# INVENTORY OF NATIONAL RIVER HEALTH PROGRAMME MONITORING SITES

## **VOLUME 2 – MAPS OF NATIONAL RHP MONITORING SITES - PER WATER MANAGEMENT AREA**

### November 2005

# H.F. Dallas The Freshwater Consulting Group / Freshwater Research Unit University of Cape Town



### Prepared for:

Environmentek (CSIR) and Resource Quality Services,

Department of Water Affairs and Forestry



## **Table of Contents**

1.	Introduction	1
List of Maps		
Map M1	WMA 01 Limpopo	2
Map M2	WMA 02 Luvuvhu and Letaba	
Map M3	WMA 03 Crocodile (West) and Marico	
Map M4	WMA 04 Olifants	
Map M5	WMA 05 Inkomati	
Map M6	WMA 06 Usutu to Mhlatuze	7
Map M7	WMA 07 Thukela	8
Map M8	WMA 08 Upper Vaal	9
Map M9	WMA 09 Middle Vaal	
Map M10	WMA 10 Lower Vaal	11
Map M11	WMA 11 Mvoti to Umzimkulu	12
Map M12	WMA 12 Mzimvubu to Keiskamma	13
Map M13	WMA 13 Upper Orange	14
Map M14	WMA 14 Lower Orange	15
Map M15	WMA 15 Fish to Tsitsikamma	16
Map M16	WMA 16 Gouritz	17
Map M17	WMA 17 Olifants / Doring	18
Map M18	WMA 18 Breede	19
Map M19	WMA 19 Berg	20

#### 1. INTRODUCTION

This report comprises 2 volumes, namely:

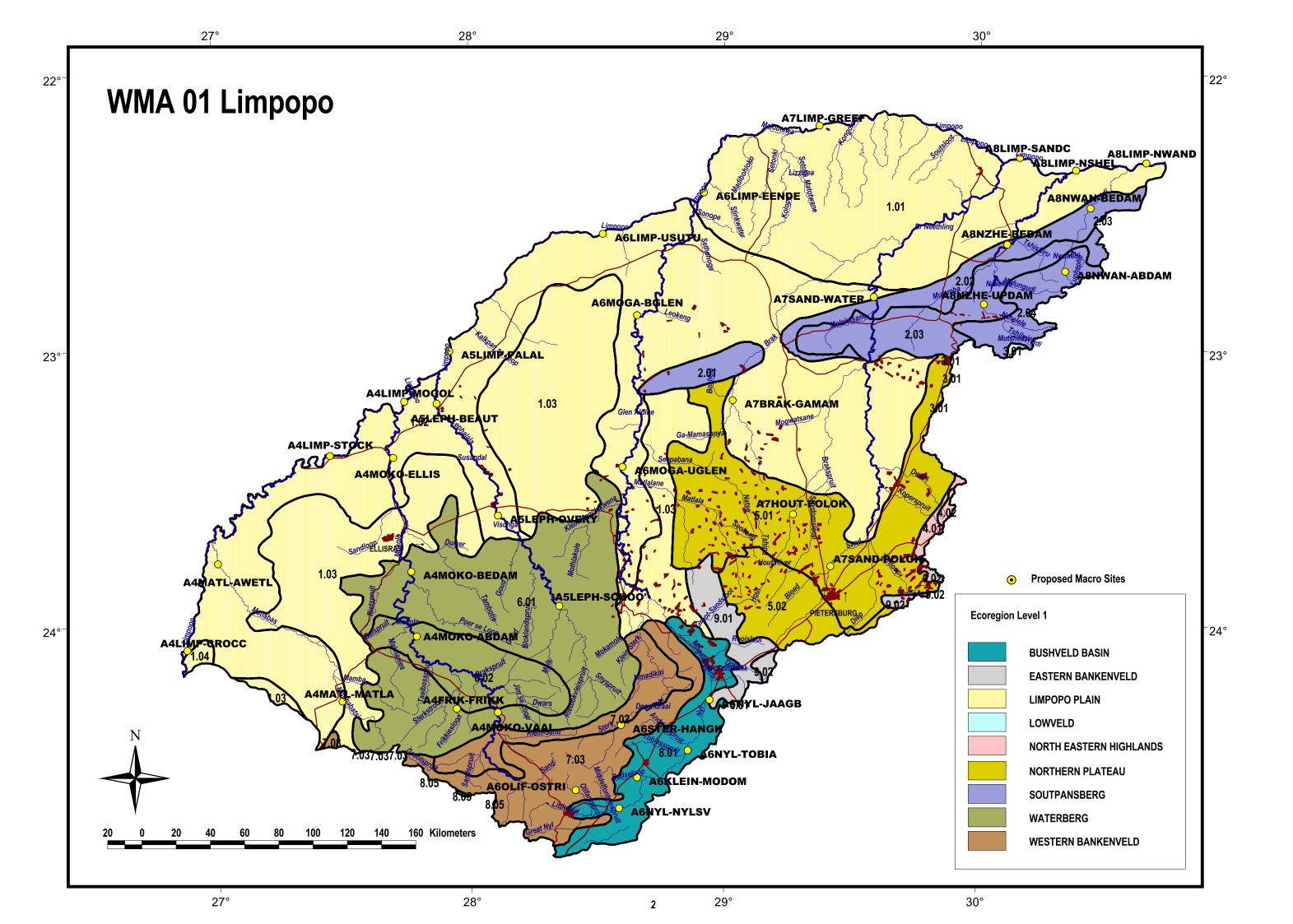
- Volume 1: Introduction, selection of RHP site, results presented as tables for each Water Management Area (WMA), conclusions and references (A4 format), and
- Volume 2: Maps of national RHP sites per Water Management Area (A3 format).

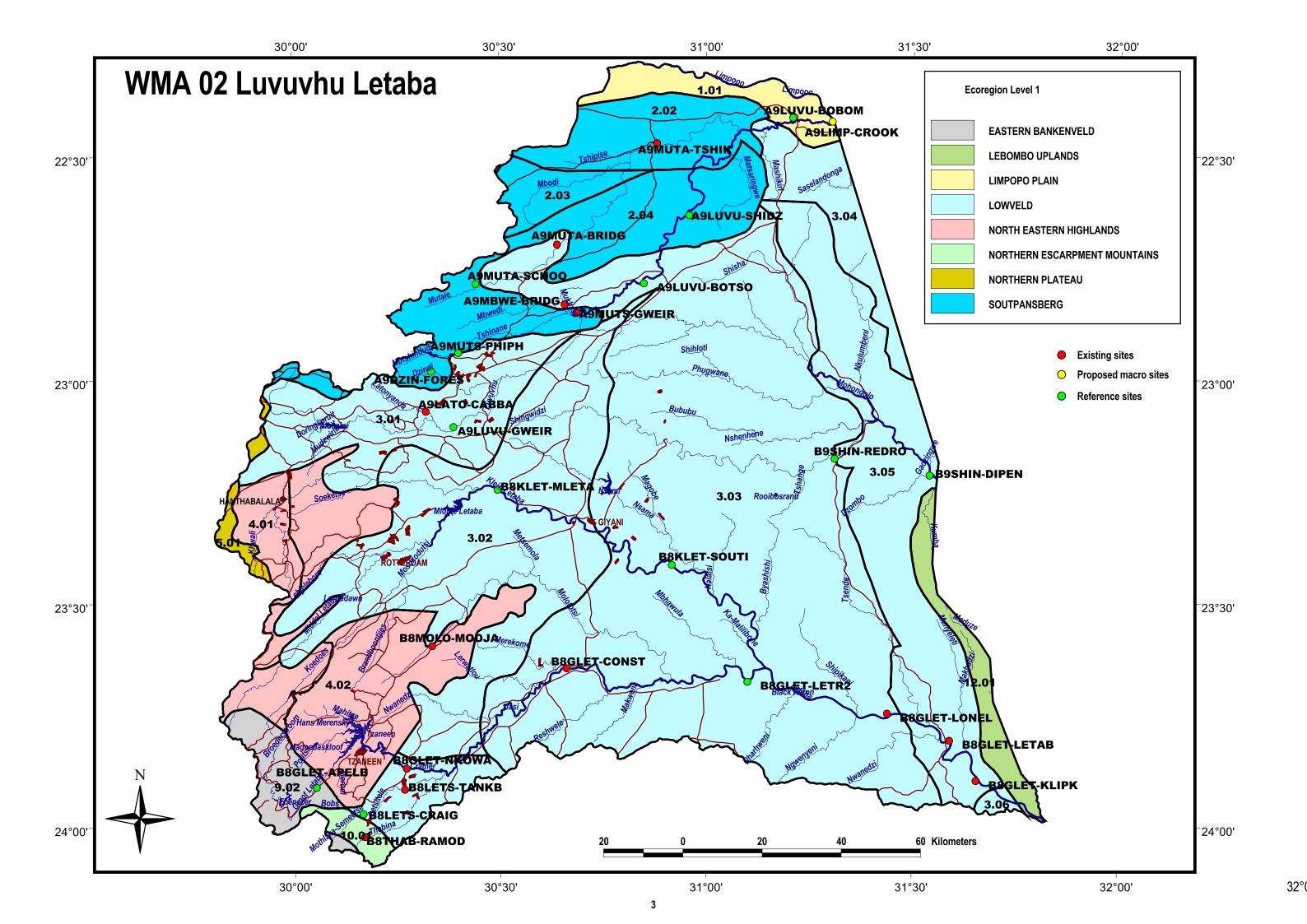
Data from the regional workshops was consolidated into the standardised spreadsheets and maps showing sites were generated per Water Management Area. The report summarizes the process followed in the selection of national River Health Programme (RHP) sites.

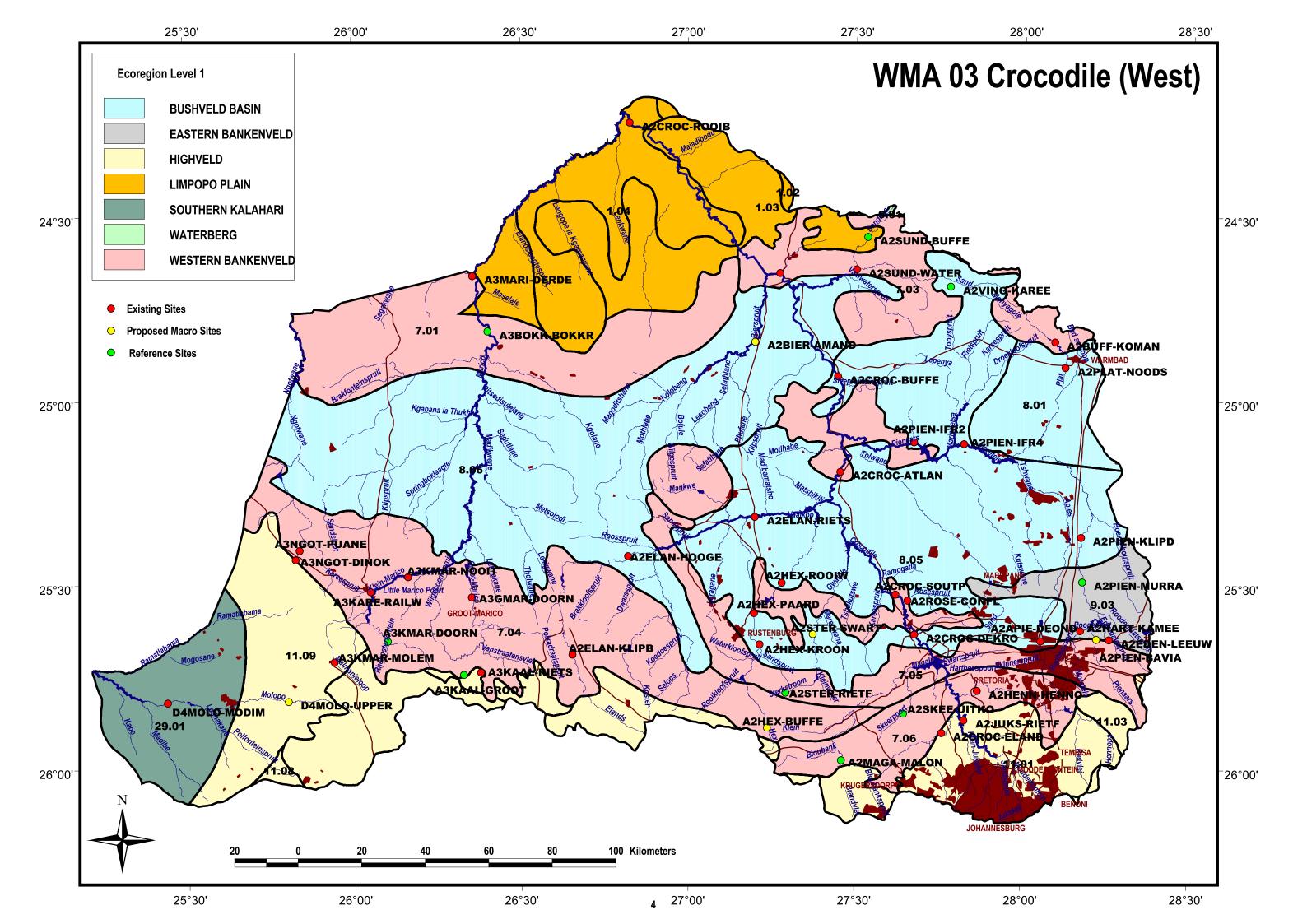
In this volume maps have been produced per WMA. Sites are presented within the framework of ecoregions (levels I and II). Rivers, dams, towns and major roads are indicated on each map.

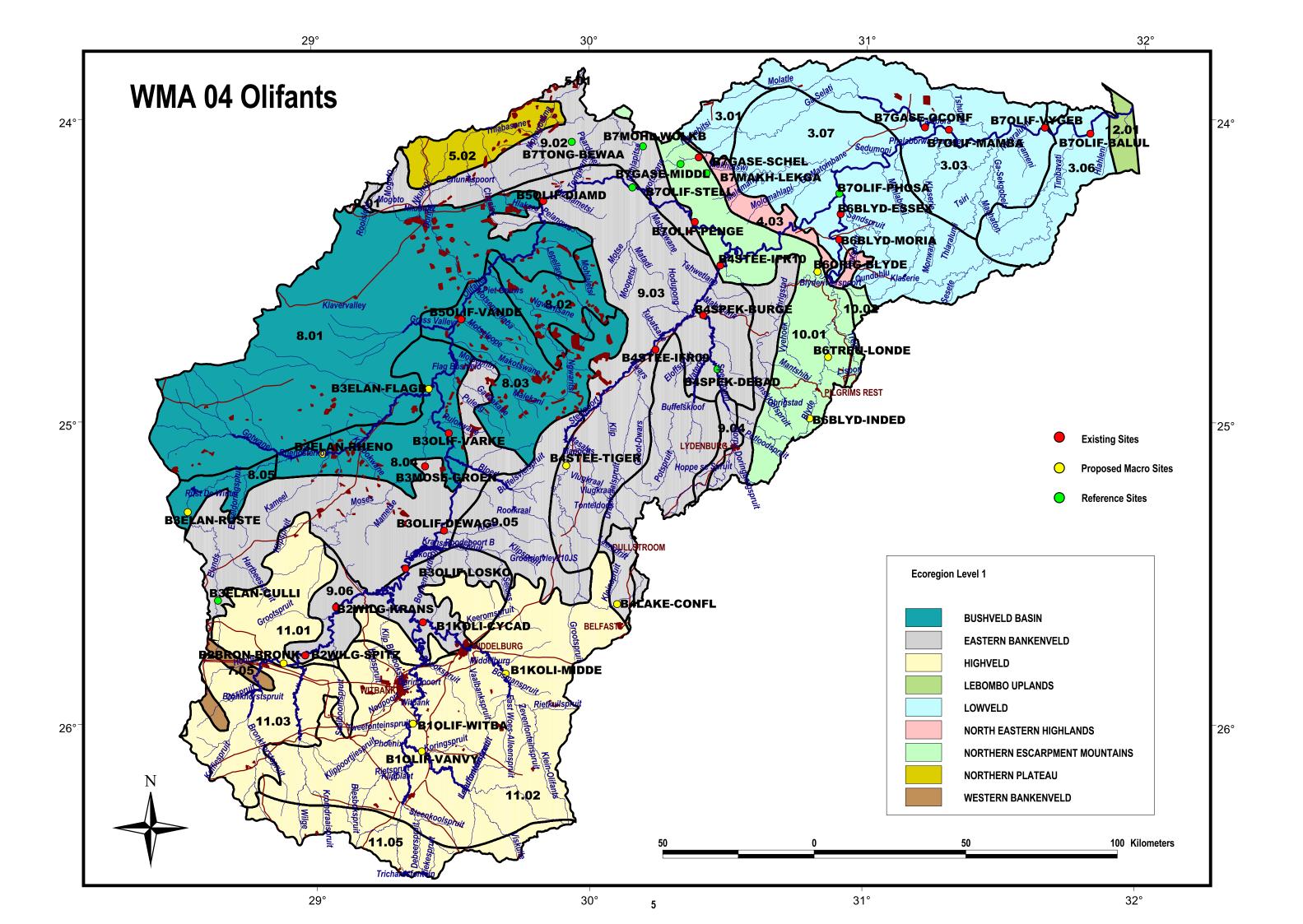
Three types of sites, identified at the workshops, are indicated on the maps as follows:

- Existing sites (mostly monitoring) these sites existed prior to the workshops, mostly as provincial or local monitoring sites. Supporting attribute data for many of these sites have been provided by regional experts, although in some instances data are missing.
- Proposed macro sites macro site locations were identified at the river reach scale when no sites existed. Supporting attribute data for these sites was generally not available and specific site locations for these sites will be determined during ground-truthing and site validation.
- Reference sites these are existing sites that represent the "least impacted" condition and which may be used to generate future reference conditions for specific ecoregions, longitudinal zones and/or river types. The process by which reference conditions are derived will vary with biotic component, i.e. invertebrates, fish, riparian vegetation. It is likely that additional reference sites will need to be identified within ecoregions which are not represented or under represented.

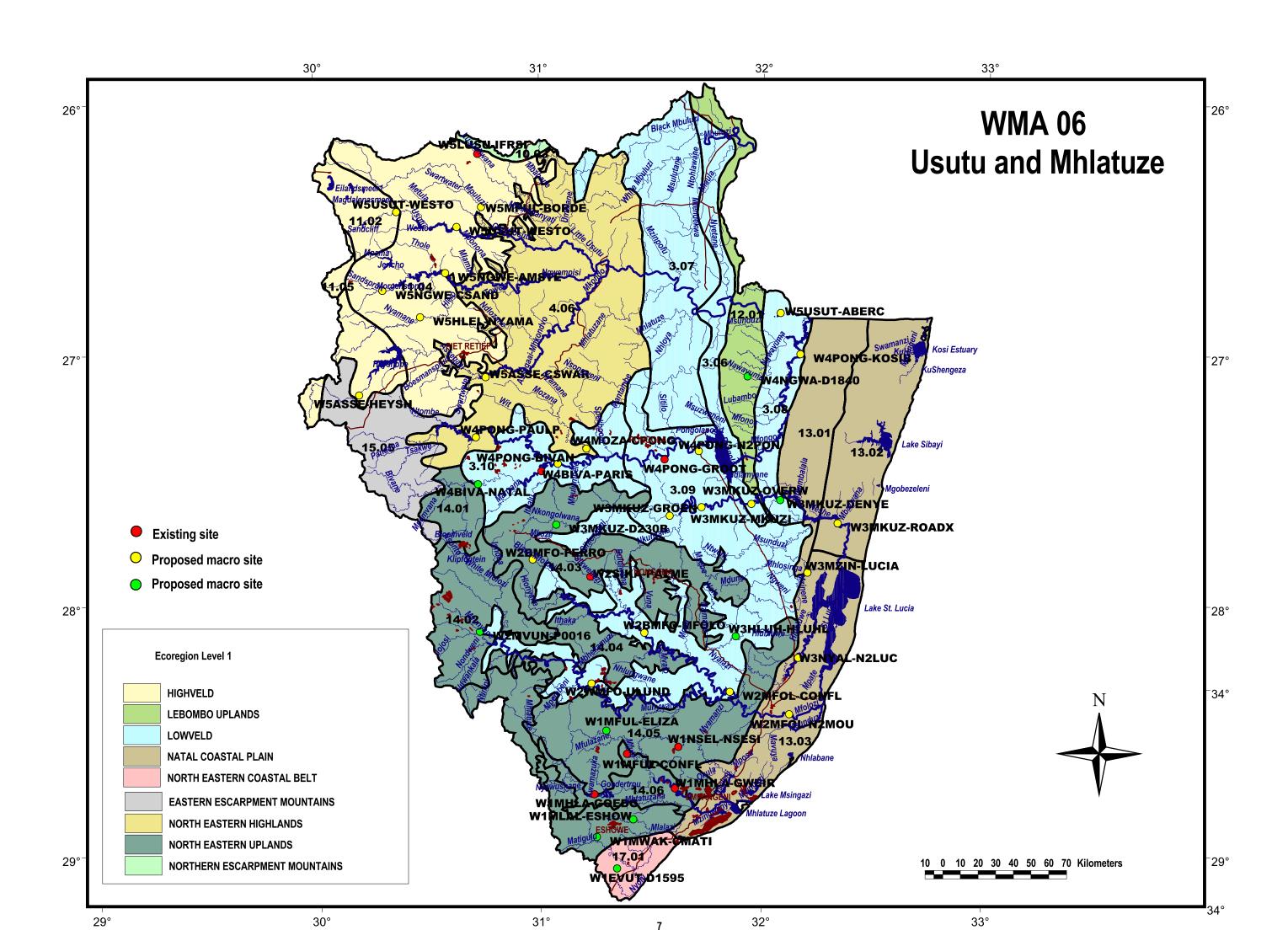


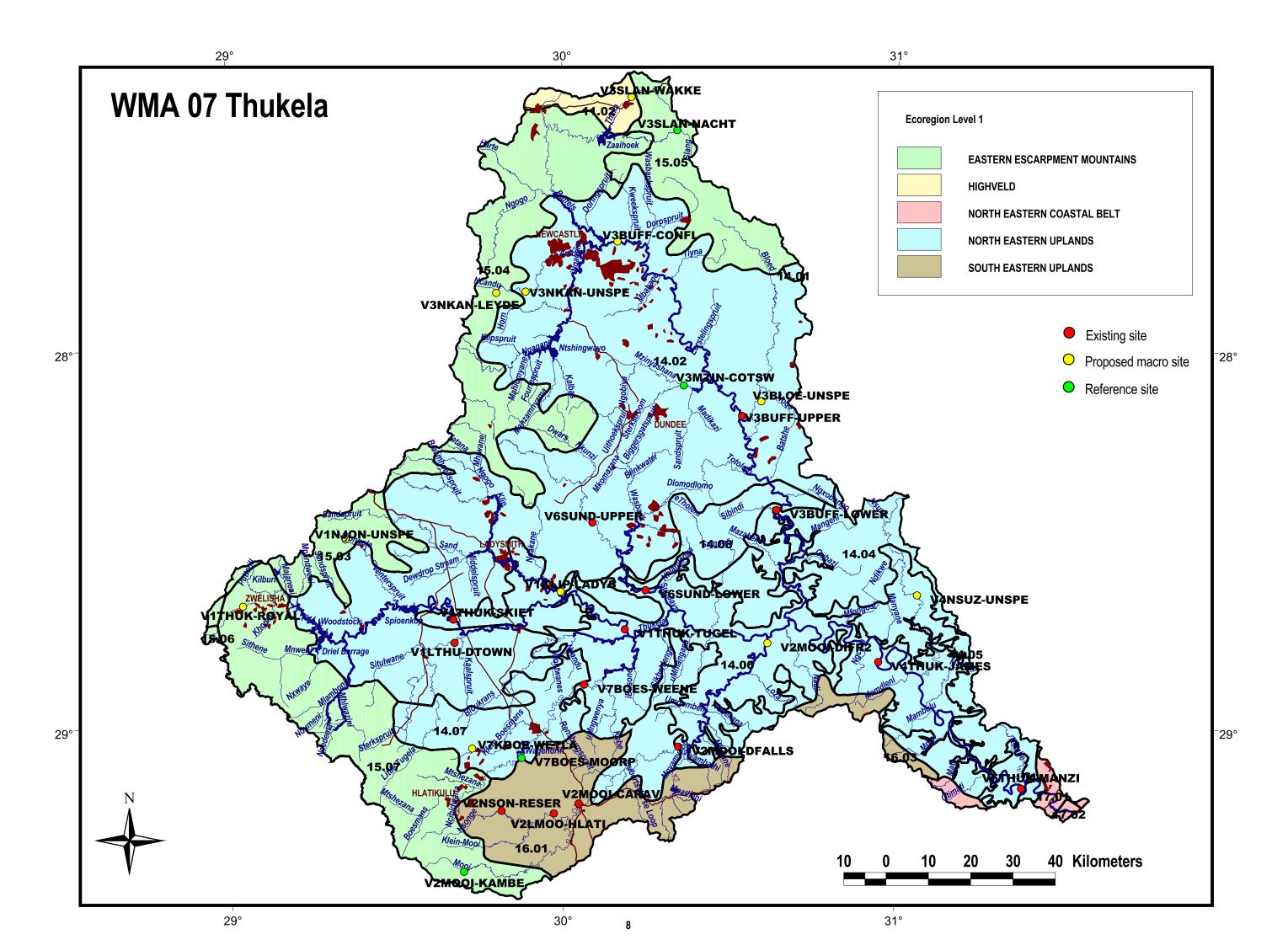


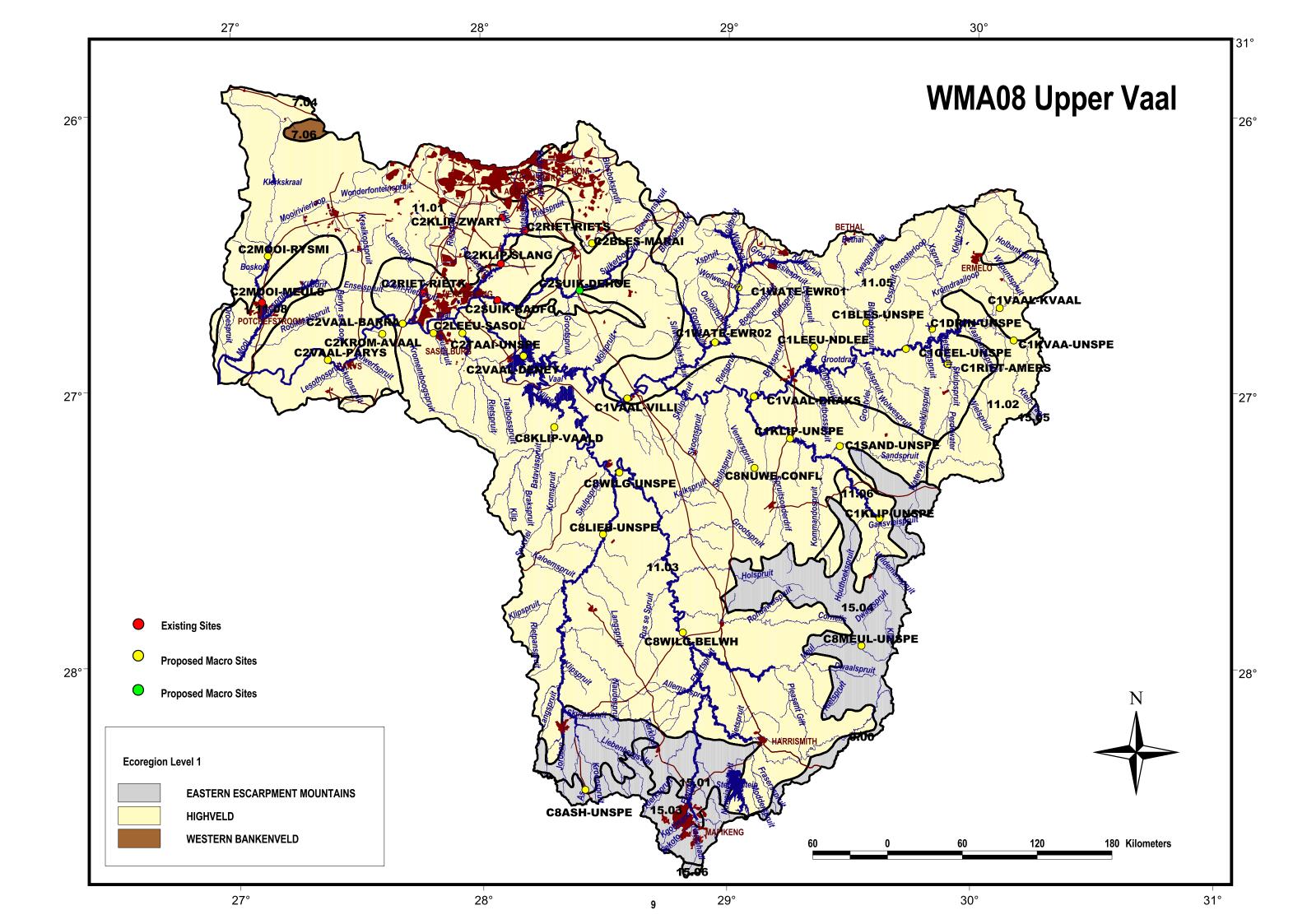


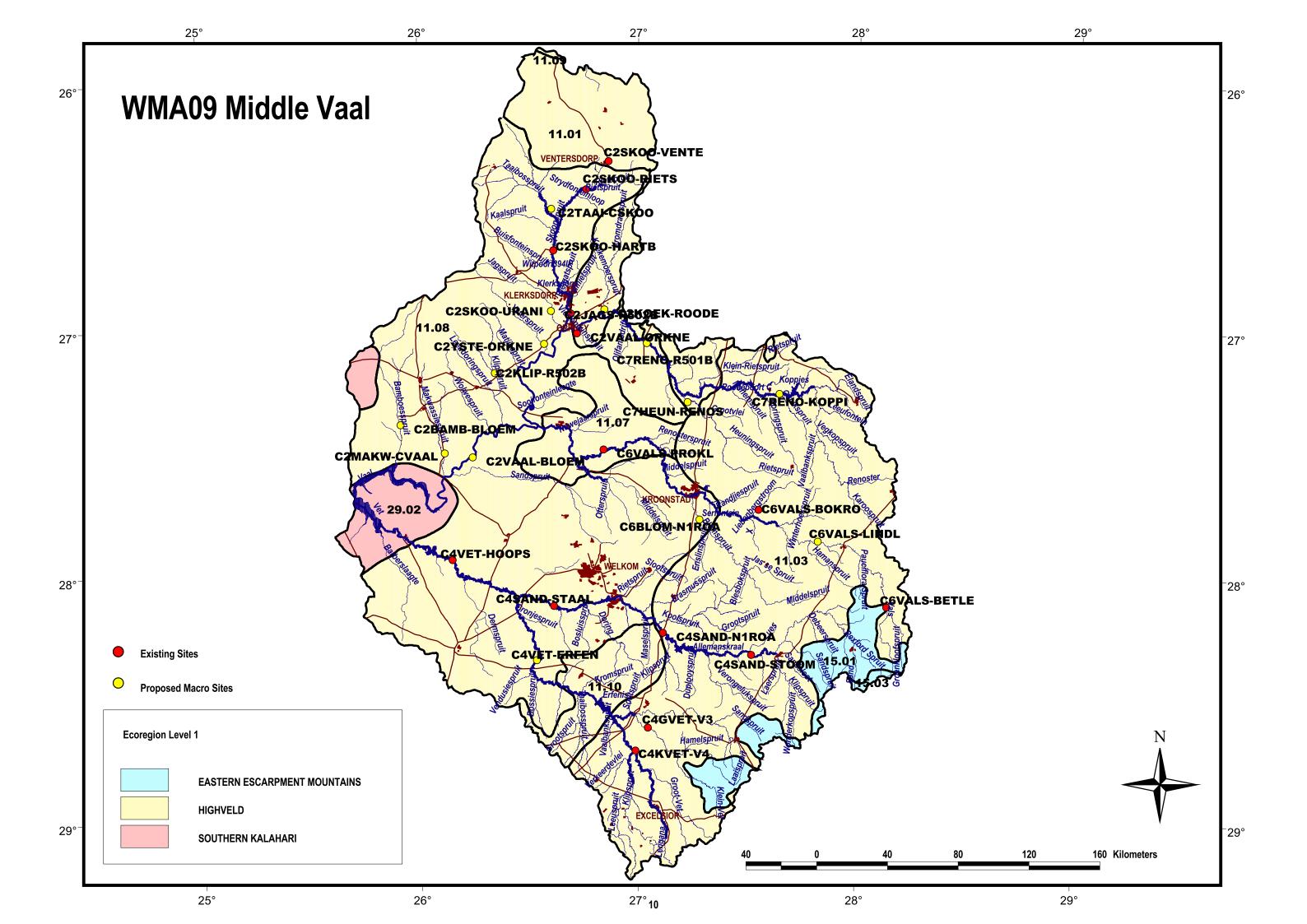


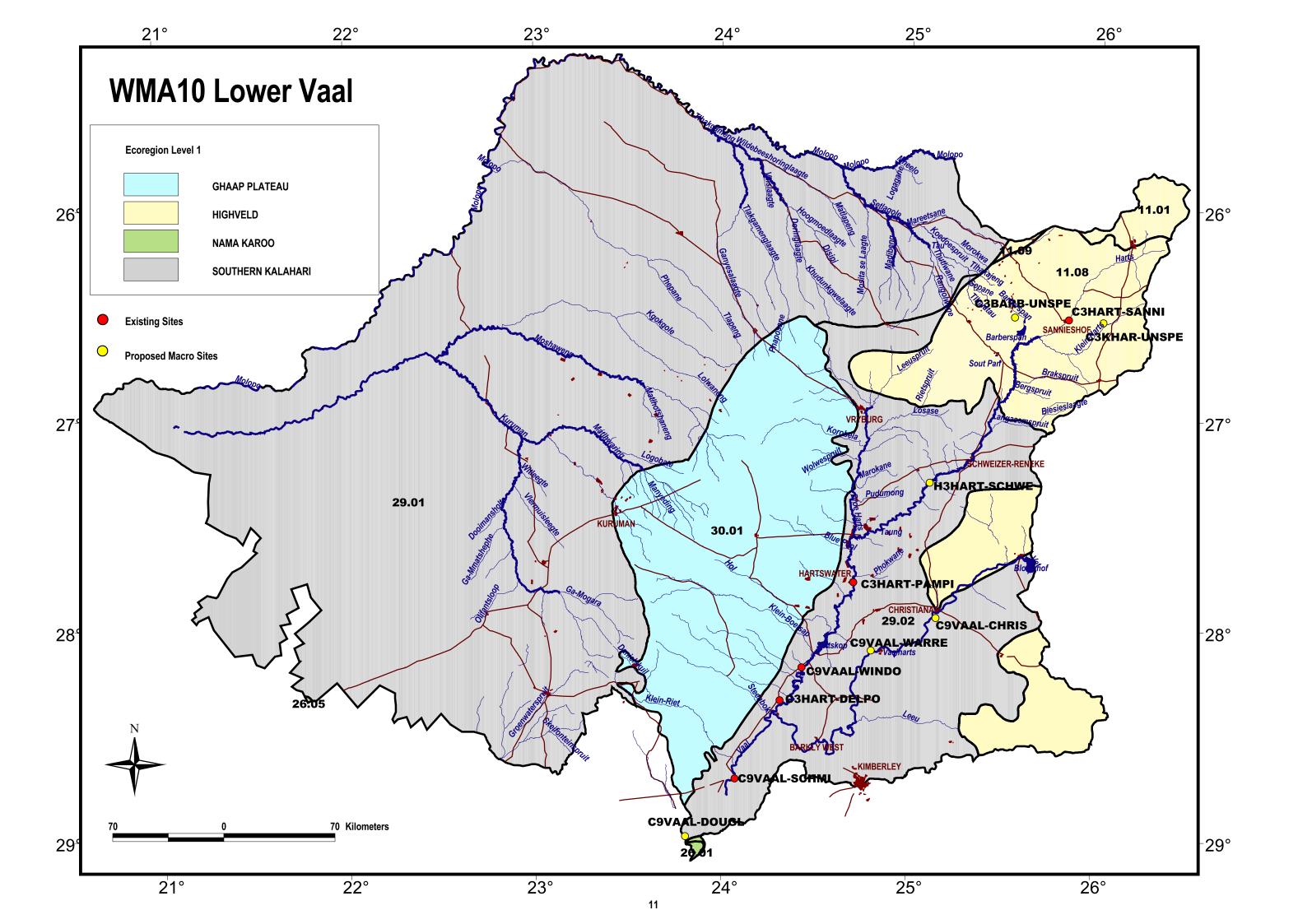
30° 31° 32° WMA 05 Inkomati **Ecoregion Level 1 EASTERN BANKENVELD** HIGHVELD X3MQ L-FORES **LEBOMBO UPLANDS** 3.06 MariX3SAND-ALEAN Mutumuy X3MUTL-THULA **LOWVELD** X3SAND-LONDO NORTH EASTERN HIGHLANDS NORTHERN ESCARPMENT MOUNTAINS 12.01 X3SABI-SKUKU \$ABI EOP SMACM-BRAND X3SAND-SKUKU 3MARI-SANDF 25° **Existing sites** <sup>-</sup>25° X39ABI-NWATI X3SABI-BRAND **Proposed macro sites** 3.07 X3SABI-SPOOR Reference sites 10.01 х2ноцт-стосс XZCROC NKONG X3NELS-R40RO X2CROC-DKWEN 9.02 2CROC-DNELS X2NSIK-CONFL X1HOMA-CROCC 0.02 XZ LAN-ROODE X2NKAM-UIFROT X1LOMA-DORIE KOMA-TONGA ZELAN-DOORNE XIGLAD-UNSPE X2KOMA-UV GE K1KOMA-DVYGE SWAZILAND XISEEK-SEEKO X1TEES-CONFL 26° <sup>-</sup>26° 10.03 TKOMA-VAALW X1KOMA/SONG X1BO S-BOESM 80 Kilometers 20 40 60 31° 32°

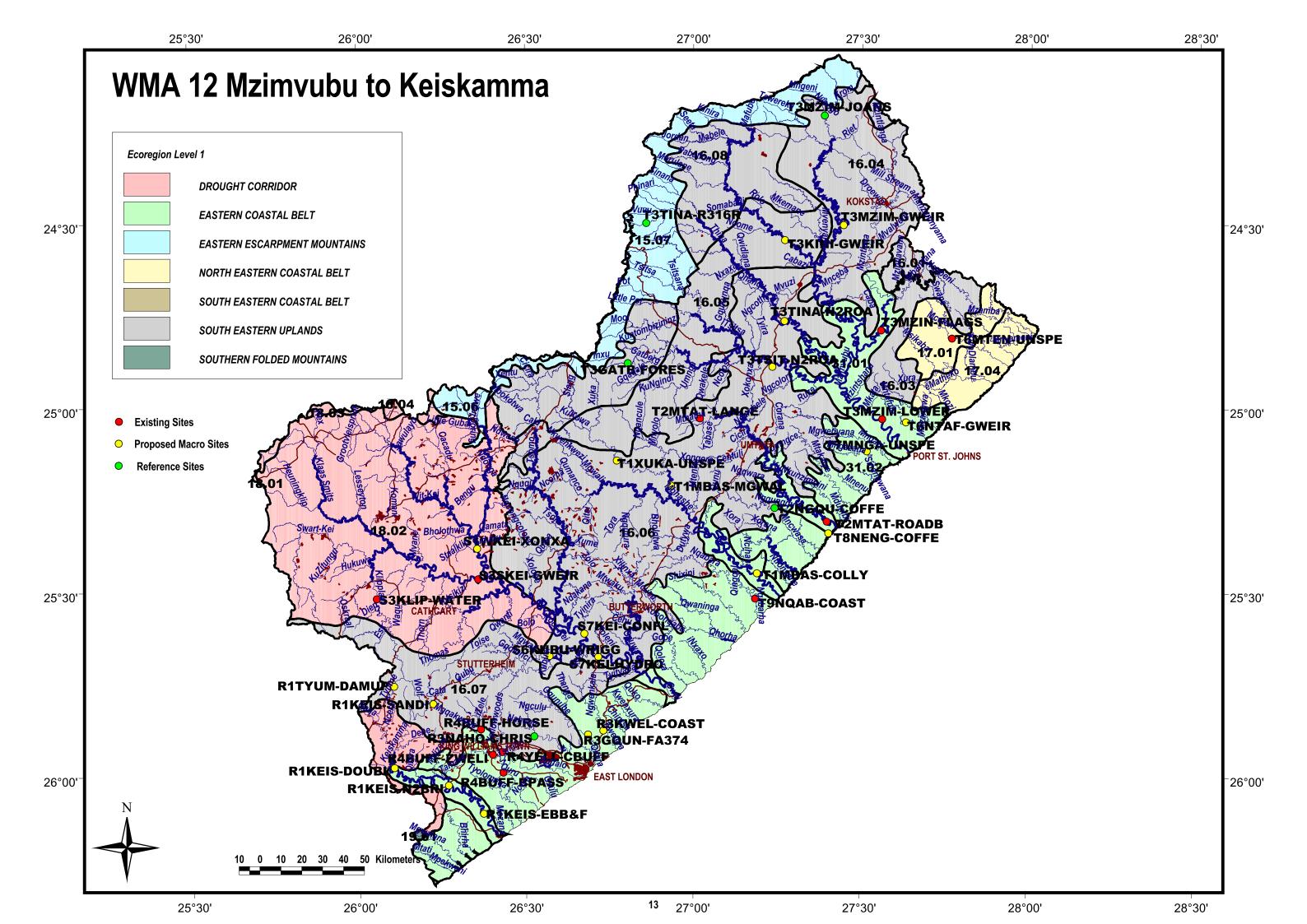


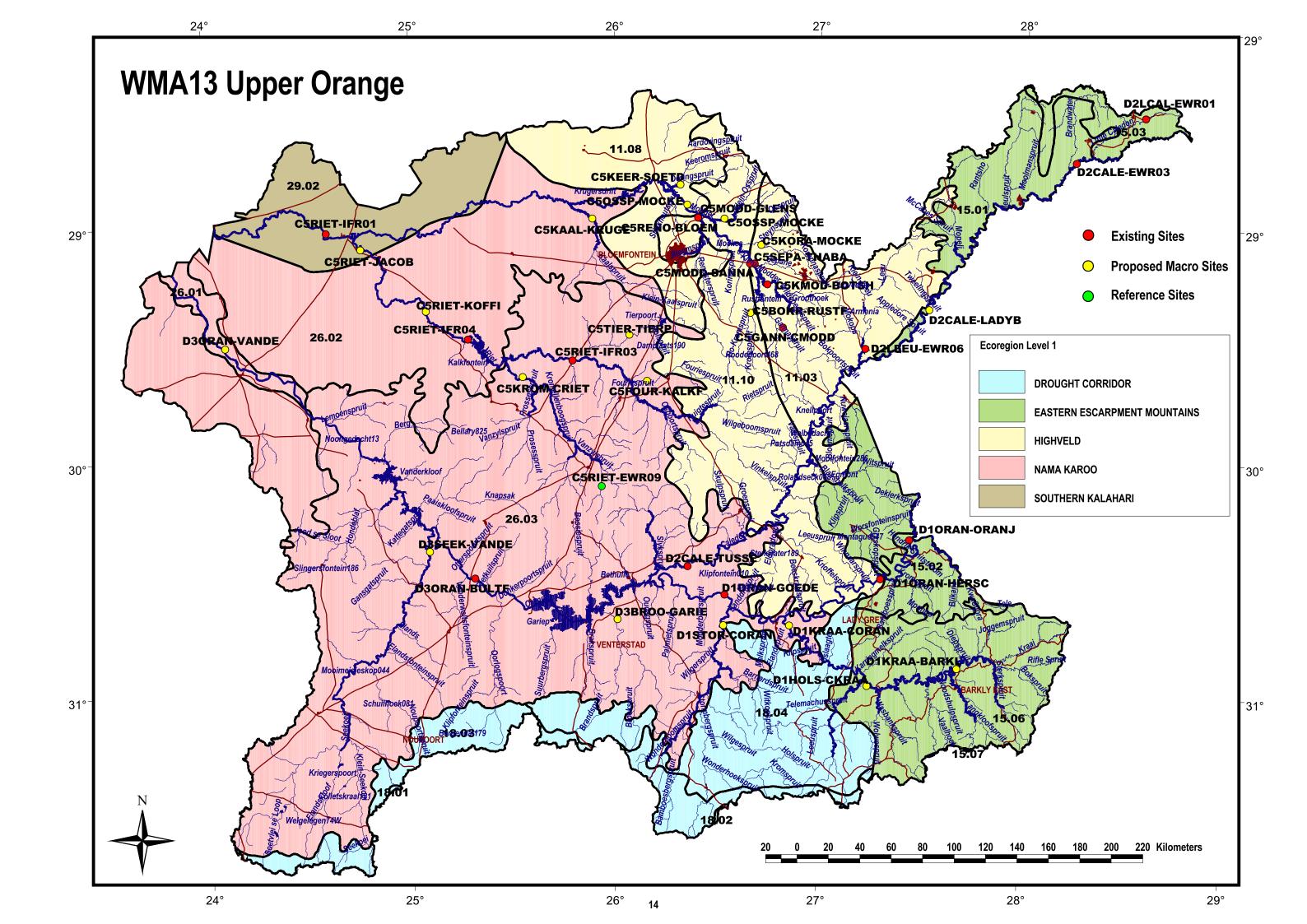


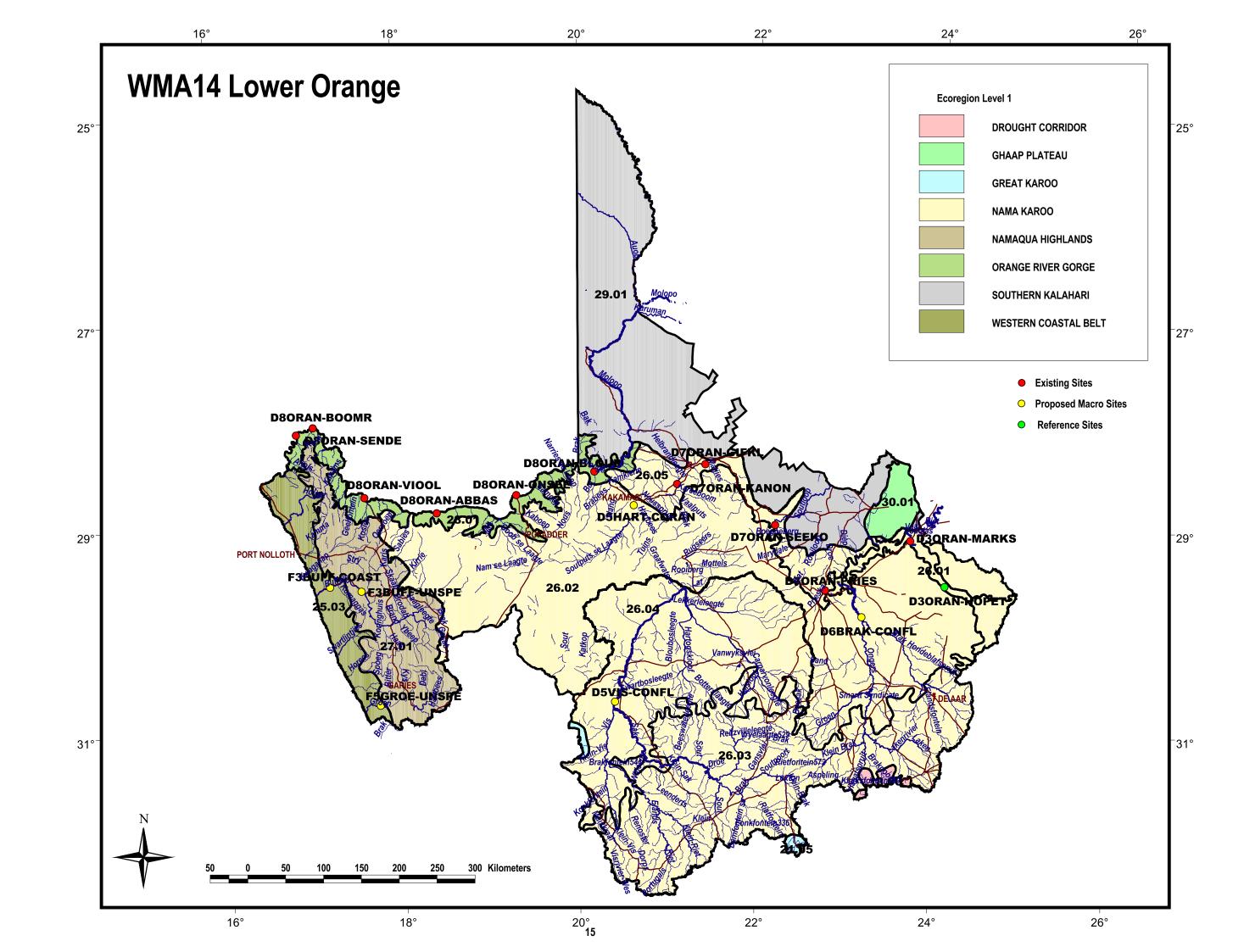


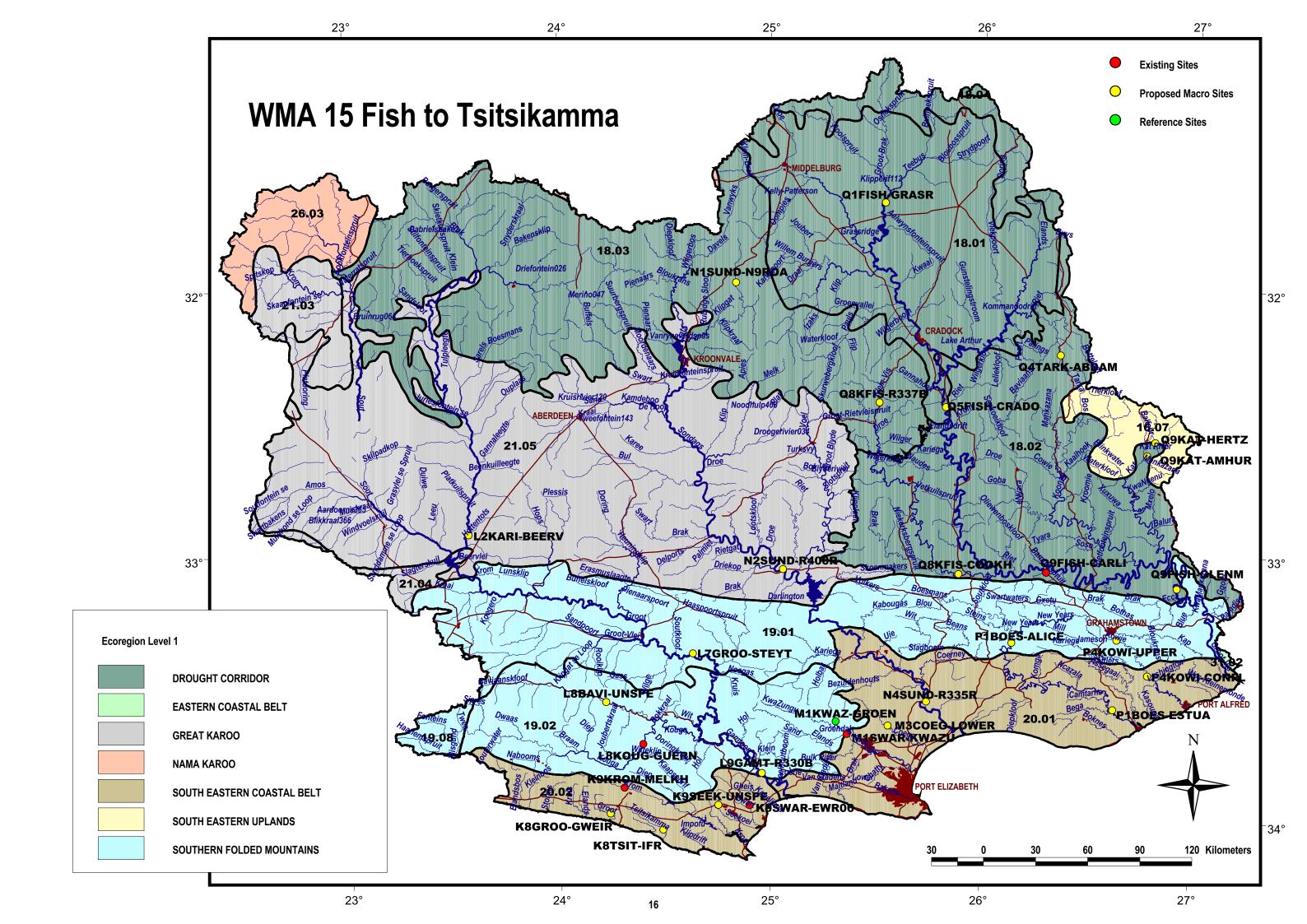


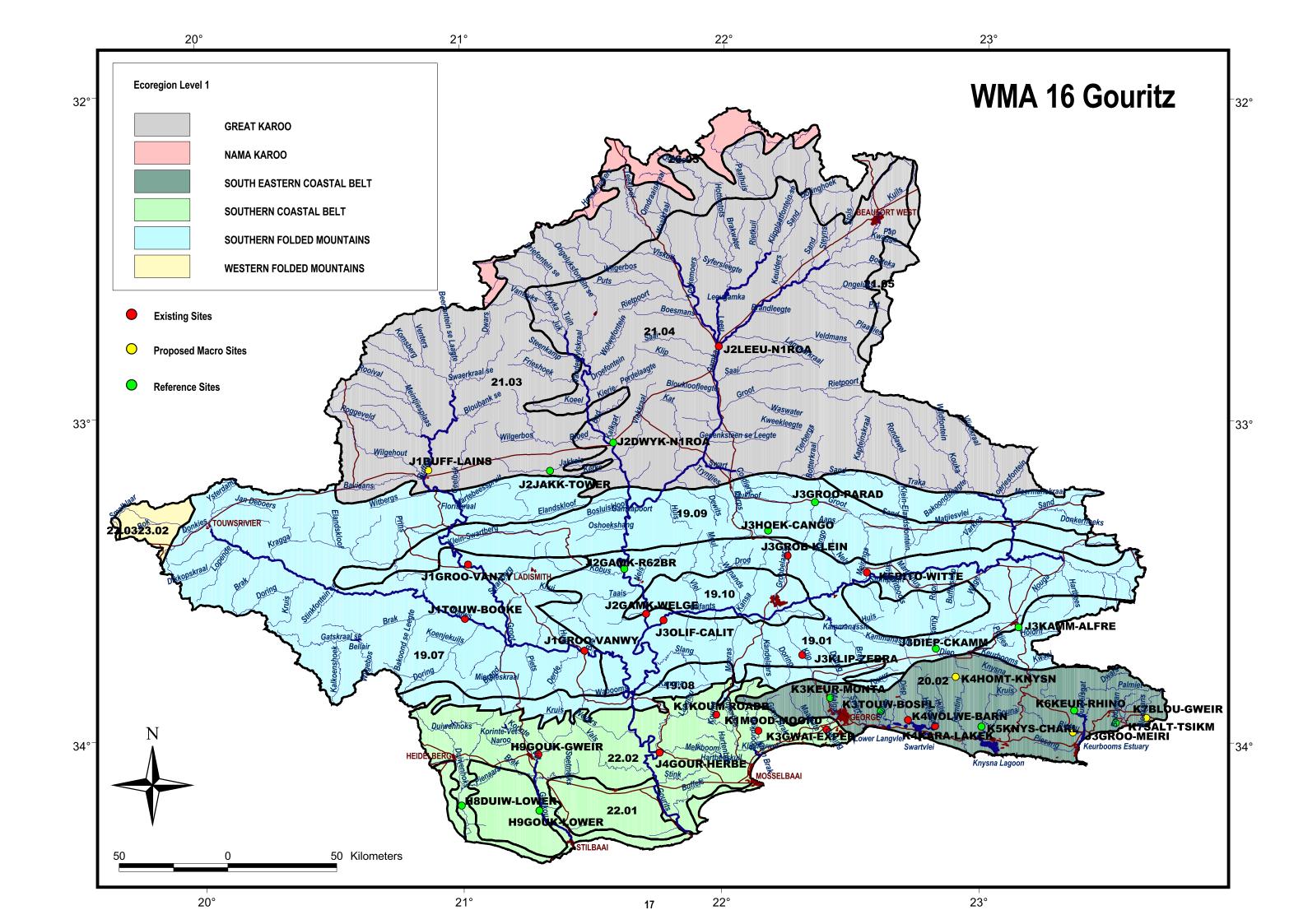


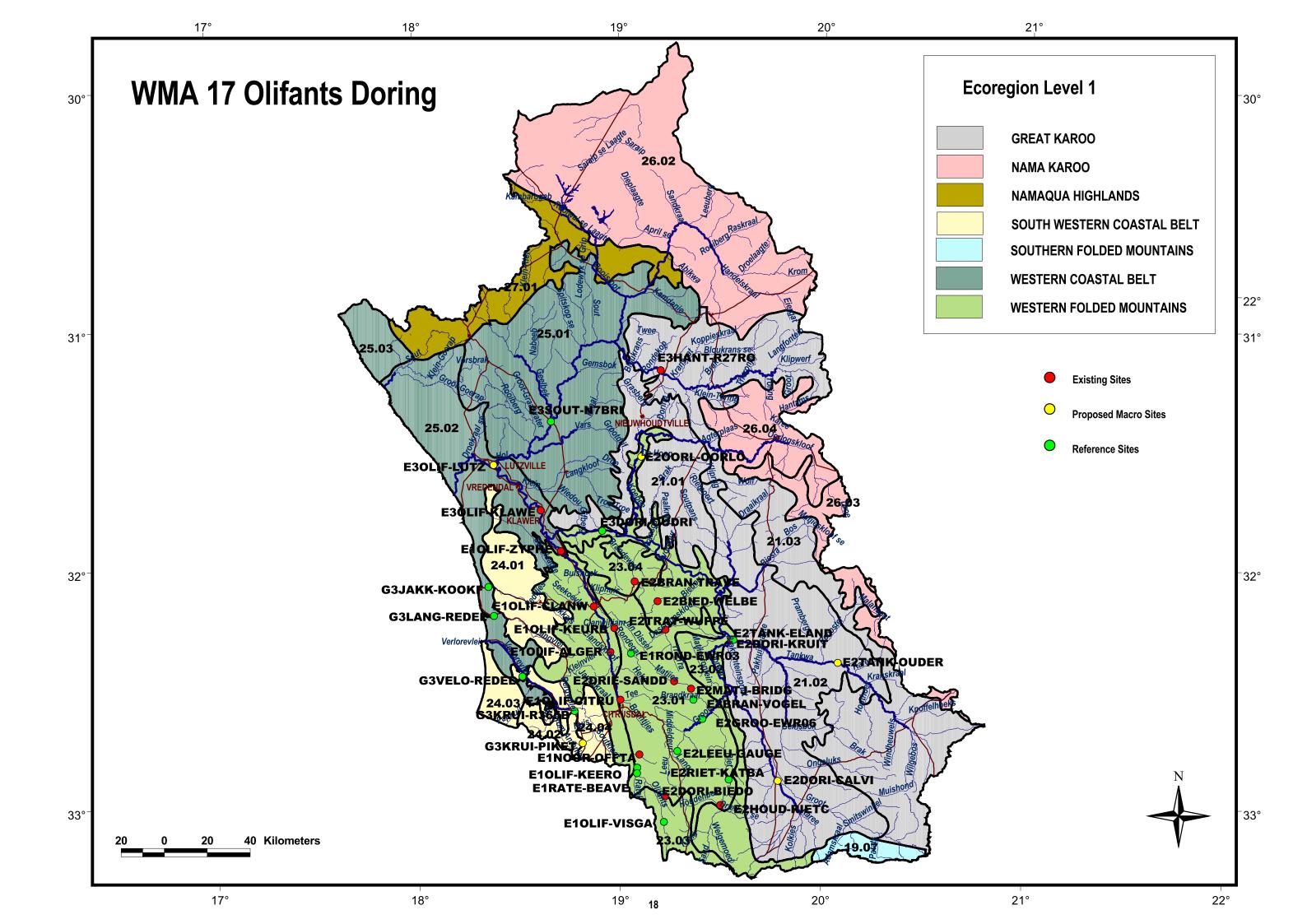


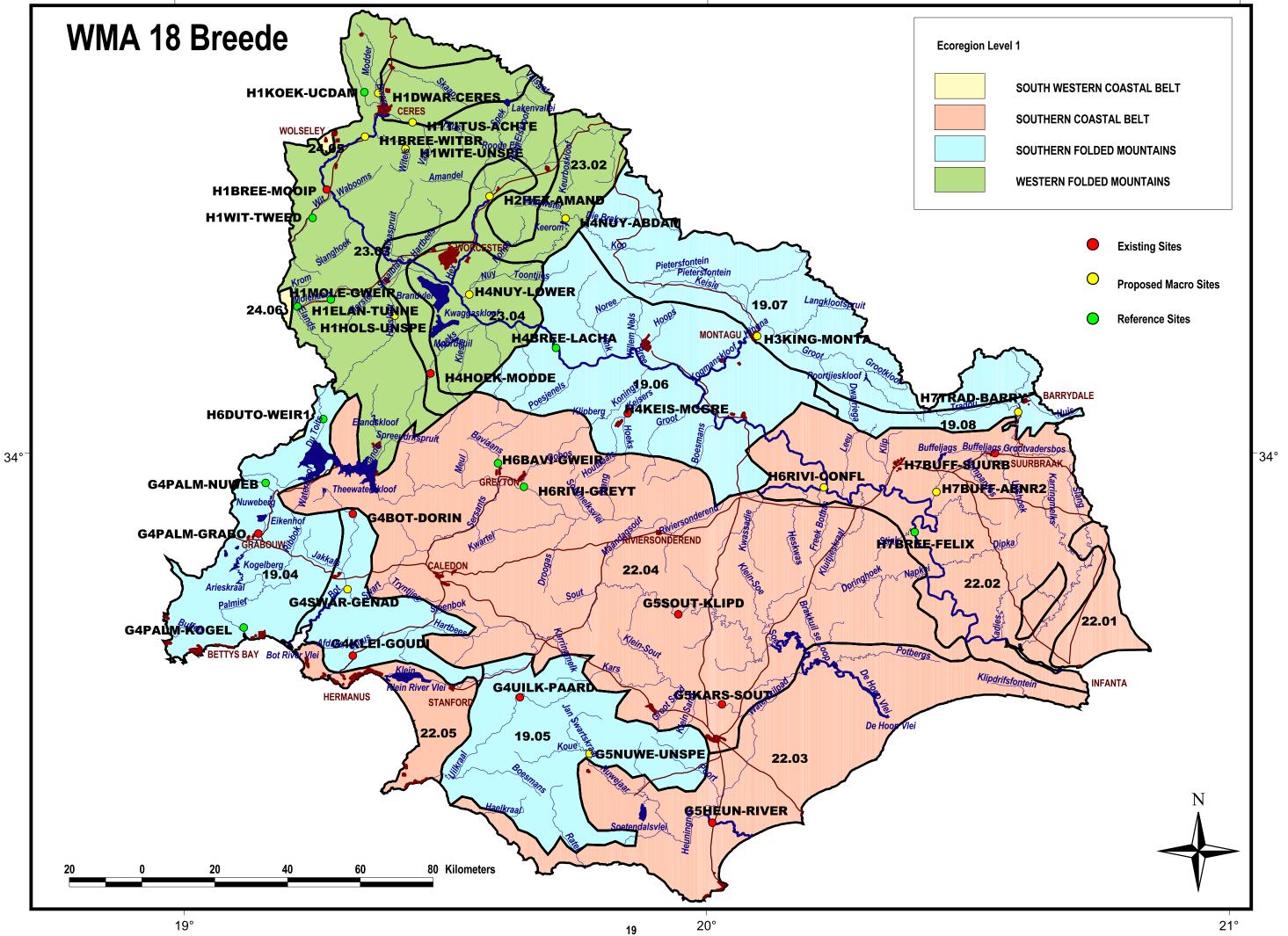












18°

