
SCAP	1	1	3	3	3	3	3	1	3	3	1	1	3	3	3	3
STRU		3														
TSPA			3	3	3	3	3	3		3			3		1	3

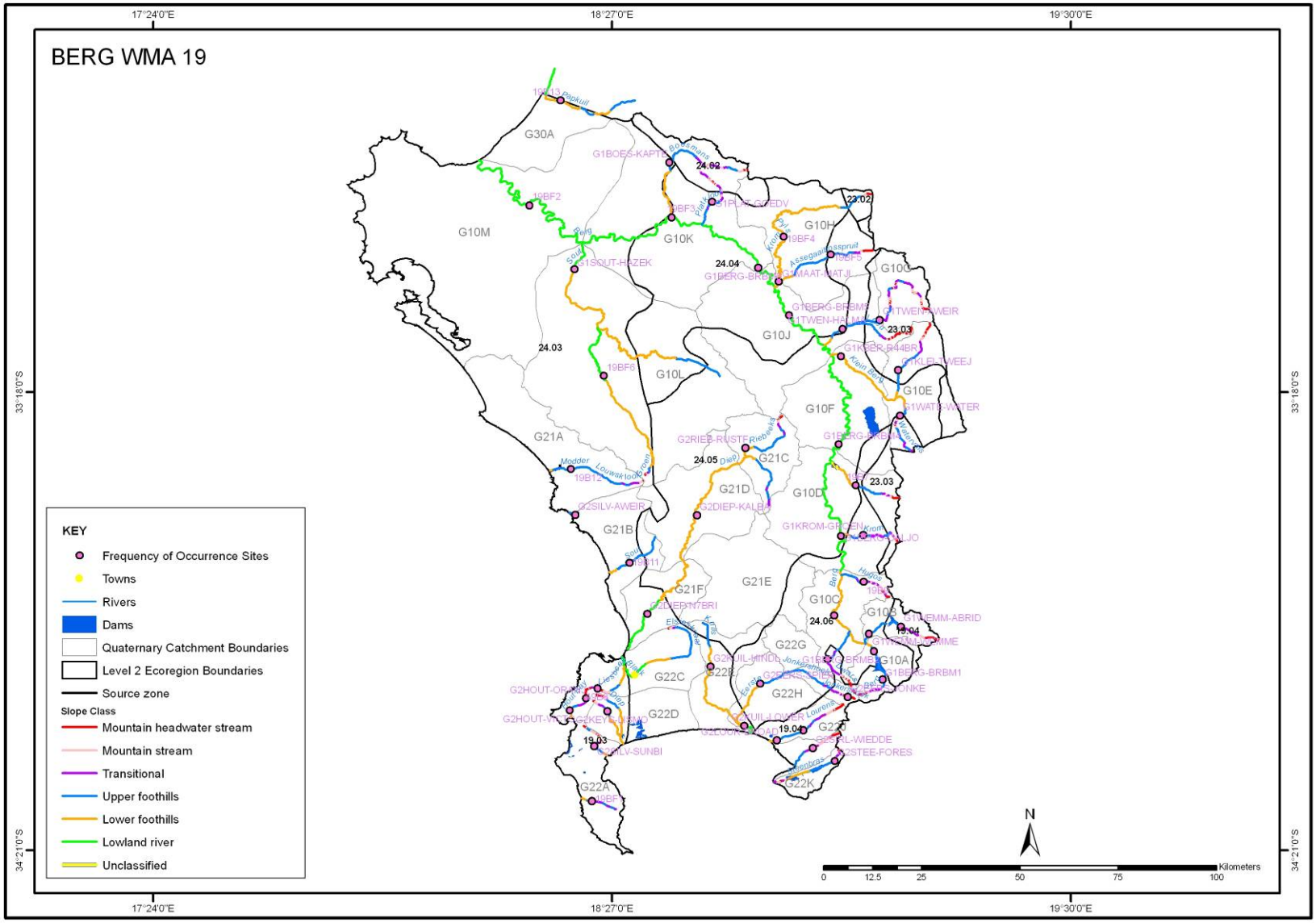
WMA 19 BERG CONTINUED

RHP_SITE_C	G1PLAT-GOEDV	G1SOUT-HAZEK	G1BOES-KAPTE	G1WEMM-ABRID	G2SILV-AWEIR	G2RIEB-RUSTF	G2DIEP-KALBA	G2DIEP-N7BRI	G2HOUT-ORANJ	G2HOUT-VICTO	G2SILV-SUNBI	G2KEYS-LISMO	G2KUIL-HINDL	G2KUIL-LOWER	G2EERS-JONKE	G2EERS-SPIER
LATITUDE	-32.86467	-33.01944	-32.7743	-33.83765	-33.58187	-33.4284	-33.58240	-33.80890	-34.0025	-34.0293	-34.11147	-34.03127	-33.92935	-34.06474	-33.9987	-33.96886
LONGITUDE	18.67928	18.36389	18.58187	19.111	18.36563	18.7554	18.64500	18.53130	18.39083	18.35383	18.40952	18.43994	18.6755	18.75306	18.9897	18.78934
WMA	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg
QUAT	G10K	G10L	G10K	G10B	G21B	G21C	G21D	G21F	G22B	G22B	G22A	G22D	G22E	G22H	G22F	G22H
MAJOR RIVERS	Berg	Berg	Berg	Wemmers hoek	Silwer stroom	Diep	Diep	Diep	Hout Bay	Hout Bay	Silvermine	Keysers	Kuils	Kuils	Eerste	Eerste
TRIBUTARY	Platkloof	Sout	Boes mans	Olifants		Riebeeks										
ECOREGION	24.04	24.03	24.03	19.04	24.03	24.05	24.05	24.03	19.03	19.03	19.03	19.03	24.03	24.03	19.04	24.06
GEOMORPH ZONE	D	F	D	D	D	E	E	F	B	E	D	D	E	E	B	D
ALTITUDE (m)	103	6	83	303	1235	141	67	9	129	9	47	37	44	44	478	55
FISH																
ABRE																
AMAR											1	3	3	3	3	3
AMOS											1	3	3	3	3	3
BAND	3		3	3												
CCAR						3	3	3					3	3	3	3
CGAR													3	3	3	3
GAFF		3				3							3			3
GAES							3	3						3		
GAFF							1	1				1		3		
GZEB	1	1	1	1	3	1	1	1	1	1	1	1	1	3	1	1
LMAC													3			
LRIC					3		3	3		3				3		
MCAP							3	3		3	1			3		
MCEP					3		3	3		3				3		
MDOL																
MFAL											1					
MPUN																
MSAL															3	3
OMOS		1					3	3		3		1				3
OMYK				1										3	3	3
PBUG	1		1	1									3	3	1	1
PBUR																3
SCAP	1		1	1		1	1	1	3	3	1	1	3	3	1	1
STRU																
TSPA			1			1	1	1		3	1	3	1	3		3

WMA 19 BERG CONTINUED

RHP_SITE_C	G2LOUR-VERGE	G2LOUR-BROAD	G2SIRL-WIEDDE	STEE-FOR	19BF1	19BF2	19BF3	19BF4	19BF5	19BF6	19B7	19B8	19B9	19B11	19B12	19B13
LATITUDE	-34.07503	-34.09807	-34.11611	-34.14557	-34.23723	-32.8723	-32.90007	-32.94454	-32.98571	-33.26351	-33.51421	-33.97910	-33.7347	-33.6918	-33.4767	-32.6325
LONGITUDE	18.88901	18.82722	18.90972	18.96007	18.40458	18.26137	18.58704	18.84350	18.95084	18.43136	19.00821	18.41760	19.0258	18.4901	18.356	18.3326
WMA	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg	Berg
QUAT	G22J	G22J	G22K	G40A	G22A	G10M	G10K	G10H	G10H	G10L	G10D	G22B	G10C	G21B	G21A	G30A
MAJOR RIVERS	Lourens	Lourens	Sir Lowry's Pass	Steenbras	Klaas Jagers	Berg	Berg	Berg	Berg	Berg	Berg	Liesbeek	Hugos	Sout	Modder	Papkuil
TRIBUTARY								Krom	Assegaai bosspruit	Groen	Kompan jies					
ECOREGION	19.04	19.04	19.04	19.04	19.03	24.03	24.04	24.04	24.05	24.03	24.05	19.03	24.06	24.03	24.03	24.03
GEOMORPH ZONE	D	E	C	C	D	F	F	E	D	F	E	A	C	D	D	E
ALTITUDE (m)	110	10	84	429	27	14	14	83	123	47	87	36	196	57	63	43
FISH																
ABRE		3														
AMAR	3	3	3	3												
AMOS	3	3	3	3												
BAND																
CCAR		3				1	1									
CGAR						1	1									
GAFF	3						1							1		
GAES		1														
GAFF		3				1										
GZEB	1	1	1	1	1	1	1	3	3	1	3	3	1	1	3	1
LMAC											1					
LRIC		3			3	1	1							1	3	
MCAP	3	3				1	1									
MCEP	3	3			3	1	1							1	3	
MDOL						1	1									
MFAL		3														
MPUN																
MSAL						1	1									
OMOS						1	1	1								
OMYK	3	3		3				1				3				
PBUG													1			
PBUR																
SCAP	3	3	3		3						1	3	1		3	1
STRU																
TSPA	3	3				1	1	3			1			1	3	

MAP OF WMA 19 (BERG) FISH SITES



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