

Appendix E

ADDITIONAL INFORMATION

Appendix E1

EAP DECLARATION AND EXPERTISE



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF EAP AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	12/12/20/ or 12/9/11/L
NEAS Reference Number:	DEA/EIA
Date Received:	

Application for integrated environmental authorisation and waste management licence in terms of the-

- (1) National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014; and
- (2) National Environmental Management Act: Waste Act, 2008 (Act No. 59 of 2008) and Government Notice 921, 2013

PROJECT TITLE

Working For Wetlands Programme: Western Cape

Environmental Assessment Practitioner (EAP):	Aurecon South Africa Pty (Ltd)		
Contact person:	Franci Gresse		
Postal address:	PO Box 494		
Postal code:	8000	Cell:	-
Telephone:	021 526 6022	Fax:	021 526 9500
E-mail:	Franci.Gresse@aurecongroup.com		
Professional affiliation(s) (if any)	Ms Gresse served on the committee of the South African affiliate of the International Association for Impact Assessment (IAIASa) for the Western Cape Branch from 2009 to 2011, and remains a member.		

Project Consultant:	As Above		
Contact person:			
Postal address:			
Postal code:		Cell:	
Telephone:		Fax:	
E-mail:			

4.2 The Environmental Assessment Practitioner

I, **Franci Gresse**, declare that –

General declaration:

I act as the independent environmental practitioner in this application;
I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
I declare that there are no circumstances that may compromise my objectivity in performing such work;
I have expertise in conducting environmental impact assessments, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
I will comply with the Act, Regulations and all other applicable legislation;
I will take into account, to the extent possible, the matters listed in regulation 8 of the Regulations when preparing the application and any report relating to the application;
I have no, and will not engage in, conflicting interests in the undertaking of the activity;
I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;
I will keep a register of all interested and affected parties that participated in a public participation process;
I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not;
all the particulars furnished by me in this form are true and correct;
will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



Signature of the environmental assessment practitioner:

Aurecon South Africa (Pty) Ltd

Name of company:

09 November 2017

Date:



Franci Gresse

Franci is a senior environmental practitioner in Aurecon's Cape Town office. She has been involved in various environmental investigations, including environmental impact assessments (EIA's), environmental management plans (EMP's), environmental management programmes (EMP's), rehabilitation plans maintenance management plans (MMP's) and fatal flaw analysis.

Franci has been involved with the Working for Wetlands rehabilitation programme for the past five years, of which she has been acting as the Team Leader for the environmental assessment practitioners (EAP's) for the last three years. The Working for Wetlands project won the 2012 Aurecon Chairman's Award for its positive contribution to the natural and social environment. In addition, Franci has also been involved with a number of projects in the renewable energy sector.

Franci served on the committee of the South African affiliate of the International Association for Impact Assessment (IAIA) for the Western Cape Branch from 2009 to 2011, and remains a member. She completed a Bachelor of Science and an Honours Degree in Conservation Ecology at the University of Stellenbosch (South Africa).

Qualifications

BSc (Hons) Conservation Ecology

Member, International Association of Impact Assessment (IAIA)

Specialisation

Environmental Impact Assessment Practitioner

Years in industry

8.08

Experience

Working for Wetlands plan 2016 - 2018, Regional South Africa, Department of Environmental Affairs: Natural Resource Management Directorate, 06/2016 - Date, Project Leader

The Natural Resource Management Directorate of the Department of Environmental Affairs appointed Aurecon to provide environmental and engineering services for the Working for Wetlands Programme which is a national wetland rehabilitation programme. Responsibilities include the management and coordination of the overall project, management of the environmental authorisation component of the project, as well as the compilation of basic assessment reports (BAR) for the country. Other responsibilities include the compilation of wetland rehabilitation plans for the Western Cape, Northern Cape and Limpopo Provinces, liaison with authorities and the public (public participation process) and management of wetland specialists.

Integrated Environmental Impact Assessment (EIA) for the proposed extension of the Ash Dam facility at Kriel power station, Mpumalanga Province, South Africa, Eskom Holdings, 06/2016 - date, Project Leader

Appointed by Eskom to conduct an integrated environmental impact assessment (EIA) for the proposed construction of a fourth ash dam facility at the Kriel power station. Responsible for the general project management and finances, authority liaison and the compilation and review of the EIA documentation.

Amended Environmental and Socio-Economic Impact Assessment for a concentrated solar plant facility near Arandis in the Erongo Region, 02/2016 – 10/2016, Project Leader

Aurecon was appointed by the NamPower to amend the Environmental Clearance Certificate (ECC) issued for the Erongo Coal-fired Power Station at Arandis, to a Concentrated Solar Plant. Responsibilities included project management (programme, finances and client expectations), liaison with authorities and relevant stakeholders, review of specialist reports and the compilation and review of the Amendment Report.



Franci Gresse Senior Environmental Impact Assessment Practitioner

Table Mountain Group (TMG) Aquifer feasibility study and pilot project, Western Cape Province, South Africa, City of Cape Town, 2015 - date, Environmental Consultant

The TMG Aquifer Feasibility Study and Pilot Project was initiated in 2002 and is a long term planning initiative to investigate the groundwater potential of the TMG Aquifer as a water source to augment Cape Town's water supply. Given the recommendations in the Exploratory Phase report, and the fact that the TMG Aquifer has since been utilised as a water resource in areas such as Hermanus and Oudtshoorn, the City of Cape Town decided to omit the Pilot Phase and rather proceed with an extended Exploratory Phase, which would include limited pump testing. Aurecon was appointed to undertake the extended Exploratory Phase work. Responsibilities include the compilation of Environmental Management Plans for the additional test sites, liaison with the relevant authorities and landowners and management of the Environmental Control Officers on the project.

Implementation of the Hoekplaas environmental authorisation (EA), Northern Cape Province, South Africa, Mulilo Renewable Energy, 11/2013 - 05/2015, Project Leader

Aurecon assisted the holder of the environmental authorisation (EA) for the 100 MW photovoltaic (PV) facility in De Aar with the implementation of the environmental conditions to ensure compliance to all relevant environmental legislation. Responsible for the management of tasks and review of all documentation. Also assisting client with questions on the environmental impact assessment (EIA) process.

Environmental impact assessment and compilation of an environmental management plan (EMP) for the Swakopmund-Mile 7 Water Supply, Phase 2, Swakopmund, Namibia, NamWater, 11/2013 - 10/2015, Project Leader

NamWater appointed Aurecon to assist with the environmental impact assessment process for the proposed construction of a new bulk water pipeline between Swakopmund and Mile 7. Responsible for the management and review of the environmental impact assessment (EIA) reports and processes, as well as the project's finances.

Working for Wetlands plan 2014 - 2016, Regional South Africa, South African National Biodiversity Institute (SANBI), 06/2013 – 05/2016, Task Leader

The South African National Biodiversity Institute (SANBI) appointed Aurecon to provide environmental and engineering services for the Working for Wetlands Programme which is a national wetland rehabilitation programme. Responsible for the management of the environmental authorisation component of the project, as well as the compilation of basic assessment reports (BAR) for the country. Other responsibilities include the compilation of wetland rehabilitation plans for the Western Cape, Northern Cape, North West and Limpopo Provinces, liaison with authorities and the public (public participation process) and management of wetland specialists.



Franci Gresse Senior Environmental Impact Assessment Practitioner

Maintenance management plans (MMP's) for flood damaged road infrastructure, Western Cape Province, South Africa, Western Cape Provincial Government Department of Transport and Public Works, 06/2013 - Date, Project Staff

The project entails the compilation of maintenance management plans (MMP's) for two local municipal areas (Laingsburg and Worcester), as well as obtaining the necessary permits/ water use authorisations. Personally involved during the project commencement with regards to strategy development, meetings with the relevant authorities and assistance with the development of the MMP's.

Environmental impact assessment (EIA) for the expansion of approved solar energy facilities located near Prieska and De Aar, Northern Cape Province, South Africa, Mulilo Renewable Energy, 03/2013 - 09/2015, Phase Leader

Mulilo Renewable Energy decided to expand the approved solar energy facilities on the farms Hoekplaas and Klipgats in Prieska, as well as on the farms Badenhorst Dam and Du Plessis Dam in De Aar. The expansion of Hoekplaas farm in Prieska includes ten additional 75 MW photovoltaic (PV) facilities and six additional PV units at Klipgats Pan farm. The expansion at Badenhorst Dam farm includes four additional 75 MW PV facilities and three additional PV units at Du Plessis Dam farm. Responsible for the management and review of the environmental impact assessment (EIA) reports and processes, as well as the project's finances.

Fatal flaw study for two potential Wind Energy Facility (WEF) sites, Northern and Western Cape Provinces, South Africa, Juwi Renewable Energies (Pty) Ltd, 03/2013 - 04/2013, Environmental Practitioner

The study entailed a fatal flaw analysis of two potential wind energy facility (WEF) sites in the Northern and Western Cape Provinces. Responsible for the assessment of the sites and compilation of the fatal flaw report.

Richtersveld wind energy facility (WEF), Northern Cape Province, South Africa, TRE Tozzi Renewable Energy S.p.A and Guma Group, 07/2012 - 09/2013, Environmental Practitioner

The project entailed a due diligence of the proposed wind energy facility (WEF) to review compliance with the requirements of the Department of Energy's independent power producer (IPP) process. Responsible for the review of the environmental reports and compilation of the due diligence report.

Three photovoltaic (PV) energy facilities near Copperton, Northern Cape Province, South Africa, Mulilo Renewable Energy (MRE), 09/2011 - 05/2015, Environmental Practitioner

The project entailed three environmental impact assessments (EIA's) for three photovoltaic (PV) energy facilities comprising 75 MW to 150 MW, located near Copperton. Responsible for the management the EIA process and project specialists, compilation of scoping and EIA reports and liaison with authorities.

Fatal flaw study for four potential wind energy facility (WEF) sites, Northern and Western Cape Provinces, South Africa, Mainstream Renewable Power South Africa, 11/2011 - 05/2012, Environmental Practitioner

The study entailed a fatal flaw analysis of four potential wind energy facility (WEF) sites across the Northern and Western Cape Provinces. Responsible for the management of specialists, review of reports, assessment of the sites and compilation of the fatal flaw report.



Franci Gresse Senior Environmental Impact Assessment Practitioner

Implementation of the Klipgats Pan environmental authorisation (EA), Northern Cape Province, South Africa, Mulilo Renewable Energy, 09/2011 - 05/2015, Project Leader

Aurecon was appointed to undertake three environmental impact assessments (EIA's) for three proposed photovoltaic (PV) solar energy plants near Copperton. The first PV solar energy plant will generate around 100 MW (preferred alternative) or 150 MW (alternative) on the Hoekplaas Farm (Farm 146/RE). The proposed PV plant will cover approximately 300 ha (preferred alternative) or 450 ha (alternative). The second includes a PV solar energy plant to generate roughly 100 MW on the farm Klipgats Pan (Farm 117/4) near Copperton in the Northern Cape. The proposed PV plant will cover an estimated 300 ha. An alternative site for a 100 MW PV plant with a 300 ha footprint is also being considered. The third comprises a PV solar energy plant to generate about 100 MW (preferred alternative) or 300 MW (alternative) on the farm Struisbult (Farm 104, portion 1) which will cover 300 ha to 900 ha. Responsible for managing tasks and reviewing all documentation for updating the environmental management plan (EMP) and implementing the environmental authorisation (EA). Also assisted client with questions on the EIA process.

Proposed rehabilitation of Wetlands as part of the Working for Wetlands, Regional, South Africa, South African National Biodiversity Institute (SANBI), 08/2011 - 09/2013, Environmental Practitioner

Appointed by the South African National Biodiversity Institute (SANBI) to conduct environmental impact assessments (EIA's) for the rehabilitation of specific wetlands in all provinces of South Africa over a five year period. Responsible for the compilation of basic assessment reports (BAR) and Wetland Rehabilitation Plans for the Western Cape, Northern Cape, Gauteng and Limpopo Provinces. Other responsibilities included liaison with authorities, public participation process, management of specialists and general project management of the environmental component of the project.

Repair of flood damage to road structures in the Eden District Municipality, Western Cape Province, South Africa, Western Cape Provincial Department of Transport and Public Works, 01/2011 - Date, Environmental Practitioner

The project entails the compilation of maintenance management plans (MMP) for seven areas within the Eden District Management Area to repair. Responsible for compilation of MMP's, review of reports and liaison with stakeholders and authorities.

Environmental impact assessment (EIA) for the proposed extension of the Ash Dam facility at Kriel power station, Mpumalanga Province, South Africa, Eskom Holdings, 11/2009 - 12/2015, Environmental Practitioner

Appointed by Eskom to conduct an environmental impact assessment (EIA) for the proposed construction of a fourth ash dam facility at the Kriel power station. Responsible for the general project management and finances, screening process, compilation of the scoping and EIA reports, public participation and the compilation of a waste management licence application.



Franci Gresse Senior Environmental Impact Assessment Practitioner

Environmental impact assessment (EIA) for proposed relocation of solar energy facility, Onder Rietvlei Farm, Aurora, Western Cape Province, South Africa, Solaire Direct Southern Africa, 2010 - 2011, Project Leader

Appointed by Solaire Direct to undertake a basic environmental impact assessment (EIA) process for the proposed relocation of an approved, but not yet constructed 10 MW solar energy facility. Responsible for the management and review of the EIA process and finances.

Environmental impact assessment (EIA) for proposed solar energy facility, Onder Rietvlei Farm, Western Cape Province, South Africa, Solaire Direct Southern Africa, 07/2010 - 02/2012, Environmental Practitioner

Appointed by Solaire Direct to undertake a basic environmental impact assessment process for the proposed construction of a 10 MW solar energy facility. Responsible for the compilation of the draft and final reports, public participation process, management of specialists and general project management.

Proposed Paarl Mountain and Ysterbrug pumping main upgrades, Western Cape Province, South Africa, Drakenstein Municipality, 06/2010 – 12/2015, Environmental Advisor

The Drakenstein Municipality appointed Aurecon's engineers to investigate and plan the proposed upgrade of the Paarl Mountain and Ysterbrug Pumping Scheme. The upgrading of the pipelines feeding the Meulwater Water Treatment Works from the Bethel and Nantes dams, also part of this scheme, was also investigated. Responsible for providing advice on environmental processes required. Other responsibilities included the management of the independent environmental assessment practitioner and the review of all environmental impact assessment (EIA) documentation.

Environmental sensitivity study (ESS) for a proposed solar energy facility on a farm Near Aurora, Western Cape Province, South Africa, Solaire Direct Southern Africa, 2010, Environmental Practitioner

Appointed to provide an environmental sensitivity study (ESS) which inter alia highlights the potential constraints ('red flags') and opportunities presented by the site from an environmental perspective. Responsible for the compilation of the ESS.

Proposed remediation, rehabilitation and restoration of the Spruit, Krom, Leeu and Palmiet Rivers, Western Cape Province, South Africa, Drakenstein Municipality, 2009 - 2010, Environmental Practitioner

Appointed by the Drakenstein Municipality to undertake the requisite environmental impact assessment (EIA) process for the rehabilitation, remediation and stabilisation of four rivers in Paarl and Wellington. Responsible for the EIA and public participation processes.

Proposed construction of a new pipeline from Bovlei Winer to Withoogte Dam, Wellington, Western Cape Province, South Africa, Drakenstein Municipality, 2009 - 2010, Environmental Practitioner

The Drakenstein Municipality proposed to replace a section of the existing pipeline extending from the Withoogte Dam to the Welvanpas Reservoir near Wellington as part of the municipality's water master plan in order to improve the overall water supply. Responsible for the compilation of the environmental impact assessment (EIA) report, management of specialists and the public participation process.



Franci Gresse Senior Environmental Impact Assessment Practitioner

Proposed erection of Eskom communication sirens and public announcement (PA) systems, Blaauwberg, Western Cape Province, South Africa, Eskom, 2009 - 2010, Environmental Practitioner

The project entailed three environmental impact assessment (EIA) processes for the (a) erection of 10 new sirens in the Parklands area, (b) the relocation of one siren in Bloubergstrand, and (c) the upgrade of five sirens on farms near Melkbosstrand. Responsible for compiling environmental impact assessment (EIA) reports, and the public participation process.

Overberg District Municipality integrated transport plan (ITP) strategic environmental informants, Western Cape Province, South Africa, Overberg District Municipality, 2009, Environmental Practitioner

Aurecon's Transportation Unit was appointed to revise the integrated transport plan (ITP). The Environmental Unit was subcontracted to provide environmental input. Responsible for identifying and describing the relevant informants.

Annandale Commercial: development of petrol filling station on portion of Erf 5561, Kuils River, Western Cape Province, South Africa, Communicate, 2009, Environmental Practitioner

Appointed to compile a construction environmental management plan (CEMP) for the construction of a filling station on the corner of Gladioli Street and Amandel Drive, Kuils River. Responsible for the compilation of the project specification document as part of the CEMP.

Environmental impact assessment (EIA) for the proposed Langezandt Quays development in Struisbaai Harbour, Western Cape Province, South Africa, Golden Falls (Pty) Ltd, 2008 - Date, Environmental Practitioner

Aurecon was appointed to undertake an environmental impact assessment (EIA) process for the proposed development of a four storey development on Erf 848 within the Struisbaai harbour precinct. Responsible for drafting responses to the Department of Environmental Affairs' independent review report on the proposed development.

Pre-feasibility and feasibility studies for augmenting the Western Cape water supply system, South Africa, Department of Water Affairs (DWA), 2008 - 2013, Project Staff

The Department of Water Affairs commissioned pre-feasibility and feasibility studies for the augmentation of the Western Cape water supply system through the further development of the surface water resources. Surface water schemes to be investigated were identified by the Western Cape water supply system reconciliation strategy study. Responsible for the public participation process, managing environmental specialists, and compiling a socio-economic overview of the study area.

Proposed redevelopment of the Blaauwberg Conservation Area: Eerstestein Node, Western Cape Province, South Africa, City of Cape Town, 2008 - 2010, Environmental Practitioner

The project entailed an environmental impact assessment (EIA) process for redeveloping the Eerstestein Conservation Area on the West Coast. Responsible for compiling the EIA report, as well as managing specialists and the public participation process.



Franci Gresse Senior Environmental Impact Assessment Practitioner

Table Mountain Group aquifer feasibility study and pilot project, Western Cape Province, South Africa, City of Cape Town, 2008 - 2010, Environmental Control Officer

The City of Cape Town initiated a study into the Table Mountain Group Aquifer as a potential water source to augment the city's supply. The feasibility and pilot project phase record of decision (RoD) required completion for site-specific environmental management plans (EMP's) for drilling sites that were assessed to be environmentally sensitive. Site-specific EMP's were designed for sensitive sites to ensure minimal environmental impact during the drilling phase. Responsible for monitoring compliance with the RoD and EMP during the drilling phase.

Water reconciliation strategy for the Algoa water supply area, Eastern Cape Province, South Africa, 2008 - 2009, Environmental Practitioner

This project provided an assessment of the environmental opportunities and constraints for a suite of water schemes in the Algoa water supply area. This was undertaken as part of a broader study in the area.

Application for rectification in terms of Section 24G of the National Environmental Management Act (NEMA) for the unlawful commencement of a fruit processing factory on Op de Tradouw Farm, Number 69, Barrydale, Western Cape Province, South Africa, Schoonies Family Trust, 2008 - 2009, Environmental Practitioner

The project consisted of an application for rectification in terms of Section 24G of NEMA. Responsible for compiling an environmental impact report and an environmental management plan (EMP) for the application, as well as managing the public participation process.

Proposed development of apple and pear orchards on Soetmelksvlei Farm, Western Cape Province, South Africa, BETCO, 2008 - 2009, Project Staff

This Agri-development project involved the development of 50 ha of apple and pear orchards in the Riviersonderend region. Responsible for compiling the basic assessment report, environmental management plan (EMP), and managing the specialists and public participation process.

C.A.P.E. Olifants-Doring Catchment Management Agency project: Development of a catchment management strategy water resource protection sub-strategy for the Olifants-Doring Catchment, South Africa, CapeNature, 2008 - 2009, Environmental Practitioner

Appointed by CapeNature to compile a catchment management strategy water resource protection sub-strategy for the Olifants-Doorn catchment. Responsible for compiling a database that lists all institutions and their respective mandates in terms of water resource protection and biodiversity conservation decision making for the Olifants-Doring Catchment, workshop arrangements, and general project related work.

Environmental sensitivity study for the proposed Dasdrif poultry farm in Moorreesburg, Western Cape Province, South Africa, Eikenhoff Poultry Farms (Pty) Ltd, 2008, Project Staff

The project consisted of an environmental sensitivity study (ESS) which, inter alia, highlighted the potential constraints ('red flags') and opportunities presented by the site from an environmental perspective. Responsible for compiling the ESS.

Appendix E2

SPECIALIST DECLARATION AND EXPERTISE



environmental affairs

Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA

DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

	(For official use only)
File Reference Number:	12/12/20/ or 12/9/11/L
NEAS Reference Number:	DEA/EIA
Date Received:	

Application for integrated environmental authorisation and waste management licence in terms of the-

- (1) National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014; and
- (2) National Environmental Management Act: Waste Act, 2008 (Act No. 59 of 2008) and Government Notice 921, 2013

PROJECT TITLE

Working For Wetlands: Western Cape

Specialist:	Freshwater Consulting Group		
Contact person:	Kate Snaddon		
Postal address:	PO Box 43935, Scarborough		
Postal code:	7975	Cell:	072 232 7709
Telephone:	021 780 1027	Fax:	-
E-mail:	katesnaddon@telkomsa.net		
Professional affiliation(s) (if any)	SACNASP registration number: 400225/06		

Project Consultant:	Aurecon South Africa Pty (Ltd)		
Contact person:	Franci Gresse		
Postal address:	PO Box 494		
Postal code:	8000	Cell:	-
Telephone:	021 526 6022	Fax:	021 526 9500
E-mail:	Franci.Gresse@aurecongroup.com		

4.2 The specialist appointed in terms of the Regulations_

I, Kate Snaddon , declare that --

General declaration:

- ✓ I act as the independent specialist in this application;
- ✓ I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- ✓ I declare that there are no circumstances that may compromise my objectivity in performing such work;
- ✓ I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- ✓ I will comply with the Act, Regulations and all other applicable legislation;
- ✓ I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- ✓ I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- ✓ all the particulars furnished by me in this form are true and correct; and
- ✓ I realise that a false declaration is an offence in terms of regulation 48 and is punishable in terms of section 24F of the Act.



Signature of the specialist:

Freshwater Consulting cc

Name of company (if applicable):

2nd November 2017

Date:

Kate Snaddon

Curriculum vitae

Full Name	Catherine Diana Snaddon
Address	P O Box 43935 Scarborough 7975 Cape Town
Telephone/Fax number	021-780 1027(h) and 021-783 0155 (w)
Cell number	072 232 7709
Email	katesnaddon@telkomsa.net
SACNASP registration number	400225/06
Date of birth	19 July 1969
Nationality	South African
Position in company	Member and Senior Consultant

KEY QUALIFICATIONS

- B.Sc., Majoring in Zoology (with Distinction), University of Cape Town, 1989
- B.Sc. (Hons), Zoology (with Distinction), University of Cape Town, 1990
- M.Sc, Zoology (with Distinction), University of Cape Town, 1998

WORK EXPERIENCE & RESPONSIBILITIES

March 2003 – present	Senior Freshwater Ecological Consultant, Freshwater Consulting Group, Cape Town
March 2012 - present	Non-executive Director, Freshwater Research Centre, Cape Town
Position held within FCG	Member and senior consultant. FCG is a registered company (Freshwater Consulting cc) of freshwater ecological consultants, based in Cape Town. FRC is a registered research NPO, also based in Cape Town.
Responsibilities	Responsibilities on projects completed for the FCG range from specialist consultant on small projects, to working as a team of multi-disciplinary consultants on larger projects. The maximum number of sub-consultants, or assistants under my employ as lead consultant, is seven. I have managed some of the larger projects on which fellow FCG consultants have worked.
July 2000 - October 2002	Sustainable Business Solutions team, PricewaterhouseCoopers, London, UK
Position held within company	Senior associate
Responsibilities	My responsibilities at PwC were primarily as co-consultant on large projects focusing on waste management, environmental compliance, life cycle analysis, and environmental due diligence.
March 1995 - March 2000, part-time basis	Freelance ecological consultant, Cape Town
January 1996 - January 2000	Research Officer on Water Research Commission Project, Freshwater Research Unit, University of Cape Town
February 1991 - August 1992	Research Assistant, Freshwater Research Unit, University of Cape Town

RELEVANT EXPERIENCE

Kate has 21 years of experience in the field of freshwater ecology (both as a researcher and consultant) and general environmental consulting. Her specialist skills lie in the areas of:

- Freshwater ecology;
- Wetland mapping and delineation;
- Conservation planning for the aquatic environment;
- Strategic Environmental Assessments of infrastructure projects that may impact on the aquatic environment;
- Environmental Impact Assessment, specifically the assessment of the impacts of anthropogenic activities on freshwater ecosystems;
- River and wetland management and rehabilitation;
- Management and implementation of ecological monitoring and research programmes;
- Freshwater macroinvertebrate collection and identification;
- SASS5 bio-monitoring and water quality monitoring.

Kate has worked extensively in the Western Cape, and, more recently, in the Northern Cape, and elsewhere in Africa including Mozambique and Kenya. She has submitted over 100 specialist freshwater ecological consultancy reports, and has published four Water Research Commission reports, four chapters in international books, a South African National Biodiversity Institute wetland classification manual and 11 scientific papers. For the past three years, Kate has been the wetland specialist for the Western Cape's Working for Wetlands Programme.

PROFESSIONAL SOCIETIES / ASSOCIATIONS AND ACCREDITATIONS

Kate is a professional member (ecologist) of the South African Council for Natural Scientific Professionals. She is also an accredited SASS5 practitioner. Kate sits on SANBI's National Wetland Ecosystem Classification Committee, and is a Founding Board Member and Chair of the South African Wetland Society. Kate is also a non-executive director of the Freshwater Research Centre, a research Non-Profit Organisation, which runs and participates in freshwater ecological research projects around the country.

PROJECTS

Strategic Environmental Assessments and Environmental impact assessment

- National shale gas SEA, 2015 – August 2016: Kate was a contributing author on the Biodiversity Chapter for this SEA, which aims to explore the probable impacts associated with shale gas exploration and extraction in South Africa.
- Square kilometre array (SKA) SEA, 2015 - present: Kate is lead freshwater ecological consultant on the SKA SEA Phase 1 team, led by the CSIR. The project aims to determine how best to locate the infrastructure associated with the SKA project in order to minimise the environmental impacts.
- National Electricity Grid Infrastructure SEA, 2015: FCG was lead consultant on the CSIR's national electricity grid infrastructure (SIP10 – Electricity Transmission and Distribution) SEA, providing input on the terrestrial and aquatic biodiversity component. The aim of the project was to develop sensitivity maps for the national transmission corridors, in order to guide future location of infrastructure, and to streamline the authorisation processes required for each project.

- National Wind and Solar Photovoltaic SEA: Terrestrial and Aquatic Biodiversity Specialist Input; 2014: FCG was co-consultant on the CSIR's national wind and solar photo-voltaic SEA, providing aquatic ecological input to a sensitivity map for eight focal areas earmarked for wind and solar projects. The aim of the project was to develop sensitivity maps for the focal areas, in order to guide future location of infrastructure, and to streamline the authorisation processes required for each project.

Biodiversity planning

- National Freshwater Ecosystem Priority Areas (NFEPA) project, 2010: Kate provided specialist input on wetlands of the Western Cape, and input to the ecosystem guidelines for the management and conservation of wetlands and rivers.
- C.A.P.E. fine-scale biodiversity planning project; 2006 – 2008. Kate was project leader for this work, which was commissioned by CapeNature to manage the freshwater component of this project. FCG and the CSIR provided detailed digitised maps of wetlands and rivers that lie within 9 municipalities in the Western Cape. In addition, the maps were integrated with terrestrial information to generate maps of critical biodiversity areas, areas that are important for supporting biodiversity processes, and areas that are suitable for rehabilitation. Guidelines for land use and management were produced for all areas and types of freshwater ecosystem. .
- City of Cape Town Biodiversity Network Prioritisation Project; 2004: The FCG was involved in a project co-ordinated by Marlene Laros and Associates – Sustainability Matters, developing the concepts around biodiversity nodes, corridors and criteria for categorisation and prioritisation of the Biodiversity Network. Our focus was on how best to conserve freshwater biodiversity freshwater ecosystems and effectively manage land designated for the conservation of biodiversity, within the context of a City-wide biodiversity network.
- City of Cape Town Wetlands Prioritisation; February 2009 – June 2009: Kate was project leader on this project, in which FCG completed a systematic prioritisation of wetlands in the City of Cape Town for the conservation of biodiversity, for incorporation into the largely terrestrial Biodiversity Network. Prioritisation involved the ranking of wetlands within each wetland type according to importance and sensitivity, current condition, and the viability of conservation. Each wetland was categorised into critical biodiversity areas (CBA), critical ecological support areas (CESA), or other ecological support areas (OESA).

Aquatic ecosystem classification, delineation, monitoring, assessment, and inventory

- Update of National Wetland Map (Version 5), 2016 – 2017: Kate is project leader on a team updating the wetland map for the winter rainfall region of South Africa. The project entails mapping and training of junior staff regarding delineation and mapping of wetlands, classification and assessment of condition.
- Classification System for Wetlands and other Aquatic Ecosystems in South Africa, 2013: Kate was one of the authors of the user manual for inland systems, published by SANBI.
- National Wetland Classification Project; September 2005 – December 2009. The FCG, in association with the Freshwater Research Unit (UCT) were involved the development of a National Wetland Classification System for South Africa. This was a two-phase project, culminating in the publication of a Water Research Commission (WRC) report in Phase 1 and two reports for the South African National Biodiversity Institute (SANBI) in Phase 2. The wetland classification system that was developed encompasses Marine, Estuarine and Inland Systems, in line with the definition of the Ramsar Convention.
- Western Cape Wetlands Inventory; January 2005 – January 2006. This project was the first phase (funded by Table Mountain Fund) of a project that aims to develop an inventory of

wetlands in the Western Cape. The main objective of this phase of the project was to identify and collate all initiatives and available information dealing with the location, character, available information, management and condition of wetlands in the Western Cape. Four hundred and forty-nine data sources have been included in the directory, representing 1851 wetland sites (approximately 703 wetlands). A number of existing GIS wetlands covers were consulted, including ENPAT, the sensitive wetlands map, the C.A.P.E. freshwater map, and the BotSoc lowlands map, which were integrated to a certain extent for future ground-truthing. The review document includes information on using the Western Cape Wetlands Directory Database and GIS covers, an analysis of trends in the data in the directory, such as research bias in the collection of biodiversity data, and provides recommendations for the development of a Western Cape Wetlands Inventory database.

- City of Cape Town Wetland GIS map, ground-truthing and prioritisation; October 2006 – February 2009. This project comprised the mapping and classification of all wetlands within the City of Cape Town, based on 1:10 000 orthophotos, and ground-truthing of a subset of the wetlands. The aim of the project was to aid development planning, the refinement of the City's Biodiversity Network, and in "red-flagging" areas subject to development pressure.

Rehabilitation and restoration of rivers and wetlands

- Wetland specialist on Aurecon team for the Working for Wetlands Rehabilitation Planning for 2014 to 2016, and 2016 to 2018. This project assesses, plans, designs and implements interventions on wetlands throughout South Africa, in order to improve wetland functioning and biodiversity. The specialist provides ecological advice to the team of engineers responsible for designing the structures, and to the provincial co-ordinator in the Western Cape, who must prioritise wetlands for rehabilitation. The work requires the development of rehabilitation and management plans for each wetland.
- River and wetland rehabilitation of the Chiveve River in Beira, Mozambique, 2014 - present: Kate developed an environmental management and rehabilitation plan for the Rio Chiveve, as a contribution to a Climate Change Adaptation project, where the aim was to improve the capacity of a small urban river to accommodate flood flows and high tides. Further wetland rehabilitation is aimed at improving the ecological functioning of the upper reaches of the river.
- Tshokwane River and Wetlands: Situation Assessment and Rehabilitation Plan. 2013. The Tshokwane wetlands are associated with the Keurbooms River near Plettenberg Bay. The wetlands were assessed in terms of their conservation importance, and a rehabilitation and management plan prepared for implementation by the local residents and municipality.
- Research into and assessment of river and wetland engineering and rehabilitation activities within the City of Cape Town: 2005. Realisation of project goals and their ecological implications. This project involved an assessment of strengths and weaknesses, from an ecological perspective, of implemented engineering and other projects involving manipulation of freshwater ecosystems in the CMA. Further work included the formulation of a handbook of best management practice regarding intervention for the prevention of erosion.

Monitoring programmes and Ecological Reserve Determination

- Table Mountain Group Aquifer: Exploratory Phase Ecological and Hydro(geo)logical Monitoring; July 2007 – October 2010 and December 2010 – June 2014: In the first phase of monitoring (EPM1) FCG formed a joint venture with GEOSS and COASTEC in order to undertake the ecological monitoring of a number of stream and wetland sites that are groundwater-fed, in order to build up baseline information prior to the abstraction of water from the TMGA for use in Cape Town. FCG was the sole consultancy responsible for the continuation of ecological and hydrogeological monitoring from 2010 – 2014 (EPM2).

- Berg River Baseline Monitoring Programme; 2002 -2006 – FCG have co-managed this long-term monitoring project over the past 4 years. Responsibilities have included devising terms of reference and management of scientific information gathering and collation, investigation and understanding of the macro-invertebrate and periphyton communities of the Berg River, including their regulation by the natural flood regime; investigation of the effects of flow regulation on water quality variables; extensive field and laboratory work, report writing, and the development of a conceptual model of the river structure and function, including the internationally significant Berg River estuary and floodplain.
- Pilot study on the impacts of sedimentation on the freshwater invertebrates of Lake Victoria, Kenya; 2005. The FCG took part in this international project, during which samples were taken of the Lake Victoria benthos during two seasons. The objective was to investigate links between the increases in sediment transport and sedimentation along the shores of the lake, and the invertebrate communities inhabiting the lake's sediments.
- Brooklands Dam feasibility study, 2005. The FCG provided specialist freshwater ecologist input for the impact assessment and formulation of the Ecological Reserve for the affected river catchments.
- Riviersonderend Situational Assessment, 1999; examination of the effects of Theewaterskloof on the flow regime and river ecosystem – Members of the FCG undertook an investigation of the effects of the altered flow regime in the Riviersonderend, as a result of the presence of and release patterns from Theewaterskloof Dam, and assessment of the potential to explore further utilisation of the water resource (the study formed part of the Western Cape System Analysis).

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Appendix E3

WETLAND FORUM MEETING MINUTES



WESTERN CAPE WETLANDS FORUM

c/o Stellenbosch University, JS Marais Building, Stellenbosch, 7600
 Contact person: Philip Frenzel; E-mail: philip.frenzel3@gmail.com

MINUTES: Western Cape Wetlands Forum

Date: 13 September 2017 at 12h00 – 14h45

Venue: Kristo Pienaar Environmental Education Centre at Tygerberg Nature Reserve, Cape Town

No.	ITEM
1	Welcome, attendance and apologies
	The acting Chairperson (Shaddai Daniel) opened the meeting and welcomed all. An attendance register was circulated and apologies were mentioned.
2	Minutes from previous meeting
	Minutes were accepted from the previous meeting on 14 June 2017. No matters arising.
3	Annual General Meeting – due to the numbers attending, which did not constitute a quorum, it was decided to postpone the AGM until the 8th November 2017 meeting at the False Bay Ecology Park. The election of the new steering committee members will take place at the AGM, and members are encouraged to send nominations through to the Forum steering committee.
4	<p><u>General announcements</u></p> <p><u>Events:</u></p> <ul style="list-style-type: none"> National Wetlands Indaba will be held between 16 and 19 October 2017 at the Wild Coast Sun in Port Edward, KwaZulu Natal. R12 000 due to be paid out for Western Cape student bursaries towards 2017 Wetland Indaba attendance Final quarterly meeting for 2017 will be held on 8 November at False Bay Ecology Park. <p><u>Committee changes:</u></p> <ul style="list-style-type: none"> Mark regretfully stepped down as chair in March 2017 due to new work commitments. Due to issues of obtaining quorum at this meeting, <p><u>General announcements:</u></p> <ul style="list-style-type: none"> The City of Cape Town's Council has approved a nomination to apply for Ramsar City status. If this supported by the National Dept of Environmental Affairs and approved by the International Ramsar committee, Cape Town will be amongst the first cities in the world to achieve this recognition for the work on wetland management, wise use, rehabilitation and protection. Watch this space! Congratulations to Julia Wood for preparing this nomination. A steering committee has been set up related to the nomination. A representative of the WC Wetlands Forum will sit on this steering committee. Shaddai Daniel (deputy chair) and Philip Frenzel (secretary) will be attending the National Wetland

No.	ITEM
	Indaba to represent the forum.
5	Presentations/Talks
5.1	<p>LAB: Wetlands – Working with local government to protect wetlands</p> <ul style="list-style-type: none"> • Kirsty Robinson (ICLEI) • Email: Kirsty.robinson@iclei.org
	<p>ICLEI is a global association of cities, towns and metropolises that promote urban sustainability. LAB, or Local Action for Biodiversity, is a program that is run in South Africa and focuses on land use planning around wetlands and natural assets in an urban context.</p> <p>The program has been a massive success and has been adapted individually to 11 municipalities across South Africa. Some achievements of the LAB program: (1) Council approval and inception meetings, (2) Wetland awareness raising workshops, (3) Wetland reports for each municipality, (4) Creating compact wetland profiles with key findings, (5) Wetland strategy and action planning workshops for each municipality, (6) Creating networking and learning opportunities, (7) Strategy and action planning guidelines, (8) Wetland awareness raising videos (available on YouTube), (9) Political leader workshops and establishment of the ‘Durban Commitment’, (10) Implementation project, (11) Wetland management guidelines, and (12) Creating case studies to highlight what has been done and where work needs be done.</p> <p><u>Questions and answers:</u></p> <p>Q: Are you aware of BirdLifeSA’s work and how much of their work is also in wetland sites? A: Yes. We have worked with a lot of other organizations, including BirdLifeSA.</p> <p>Q: How do you select municipalities for this program? A: The municipalities go through a selection process and are considered based on: their relationship/connection between the environment, political leaders, work with other NGO’s; presence of wetlands in the municipality; where there are communities with a reliance on wetlands; etc. Going forward: we would like to roll it out to more municipalities, however this is funding dependent.</p> <p>Q: Is there an opportunity for other municipalities to join the program – especially those that are not on the ICLEI database? A: Yes. They are still encouraged to apply, however municipalities are prioritized. We start at a district level first (e.g. Winelands Municipality), and then local (e.g. Stellenbosch or Drakenstein).</p> <p>Q: Landscape restoration efforts are extremely extensive – especially if they are over a large area and may need budgets of a few million rands. Does ICLEI have this type of money for such efforts? A: Unfortunately not. We work on a smaller scale and focus on key areas – amounting to e.g. half a million rand.</p>
5.2	<p>Cape Town’s nomination to Ramsar for City Wetland Accreditation</p> <ul style="list-style-type: none"> • Julia Wood (City of Cape Town) • Email: Julia.wood@capetown.gov.za
	<p>The Ramsar Convention on Wetlands of International Importance is an international treaty for the conservation and wise use of wetlands. South Africa became a signatory to this convention in 1971. Recently the City-owned False Bay Nature Reserve was declared a Ramsar site, one of 23 in South Africa and five in the Western Cape. It is the only truly urban Ramsar site which provides the City with a huge</p>

No.	ITEM
	<p>opportunity to ensure that this reserve benefits and educates the local communities on biodiversity and wetland issues. This is a huge achievement and recognises the importance and uniqueness of the City's natural assets and its ability to manage these assets.</p> <p>Benefits to the City include:</p> <ul style="list-style-type: none"> • Showcasing the City in a global arena. • Recognition of the City's work in wetland protection; sustainable use; education and awareness. • Recognition of the City's work in client focus and community participation • Providing an working example align to the principle of Resilient Cities • Providing a platform for community engagement in the protection and wise use of wetlands, an example of the client centred approach • Providing networking and lesson sharing opportunities • Providing access to international funding opportunities <p>Accreditation as a Wetland City of the Ramsar Convention is not intended to confer any legal rights or legal obligations on the city or the Contracting Party. This exciting opportunity is for the City of Cape Town to be one of the first Ramsar Wetland Cities. Furthermore, it seems likely that in South Africa, Cape Town is the only City which is to be nominated.</p> <p>Criteria:</p> <ol style="list-style-type: none"> 1) Ramsar site or other significant wetlands 2) It has adopted measures for conservation of wetlands and their services 3) Restoration programmes 4) integrated spatial/land-use planning for wetlands under its jurisdiction; 5) public awareness about the values of wetlands 6) encouraged the wise use of wetlands by stakeholders through, for example, establishing wetland education/information centres 7) Established a local Committee <p>Local Ramsar Wetland City Steering Committee (WCWF):</p> <p>City of Cape Town – secretariat and chair</p> <ul style="list-style-type: none"> - Julia Wood (biodiversity) - Candice Haskins (water quality) - Mark Rountree (Councillor Herron's office) <p>ICLEI – Ulrike Irlich</p> <p>DEADP – Marlene Laros</p> <p>CapeNature – Natalie Hayward</p> <p>PAAC Chairpersons – Gordon Laing</p> <p>UCT – Jenny Day</p> <p>TMF – Kerry Maree</p> <p>DWS / WCWF – Shaddai Daniel</p> <p>“Cape Town is the most Biodiverse City in the world” – Thomas Elmqvist, leader of UN's City and Biodiversity Outlook Project.</p> <p>Things that count in favour of the City of Cape Town:</p>

No.	ITEM
	<ul style="list-style-type: none"> • Many different wetland habitat types within the City's boundaries • Unique fauna and flora • Many threatened species associated with wetlands • Active restoration efforts e.g. removal of water hyacinth at the Black River; Working for Wetlands (Cape peninsula project); biocontrol facility focusing on aquatic invaders • Education and awareness campaigns e.g. environmental education; overnight camps; visits to the biocontrol facility; World Wetlands Day activities • Other benefits of wetlands to local communities: <ul style="list-style-type: none"> ○ Creating skills and jobs ○ Volunteering opportunities ○ Recreation: connecting people with wetlands e.g. Zandvlei ○ Events e.g. Birdathon; peninsula paddle; twitchers come to sections of Strandfontein for birding ○ All of the above creates massive community involvement <p><u>Questions and answers:</u></p> <p>Q: How does this project fit into the reduction of conservation budgets? A: Not an issue at all. The case where people "lost their jobs" e.g. the EWP people at Strandfontein was not because of budget cuts, but rather that people employed by the EWP are short term contracts i.e. temporary work. In fact, in some reserves, additional posts were created.</p> <p>Q: How does this accreditation affect conservation- and non-conservation areas? A: The accreditation is just a status which promotes awareness. The benefits are long term. The status lasts for 6 years before it is relooked at again.</p> <p>Comment: Amazing work has been done to promote ease of access to such wetlands and therefore hast consequently encouraged people to come outside to the wetlands e.g. floating jetties in Zandvlei to allow easier access by wind surfers etc.</p>
5.3	<p>Berg River Wetlands: education, criminals and vandals</p> <ul style="list-style-type: none"> • John Fincham (Cape Bird Club) and Skhumbuzo Mbewu (LandCare SA) • Email: fincham04@gmail.com and skhumbuzombewu@gmail.com
	<p>The Paarl Bird Sanctuary and nearby Wellington pans are substantial wetlands that are adjacent to Mbekweni township (just over the railway line). The bird sanctuary is a prime birding area which in recent years has been avoided by local and overseas visitors as it had become a target for robberies and some tourists had even been stabbed. Despite this, monthly bird counts have been undertaken for the past 22 years without a break and the birding is superb. The Drakenstein Municipality has been very supportive and they are providing additional security at weekends, and there are plans to ring-fence the area later this year.</p> <p>In an attempt to persuade the local community to regard these wetlands and the bird sanctuary as assets which need to be protected and utilised for educational, research, tourism and recreational purposes, John Fincham and Skhumbuzo Mbewu started early in 2016 to approach all the schools in Mbekweni. Presentations were made to the teachers at two high schools and 7 primary schools and were very well received. As a result, three school visits to the works and sanctuary have already taken place. The enthusiastic response from the almost 300 pupils has been extremely.</p>

No.	ITEM
6	Closure
	The acting Chairperson encouraged further sharing of knowledge and ideas after the meeting. The chairperson reminded the Forum of the next meeting on 8 November and thanked all for attending.

Minutes drafted and compiled by Philip Frenzel.
WCWF meeting 13 September 2017: 13.09.2017

Appendix E4

NOTIFICATION OF INTENT TO DEVELOP (NID)



**NOTIFICATION
 OF
 INTENT
 TO
 DEVELOP**

Completion of this form is required by Heritage Western Cape for the initiation of all impact assessment processes under Section 38(1) & (8) of the National Heritage Resources Act (NHRA).

Whilst it is not a requirement, it may expedite processes and in particular avoid calls for additional information if certain of the information required in this form is provided by a heritage specialist/s with the necessary qualifications, skills and experience.

A. APPLICABILITY OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT (NEMA)

HWC Case Number:	DEADP Reference Number:
NOTE: A DEADP (W Cape Dept. Environment Affairs & Development Planning) reference number must be included in all NHRA Section 38(8) processes where DEADP is the decision making authority under NEMA. The effect of this requirement is that the NEMA process must be initiated with DEADP prior to the NHRA process with HWC.	
If a DEADP reference number is not entered above please check one of the following boxes:	
<input checked="" type="checkbox"/>	This application is made in terms of Section 38(8) of the NHRA and an application under NEMA has been made to the following authority: Department of Environmental Affairs (DEA)
<input type="checkbox"/>	This development will not require a NEMA application.
NOTE: Making an incorrect statement or providing incorrect information in this part of the form may result in all or part of the application having to be reconsidered by HWC in the future, or submission of a new application.	

B. BASIC DETAILS

PROPERTY DETAILS:

Name of property: Many	
Street address or location (eg: off R44): Generally away from roads but otherwise accessed by small farm and mountain tracks. See locations in attached table.	
Erf or farm number/s: Please see table attached.	Coordinates: Please see table attached. S E (A logical centre point. Format based on WGS84.)
Town or District: Neart to Cape Town, Bredasdorp, Worcester, Tulbagh and Porterville	Responsible Municipality: City of Cape Town, Cape Aghullas, Overstrand, Berg River
Extent of property: Please see table attached.	Current use: Various but generally vacant land set aside for nature conservation purposes.
Predominant land use/s of surrounding properties: Various but largely nature conservation. Sites in the Cape Town area are bordered by residential properties, while a few in the Aghullas area are in rural/agricultural contexts.	

REGISTERED OWNER OF PROPERTY:

Name Please see attached documentation. Owners are variously private, SANParks, CapeNature and City of Cape Town.
Address

Telephone	Cell	E-mail
<p>By the submission of this form and all material submitted in support of this notification (ie: 'the material'), all applicant parties acknowledge that they are aware that the material and/or parts thereof will be put to the following uses and consent to such use being made: filing as a public record; presentations to committees, etc; inclusion in databases; inclusion on and downloading from websites; distribution to committee members and other stakeholders and any other use required in terms of powers, functions, duties and responsibilities allocated to Heritage Western Cape under the terms of the National Heritage Resources Act. Should restrictions on such use apply or if it is not possible to copy or lift information from any part of the digital version of the material, the material will be returned unprocessed.</p>		
<p>I confirm that I enclose with this form four hardcopies of all material submitted together with a CD ROM containing digital versions of all of the same.</p>		

Signature of owner or authorised agent
(Agents must attach copy of power of attorney to this form.)

Date / / 20

DEVELOPMENT DETAILS:

<p>Please indicate below which of the following Sections of the National Heritage Resources Act, or other legislation has triggered the need for notification of intent to develop.</p>	
<p><input type="checkbox"/> S38(1)(a) Construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier over 300m in length.</p>	<p>S38(1)(c) Any development or activity that will change the character of a site -</p>
<p><input type="checkbox"/> S38(1)(b) Construction of a bridge or similar structure exceeding 50m in length.</p>	<p><input type="checkbox"/> (i) exceeding 5 000m² in extent;</p>
<p><input type="checkbox"/> S38(1)(d) Rezoning of a site exceeding 10 000m² in extent.</p>	<p><input type="checkbox"/> (ii) involving three or more existing erven or subdivisions thereof;</p>
<p><input checked="" type="checkbox"/> Other triggers, eg: in terms of other legislation, (ie: National Environment Management Act, etc.) Please set out details: The projects trigger a Basic Assessment process (BAR).</p>	<p><input type="checkbox"/> (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years.</p>
<p>If you have checked any of the three boxes above, describe how the proposed development will change the character of the site:</p>	
<p>If an impact assessment process has also been / will be initiated in terms of other legislation please provide the following information:</p> <p>Authority / government department (ie: consenting authority) to which information has been /will be submitted for final decision: DEA</p> <p>Present phase at which the process with that authority stands: Application phase; Draft BAR is available for public comment.</p>	

Provide a full description of the nature and extent of the proposed development or activity including its potential impacts (eg: changes in land use, envisaged timeframes, provision of additional bulk services, excavations, landscaping, total floor area, height of development, etc. etc.): See attached intervention list. The interventions vary depending on the specific desired outcome but all aim to recreate, restore or rehabilitate natural wetland features.

C. HERITAGE RESOURCES AND IMPACTS THEREUPON

Section 3 of the National Heritage Resources Act sets out the following categories of heritage resource as forming part of the national estate. Please indicate the known presence of any of these by checking the box alongside and then providing a description of each occurrence, including nature, location, size, type

Failure to provide sufficient detail or to anticipate the likely presence of heritage resources on the site may lead to a request for more detailed specialist information.

(The assistance of relevant heritage professionals is particularly relevant in completing this section.)

Provide a short history of the site and its environs (Include sources where available): The sites are variable in that some are in undeveloped mountainous areas, while others are either in rural areas where agriculture has been practiced for many years and still others are on the urban periphery or, in a few cases on the Cape Flats, within undeveloped parts of urban areas.

Please indicate which heritage resources exist on the site and in its environs, describe them and indicate the nature of any impact upon them:

<input type="checkbox"/>	<p>Places, buildings, structures and equipment of cultural significance</p> <p>Description of resource: None of the interventions will be in close proximity to any historical structures.</p> <p>Description of impact on heritage resource: No impacts expected.</p>
<input type="checkbox"/>	<p>Places to which oral traditions are attached or which are associated with living heritage</p> <p>Description of resource: n/a</p> <p>Description of impact on heritage resource: n/a</p>
<input type="checkbox"/>	<p>Historical settlements and townscapes</p> <p>Description of resource: n/a</p> <p>Description of impact on heritage resource: n/a</p>
<input checked="" type="checkbox"/>	<p>Landscapes and natural features of cultural significance</p> <p>Description of resource: Some of the interventions lie within land forming part of the Cape Floral Region World Heritage Site. The interventions are intended to have a positive impact by reducing erosion and enhancing biodiversity by stabilising wetland features.</p> <p>Description of impact on heritage resource: Minor positive impacts are expected.</p>
<input type="checkbox"/>	<p>Geological resources of scientific or cultural importance</p> <p>Description of resource: Because the interventions will all be located within riparian zones there are no bedrock outcrops involved.</p> <p>Description of impact on heritage resource: No impacts expected.</p>
<input checked="" type="checkbox"/>	<p>Archaeological resources (Including archaeological sites and material, rock art, battlefields & wrecks):</p> <p>Description of resource: There is a small possibility that isolated Stone Age artefacts might be present in many of the areas where interventions are planned. However, none of the areas looked appropriate for Stone Age settlement which generally occurs away from the immediate riparian zone. Proper archaeological sites are thus not expected within the proposed intervention areas. In the Aghullas area the chances of artefacts being found are likely the greatest and there</p>

	<p>they would generally be Early Stone Age materials. Such materials occur sporadically throughout the southern coastal plain. In other areas rare Later Stone Age artefacts might be present.</p> <p>Description of impact on heritage resource: Isolated artefacts may be moved around during the work. No significant impacts are expected.</p>
<input checked="" type="checkbox"/>	<p>Palaeontological resources (ie: fossils):</p> <p>Description of resource: The fossil sensitivity is rated variably between low and high, although this usually relates to the bedrock geology. Isolated recent fossils may be present within the sand around rivers, while fossil pollens may occur in some areas in old wetland deposits. The assessment of impacts to pollens would be difficult to accomplish. Furthermore, the proposed interventions would have a very limited impact because of their small footprints. It is not expected that bedrock will be involved at any of the locations.</p> <p>Description of impact on heritage resource: No significant impacts expected.</p>
<input type="checkbox"/>	<p>Graves and burial grounds (eg: ancestral graves, graves of victims of conflict, historical graves & cemeteries):</p> <p>Description of Resource: No graves or burial grounds were seen on aerial photography and the chances of such features occurring in riparian zones is effectively zero.</p> <p>Description of Impact on Heritage Resource: No impacts expected.</p>
<input type="checkbox"/>	<p>Other human remains:</p> <p>Description of resource: It is highly unlikely that burials would have taken place in such close proximity to rivers and wetland areas.</p> <p>Description of impact on heritage resource: No impacts expected.</p>
<input type="checkbox"/>	<p>Sites of significance relating to the history of slavery in South Africa:</p> <p>Description of resource: n/a</p> <p>Description of impact on heritage resource: n/a</p>
<input type="checkbox"/>	<p>Other heritage resources:</p> <p>Description of resource: n/a</p> <p>Description of impact on heritage resource: n/a</p>

Describe elements in the environs of the site that could be deemed to be heritage resources: as above

Description of impacts on heritage resources in the environs of the site: as above

Summary of anticipated impacts on heritage resources: No significant negative impacts are expected at any of the proposed intervention sites, but the restoration of wetlands will create a positive impact on the Cape Floral Region World Heritage Site in terms of scientific value (plant and animal habitats will be improved) and aesthetic value (appearance of the landscape).

ILLUSTRATIVE MATERIAL (This form will not be processed unless the following are included):

Attach to this form a minimum A4 sized locality plan showing the boundaries of the area affected by the proposed development, its environs, property boundaries and a scale. The plan must be of a scale and size that is appropriate to creating a clear understanding of the development.

Attach also other relevant graphic material such as maps, site plans, satellite photographs and photographs of the site and the heritage resources on it and in its environs. These are essential to the processing of this notification.

Please provide all graphic material on paper of appropriate size and on CD ROM in JPEG format. It is essential that graphic material be annotated via titles on the photographs, map names and numbers, names of files and/or provision of a numbered list describing what is visible in each image.

D. RECOMMENDATION

In your opinion do you believe that a heritage impact assessment is required? Yes No

Recommendation made by:

Name Dr Jayson Orton

Capacity Archaeologist and heritage consultant

PLEASE NOTE: No Heritage Impact Assessment should be submitted with this form or conducted until Heritage Western Cape has expressed its opinion on the need for such and the nature thereof.

E. INFORMATION TO BE PROVIDED AND STUDIES TO BE CONDUCTED AS PART OF THE HERITAGE IMPACT ASSESSMENT (HIA)

If it is recommended that an HIA is required please complete this section of the form.

DETAILS OF HERITAGE PRACTITIONERS AND SPECIALISTS INTENDING TO CONDUCT THE HIA:

1.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:
2.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:
3.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:

4.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:
5.	Name of individual:	Name of Practice:	Area of specialisation:
	Qualifications:		
	Experience:		
	Standing in heritage resource management:		
	E-mail Address:	Telephone:	Cell:
If this submission is made in terms of Section 38(8) of the National Heritage Resources Act indicate below the particulars of the principle environmental consultant on the project.			
Name of individual: Franci Gresse Name of Practice: Aurecon South Africa (Pty) Ltd Area of specialisation: Environmntal Impact Assessment			
E-mail Address: Franci.Gresse@aurecongroup.com Telephone: 021 5266022 Cell:			
Postal Address: P.O. Box 494, Cape Town, 8000			

DETAILS OF STUDIES TO BE CONDUCTED IN THE INTENDED HIA

In addition to the requirements set out in Section 38(3) of the NHRA, indicate envisaged studies:	
<input type="checkbox"/>	Heritage resource-related guidelines and policies.
<input type="checkbox"/>	Local authority planning and other laws and policies.
<input type="checkbox"/>	Details of parties, communities, etc. to be consulted.
<input type="checkbox"/>	Specialist studies, eg: archaeology, palaeontology, architecture, townscape, visual impact, etc. Provide details:
<input type="checkbox"/>	Other. Provide details:
PLEASE NOTE: Any further studies which Heritage Western Cape may resolve should be submitted must be in the form of a single, consolidated report with a single set of recommendations. Specialist studies must be incorporated in full, either as chapters of the report, or as annexures thereto.	

	Project	Wetland Name	Farm portion/erf and size	Municipality	New Intervention number	Latitude (S)	Longitude (E)	Structure Type
1	Agulhas	Voelvlei	Intersection point of Farm 207/9 269.73 ha and Farm 401 1108.13 ha	Cape Aghulas Municipality	G50C-07-201-00	34°40'35.04"	19°53'3.12"	Macmat for an experimental stretch of 100 m
2	Agulhas	Upper Ratelrivier	Farm 314/rem 2433.38 ha	Overstrand Municipality	G50A-05-211-00	34°40'19.02"	19°39'18.00"	Groynes
3	Agulhas	Bergplaas	Bergplaas 291/1 939.65 ha	Cape Aghulas Municipality	G50C-04-214-00	34°43'31.32"	19°52'0.52"	Series of rock packs / Rock pack sausages / Ecologs
4	Agulhas	Bergplaas				34° 43' 31.41"	19° 52' 0.27"	
5	Agulhas	Bergplaas				34°43'31.67"	19°51'59.35"	
6	Agulhas	Bergplaas				34°43'31.12"	19°51'59.99"	
7	Agulhas	Springfield	Intersection point of Farm 402	Cape Aghulas Municipality	G50C-03-232-00	34°42'53.29"	19°52'37.14"	Rock pack / Ecologs
8	Agulhas	Springfield				34°42'53.65"	19°52'36.94"	Rock pack / Ecologs
9	Agulhas	Upper Pietersielieskloof	Farm 202/1/rem 166.48 ha	Cape Aghulas Municipality	G50B-01-202-00	34° 32' 18.18"	19° 49' 24.24"	Geocells
10	Agulhas	Upper Pietersielieskloof	Farm 202/1/rem 166.48 ha	Cape Aghulas Municipality	G50B-01-203-00	34° 32' 18.41"	19° 49' 22.57"	Geocells
11	Agulhas	Klein Pietersielieskloof	Farm 202/10 97.43 ha	Cape Aghulas Municipality	G50B-02-201-00	34°32'58.3"	19°48'31.6"	Gabion weir(pending input from geomorphologist)
12	Agulhas	Klein Pietersielieskloof	Farm 202/10 97.43 ha	Cape Aghulas Municipality	G50B-02-202-00	34°32'58.45"	19°48'31.29"	Groynes (pending input from geomorphologist)
13	Agulhas	Klein Pietersielieskloof	Farm 202/10 97.43 ha	Cape Aghulas Municipality	G50B-02-203-00	34°33'0.58"	19°48'31.85"	Gabion weir (pending input from geomorphologist)
14	Agulhas	Klein Pietersielieskloof	Farm 202/10 97.43 ha	Cape Aghulas Municipality	G50B-02-204-00	34°33'02.8"	19°48'31.44"	Gabion weir (pending input from geomorphologist)
15	Agulhas	Breedevlei	Breedevlei 134 257.77 ha	Cape Aghulas Municipality	G50B-03-201-00	34°29'16.76"	19°45'3.95"	Series of three Gabion weirs 10 m apart downstream
16	Agulhas	Breedevlei	Breedevlei 134 257.77 ha	Cape Aghulas Municipality	G50B-03-202-00	34°29'14.68"	19°45'0.48"	Gabion weir in side-cut
17	Agulhas	Breedevlei	Breedevlei 134 257.77 ha	Cape Aghulas Municipality	G50B-03-203-00	34°29'13.60"	19°45'0.25"	Gabion weir at tributary

18	Table Mountain National Park	Silvermine	Farm 914 475.84 ha	City of Cape Town	G22A-02-201-00	34° 4'31.63"	18°24'1.25"	Drift
19	Peninsula	Kuils River	erf 979 extent unknown	City of Cape Town	G22E-07-201-00	33°50'36.19"	18°40'4.54"	Earthworks (wetland recreation)
20	Peninsula	Haasendal	Haasendal 222/62/rem 75.36 ha	City of Cape Town	G22E-05-201-00	33°54'54.74"	18°42'31.57"	Series of silt fences with reveg
21	Peninsula	Kayelitsha Wetland Park	erf 18332/rem 440.81 ha	City of Cape Town	G22E-06-201-00	34° 2'42.73"	18°41'40.83"	Gabion embankment protection structure with concrete capping and reveg.
22	Peninsula	Edith Stevens Wetland Park	Farm 609/83 4.26 ha	City of Cape Town	G22D-21-201-00	34° 0'7.54"	18°33'13.27"	Earthworks (sloping)
23	Peninsula	Zandvlei Promenade	erf 86264/rem 0.88 ha	City of Cape Town	G22D-06-201-00	34° 5'47.48"	18°28'2.83"	Earthworks (wetland recreation)
24	Table Mountain National Park	Orangekloof	erf 1782 20.00 ha	City of Cape Town	G22B-01-201-00	34° 0'36.47"	18°23'24.99"	Gabion weir?
25	Table Mountain National Park	Orangekloof	erf 1782 20.00 ha	City of Cape Town	G22B-01-202-00	34° 0'36.47"	18°23'24.99"	Gabion wall, sloping and stabilisation
26	Table Mountain National Park	Orangekloof	erf 1781 12.85 ha	City of Cape Town	G22B-01-203-00	34° 0'35.12"	18°23'23.49"	Alien clearing (bamboo)
27	Table Mountain National Park	Roodeberg	Farm 953/97 133.92 ha	City of Cape Town	G22A-03-201-00	34° 8'28.74"	18°23'10.71"	Earthworks (removal of dam wall rubble)

28	Table Mountain National Park	Roodeberg	erf 16852 65.47 ha	City of Cape Town	G22A-03-202-00	34° 8'19.54"	18°23'1.43"	Earthworks (removal of dam wall rubble)
29	West Coast	Waterval	Waterval Outspan 214/rem 293.01 ha	Witzenberg Municipality	G10E-02-201-00	33° 20' 52.75"	19° 7' 13.8"	Groynes to prevent bank erosion
30	West Coast	Fontejntjiesberg	Farm 916 245.70 ha	Witzenberg Municipality	H10H-01-201-00	33°33'29.94"	19°20'19.93"	series of silt fences, gabions, rock packs and ecologs in channel
31	West Coast	Grootwinterhoek - Site 1 (Suikerbossie stream)	Farm 194 2919.02 ha	Bergriver Municipality	G10G-01-202-00	33° 4' 23.34"	19° 6' 5.61"	series of silt fences
32	West Coast	Grootwinterhoek - Site 1 (Suikerbossie stream)	Farm 194 2919.02 ha	Bergriver Municipality	G10G-01-203-00	33° 4' 23.31"	19° 5' 58.76"	series of silt fences and ecolog
33	West Coast	Grootwinterhoek - Site 1 (Suikerbossie stream)	Farm 194 2919.02 ha	Bergriver Municipality	G10G-01-204-00	33° 4' 23.39"	19° 5' 56.03"	series of silt fences
34	West Coast	Grootwinterhoek - Site 1 (Suikerbossie stream)	Farm 194 2919.02 ha	Bergriver Municipality	G10G-01-205-00	33° 4' 23.96"	19° 5' 55.18"	silt fence
35	West Coast	Grootwinterhoek - Site 1 (Suikerbossie stream)	Farm 194 2919.02 ha	Bergriver Municipality	G10G-01-206-00	33° 4' 24.31"	19° 5' 51.42"	Site Monitoring
36	West Coast	Grootwinterhoek - Site 1 (Suikerbossie stream)	Farm 194 2919.02 ha	Bergriver Municipality	G10G-01-207-00	33° 4' 24.51"	19° 5' 49.77"	silt fence
37	West Coast	Grootwinterhoek - Site 1 (Suikerbossie stream)	Farm 194 2919.02 ha	Bergriver Municipality	G10G-01-208-00	33° 4' 24.95"	19° 5' 48.69"	series of silt fences
38	West Coast	Grootwinterhoek - Site 1 (Suikerbossie stream)	Farm 194 2919.02 ha	Bergriver Municipality	G10G-01-209-00	33° 4' 20.43"	19° 5' 40.64"	series of silt fences
39	West Coast	Grootwinterhoek - Site 2	Farm 194 2919.02 ha	Bergriver Municipality	G10G-02-201-00	33° 4' 11.02"	19° 5' 32.15"	Ecologs

40	West Coast	Grootwinterhoek - Site 3	Farm 194 2919.02 ha	Bergriver Municipality	G10G-03-201-00	33° 3' 46.13"	19° 5' 8.07"	gabion and armouflex road strips
41	West Coast	Grootwinterhoek - Site 4	Farm 194 2919.02 ha	Bergriver Municipality	G10G-04-201-00	33° 3' 13.65"	19° 4' 54.41"	gabion drift and drop inlet
42	West Coast	Grootwinterhoek - Site 5	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-05-201-00	33° 3' 9.13"	19° 4' 14.12"	series of silt fences, rock packs and ecologs in channel
43	West Coast	Grootwinterhoek - Site 5	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-05-202-00	33° 3' 7.53"	19° 4' 15.76"	series of silt fences, rock packs and ecologs in channel
44	West Coast	Grootwinterhoek - Site 5	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-05-203-00	33° 3' 7.84"	19° 4' 16.51"	series of silt fences, rock packs and ecologs in channel
45	West Coast	Grootwinterhoek - Site 5	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-05-204-00	33° 3' 7.77"	19° 4' 16.83"	ecologs
46	West Coast	Grootwinterhoek - Site 5	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-05-205-00	33° 3' 8.01"	19° 4' 16.71"	series of silt fences
47	West Coast	Grootwinterhoek - Site 5	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-05-206-00	33° 3' 8.29"	19° 4' 17.65"	series of silt fences and ecologs in channel
48	West Coast	Grootwinterhoek - Site 6	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-06-201-00	33° 3' 15.20"	19° 4' 9.30"	site monitoring
49	West Coast	Grootwinterhoek - Site 7	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-07-201-00	33° 3' 3.84"	19° 4' 5.2"	rock pack
50	West Coast	Grootwinterhoek - Site 7	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-07-202-00	33° 3' 3.78"	19° 4' 5.45"	silt fence
51	West Coast	Grootwinterhoek - Site 7	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-07-203-00	33° 3' 3.68"	19° 4' 5.66"	silt fence
52	West Coast	Grootwinterhoek - Site 7	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-07-204-00	33° 3' 3.28"	19° 4' 7.95"	silt fence
53	West Coast	Grootwinterhoek - Site 7	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-07-205-00	33° 3' 3.43"	19° 4' 8.3"	silt fence
54	West Coast	Grootwinterhoek - Site 7	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-07-206-00	33° 3' 3.46"	19° 4' 8.99"	gabion weir
55	West Coast	Grootwinterhoek - Site 7	Driebosch 17/3 763.82 ha	Bergriver Municipality	G10G-07-207-00	33° 3' 3.69"	19° 4' 9.42"	series of silt fences and rock pack

56	West Coast	Grootwinterhoek - Site 8	Farm 195/rem 2531.24 ha	Bergriver Municipality	G10G-08-201-00	33° 3' 3.8"	19° 3' 38.44"	site monitoring
57	West Coast	Grootwinterhoek - Site 9	Farm 195/rem 2531.24 ha	Bergriver Municipality	G10G-09-201-00	33° 2' 56.95"	19° 3' 28.11"	Series of silt fences
58	West Coast	Grootwinterhoek - Site 9	Farm 195/rem 2531.24 ha	Bergriver Municipality	G10G-09-202-00	33° 2' 59.63"	19° 3' 31.28"	Series of silt fences in road (conceptual)
59	West Coast	Grootwinterhoek - Site 10	Farm 195/rem 2531.24 ha	Bergriver Municipality	G10G-10-201-00	33° 1' 46.97"	19° 3' 9.2"	Earth filled geocell chute
60	West Coast	Grootwinterhoek - Site 11	Farm 195/rem 2531.24 ha	Bergriver Municipality	G10H-01-201-00	33° 1' 12.77"	19° 3' 6.67"	Earth filled geocell chute
61	West Coast	Grootwinterhoek - Site 12	Farm 189/6 907.14 ha	Bergriver Municipality	G10G-11-201-00	32° 59' 50.79"	19° 3' 33.11"	gabion weir

New / Maintenance	Context and heritage resources	Palaeontological sensitivity	Impacts would be of very low significance.
New	Eroding bank of vlei. Isolated stone artefacts are possible, most likely would be ESA.	High	No significant impacts expected. No bedrock would be affected and only isolated recent fossils trapped in the surface sands may be affected.
New	Eroding banks of stream/wetland. Isolated stone artefacts are possible, most likely would be ESA.	High	No significant impacts expected. No bedrock would be affected and only isolated recent fossils trapped in the surface sands may be affected.
New	Eroding banks of stream/wetland. Isolated stone artefacts are possible, most likely would be ESA.	High	No significant impacts expected. No bedrock would be affected and only isolated recent fossils trapped in the surface sands may be affected.
New			
New			
New			
New	Eroding riverbank on sandy floodplain. Small chance of isolated stone artefacts, with ESA material most likely.	High	No significant impacts expected. Bedrock will not be affected so only isolated recent fossils trapped in the sand
New			
New	Eroding riverbank on sandy floodplain. Small chance of isolated stone artefacts, with ESA material most likely.	High	No significant impacts expected. Bedrock will not be affected so only isolated recent fossils trapped in the sand may be exposed.
New			
New	Eroding riverbank on sandy floodplain. Small chance of isolated stone artefacts, with ESA material most likely.	Low	No significant impacts expected.
New			
New			
New			
New	Eroding riverbank on sandy floodplain. Small chance of isolated stone artefacts, with ESA material most likely.	Low	No significant impacts expected.
New			
New			

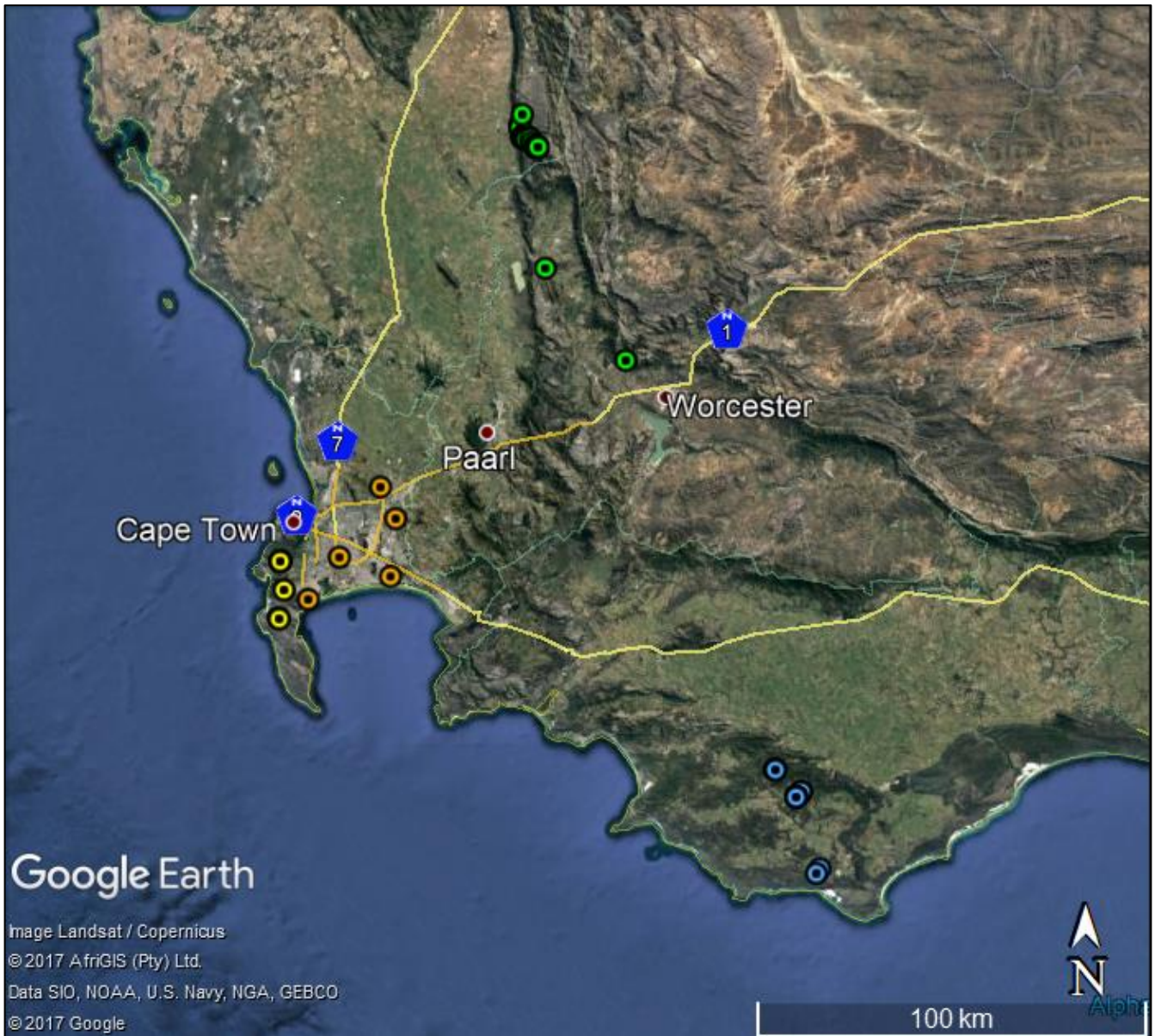
New	Existing damaged concrete pipe culvert to be replaced in river channel. No heritage resources expected.	High.	No significant impacts expected. Bedrock will not be affected so palaeo impacts will be restricted to possible isolated recent fossils in the river sand.
New	In Kuils River channel/degraded wetland. No heritage resources expected.	Low	No significant impacts expected.
New	Within existing degraded wetland area. Small possibility of isolated stone artefacts.	Low	No significant impacts expected.
New	Within existing wetland area. This whole area was badly impacted during the original development of Khayelitsha. Fossil pollens and possibly bones may be present in deeper sediments within the wetland but are likely to be unfeasible to recover.	Moderate	No significant impacts expected. The wetland deposits are likely already too badly impacted to still be sensitive.
New	Within existing wetland. No heritage resources expected.	Low	No significant impacts expected.
New	Within existing degraded wetland. Small possibility of isolated stone artefacts (others are known from the Lakeside area) and fossil pollen may be present within the deeper sediments.	Low-Medium	No significant impacts expected. The area is likely to be quite disturbed and recovery of fossil pollen (if present) is not likely to be feasible.
New	In lower part of Orange Kloof that was once dense forest and bush. No heritage resources expected, although the kloof in general has significance from the early history of Hout Bay when the valley was a source of wood for the fledgling Cape Colony.	Moderate	No significant impacts expected. Bedrock will not be affected so palaeo impacts will be restricted to possible isolated recent fossils in the sand.
New	In lower part of Orange Kloof that was once dense forest and bush. No heritage resources expected, although the kloof in general has significance from the early history of Hout Bay when the valley was a source of wood for the fledgling Cape Colony.	Moderate	No significant impacts expected. Bedrock will not be affected so palaeo impacts will be restricted to possible isolated recent fossils in the sand.
New	In lower part of Orange Kloof that was once dense forest and bush. No heritage resources expected, although the kloof in general has significance from the early history of Hout Bay when the valley was a source of wood for the fledgling Cape Colony.	Moderate	No significant impacts expected from vegetation clearing. Bedrock will not be affected so palaeo impacts will be restricted to possible isolated recent fossils in the sand.
New	In old Solole Game Reserve above Capri. Modern dam. No heritage resources expected.	Low	No significant impacts expected.

New	In old Solole Game Reserve above Capri. Modern dam. No heritage resources expected.	High	No significant impacts expected. Bedrock will not be affected so there will be no palaeo impacts.
New	Undercut riverbank. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Erosion gully on lower slopes of mountain just upslope of river. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, surface erosion present. Some large trees remaining from earlier agricultural activities nearby. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, surface erosion present. Some large trees remaining from earlier agricultural activities nearby. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
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New	Sandy mountain flats, surface erosion present. Some large trees remaining from earlier agricultural activities nearby. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, surface erosion present at vehicle track. Some large trees remaining from earlier agricultural activities nearby and a few buildings and/or ruins in the vicinity. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.

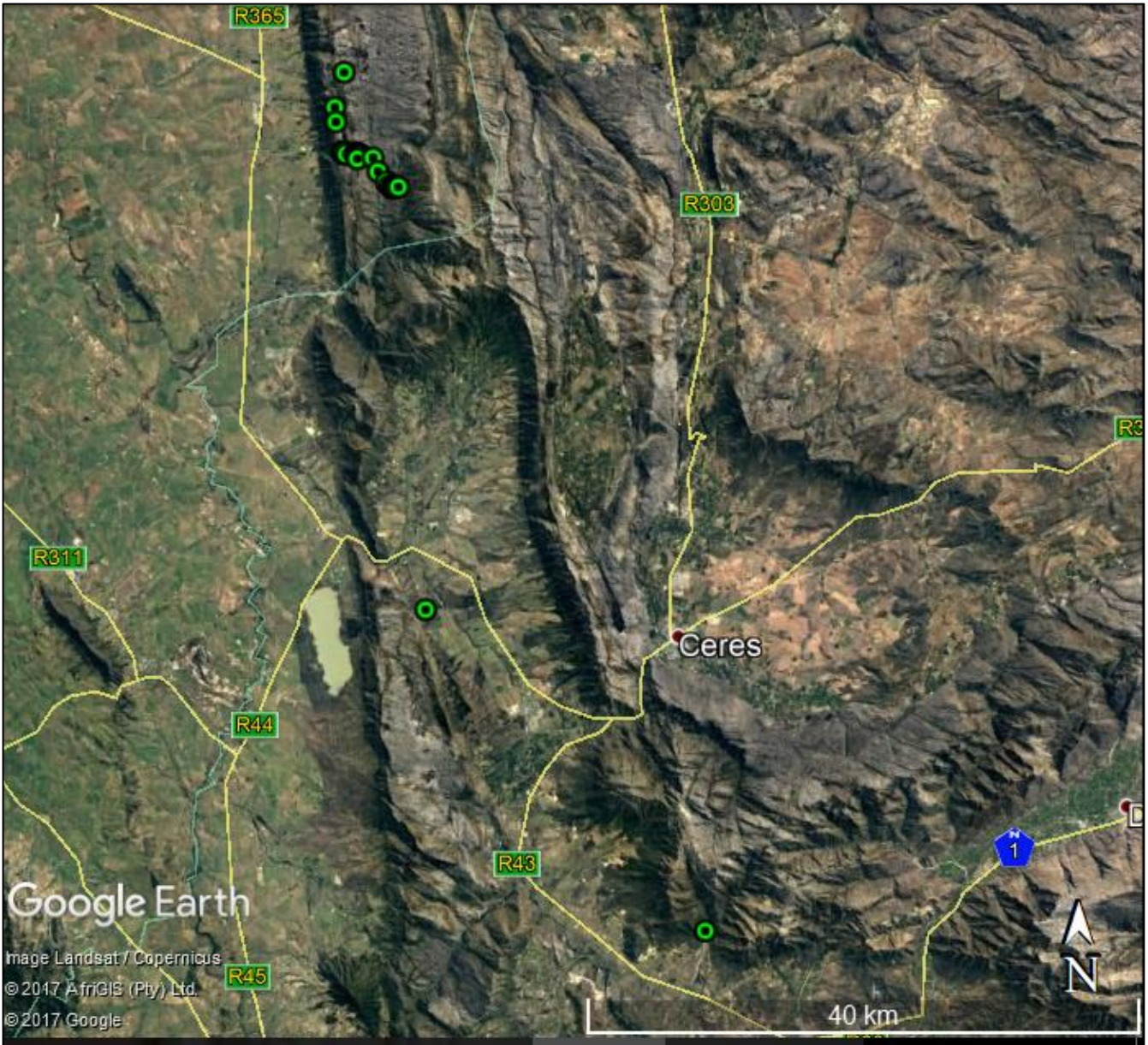
New	Sandy mountain flats, surface erosion present at vehicle track. Some large trees remaining from earlier agricultural activities nearby and a few buildings and/or ruins in the vicinity. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion at river crossing on vehicle track. Some large trees remaining from earlier agricultural activities nearby and a few buildings and/or ruins in the vicinity. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion at river crossing on vehicle track. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion at river crossing on vehicle track. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
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New	Sandy mountain flats, erosion at river crossing on vehicle track. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion at river crossing on vehicle track. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion along river. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion along river. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion along river. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion along river. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion along river. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion at river crossing on vehicle track. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion along river. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.
New	Sandy mountain flats, erosion along river. Small chance of isolated Stone Age artefacts.	Low	No significant impacts expected.

New	Stream bank erosion in shallow valley. Small chance of isolated stone artefacts.	Very high	No significant impacts expected. Bedrock will not be affected thus palaeo impacts will be low with only rare isolated Holocene fossils possibly present in the surrounding sand.
New	Stream bank erosion in shallow valley. Small chance of isolated stone artefacts.	High	No significant impacts expected. Bedrock will not be affected thus palaeo impacts will be low with only rare isolated Holocene fossils possibly present in the surrounding sand.
New	Stream bank erosion in shallow valley. Small chance of isolated stone artefacts.	High	No significant impacts expected. Bedrock will not be affected thus palaeo impacts will be low with only rare isolated Holocene fossils possibly present in the surrounding sand.
New	Stream bank erosion on sandy mountain flats. Small chance of isolated stone artefacts.	High	No significant impacts expected. Bedrock will not be affected thus palaeo impacts will be low with only rare isolated Holocene fossils possibly present in the surrounding sand.
New	Stream bank erosion on sandy mountain flats. Small chance of isolated stone artefacts.	High	No significant impacts expected. Bedrock will not be affected thus palaeo impacts will be low with only rare isolated Holocene fossils possibly present in the surrounding sand.
New	Stream bank erosion on sandy mountain flats. Small chance of isolated stone artefacts.	High	No significant impacts expected. Bedrock will not be affected thus palaeo impacts will be low with only rare isolated Holocene fossils possibly present in the surrounding sand.

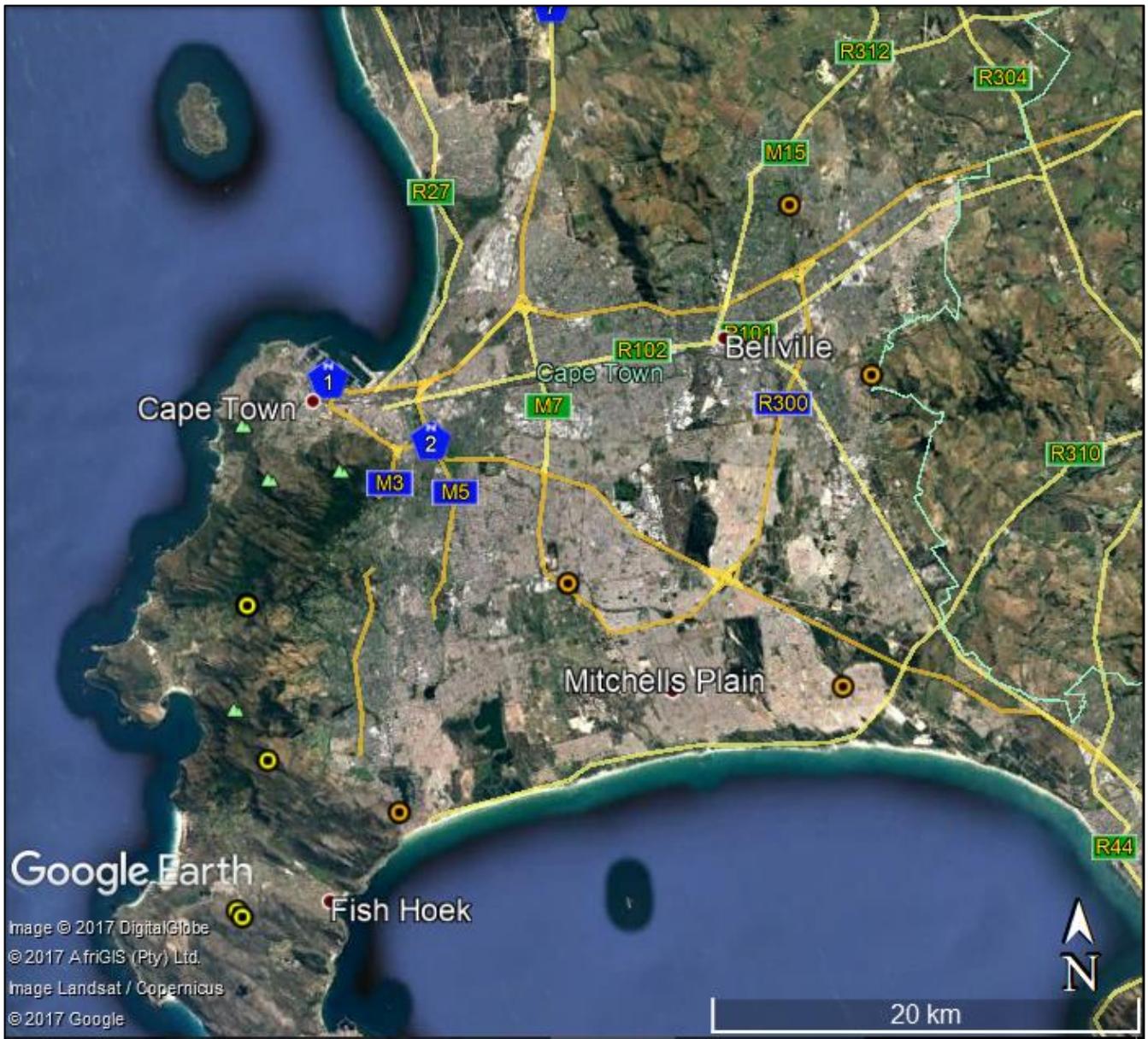
NID supporting document: Working for Wetlands 2017 interventions



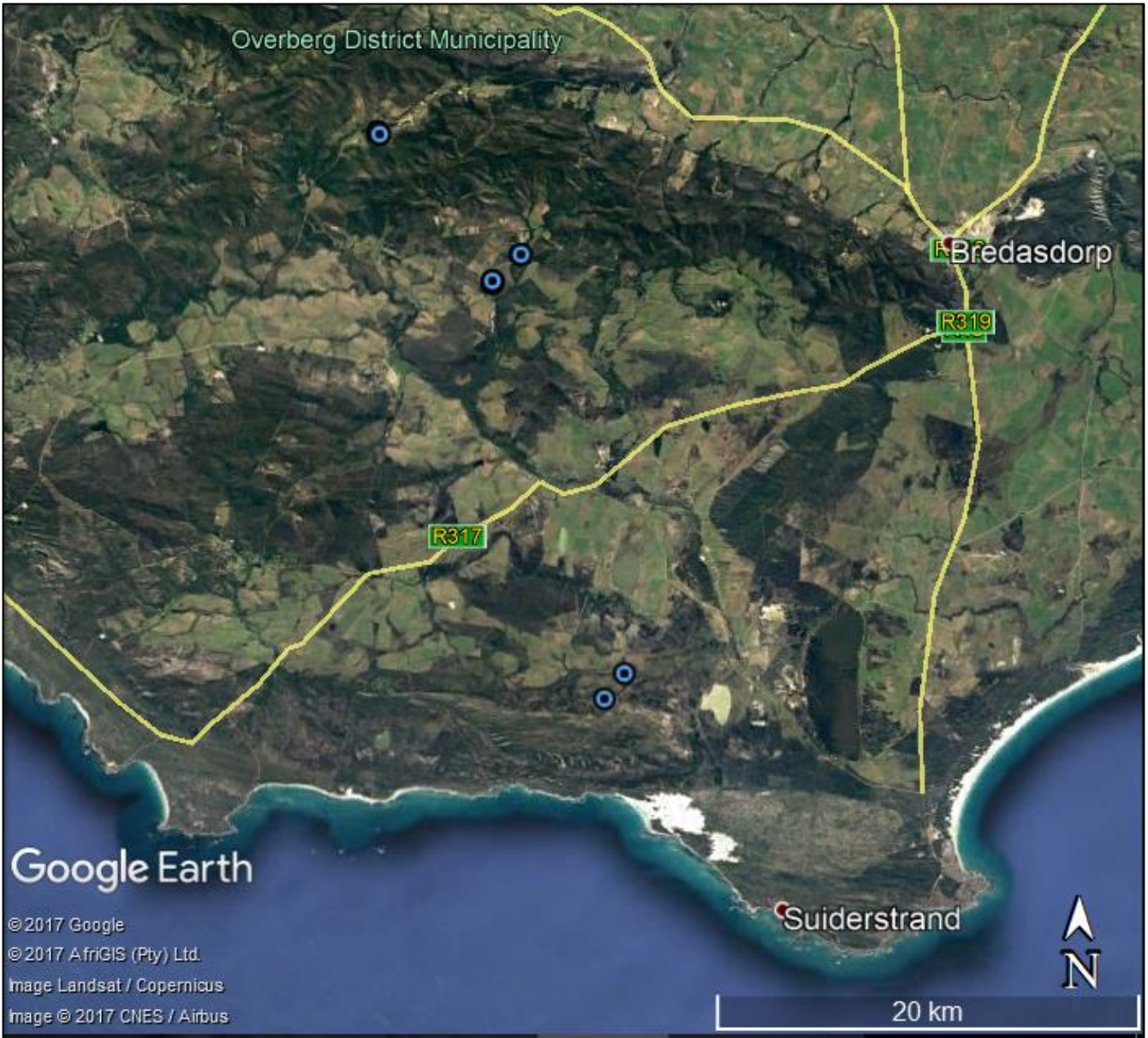
Aerial view of Western Cape showing general areas in which interventions lie. Green symbols show the West Coast cluster. Yellow symbols are the Table Mountain National Park. Orange are the Peninsula cluster. Blue are the Aghulas cluster. See enlargements below.



Map showing the West Coast cluster of interventions (green symbols).

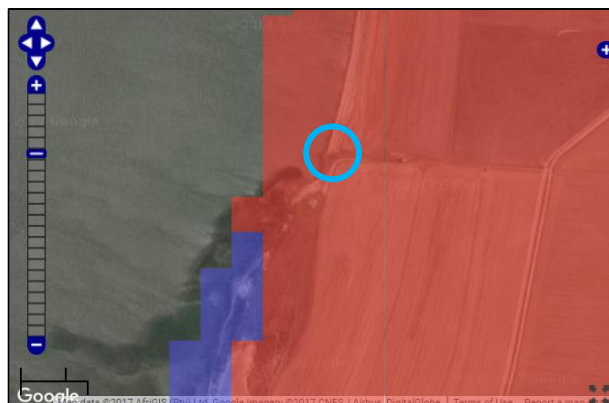
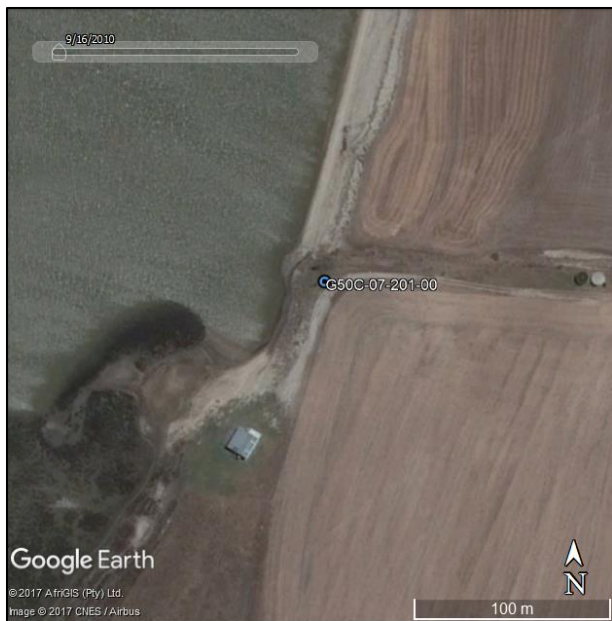


Map showing the Table Mountain and Peninsula clusters of interventions (yellow and orange symbols respectively).

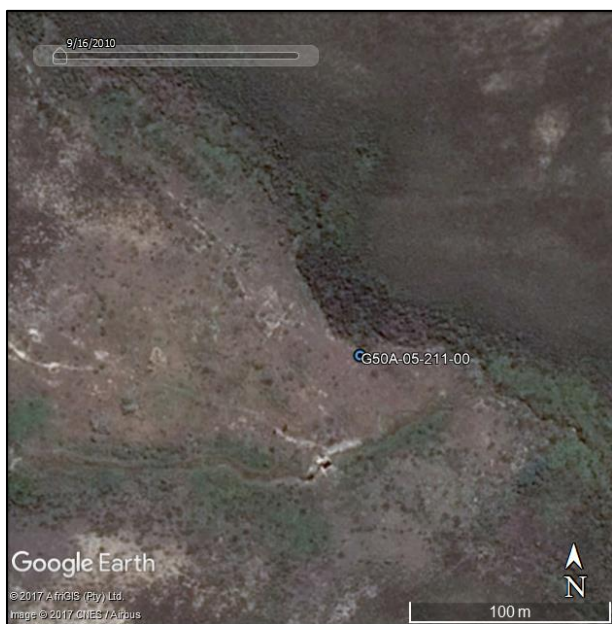


Map showing the Aghulas cluster of interventions (blue symbols).

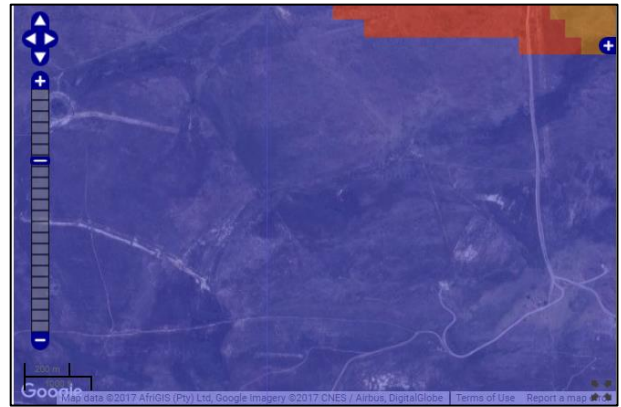
Aghulas cluster – aerial views and palaeontological sensitivity



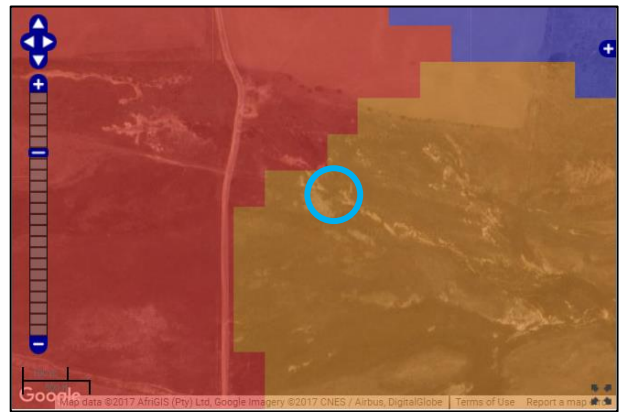
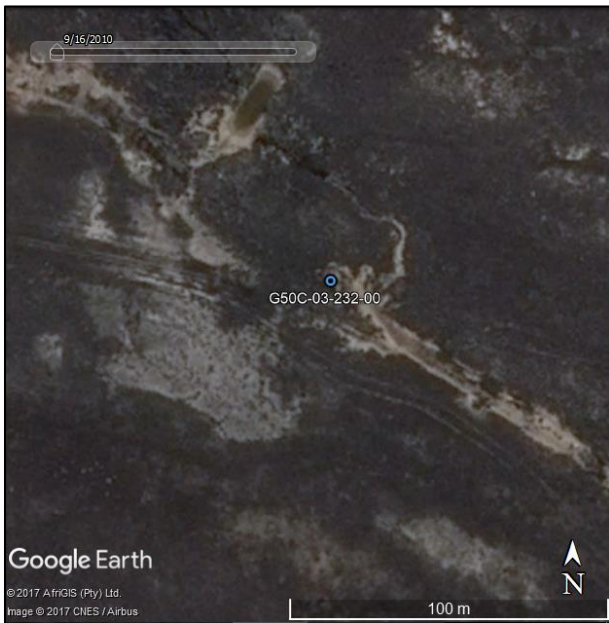
1. G50C-07-201-00



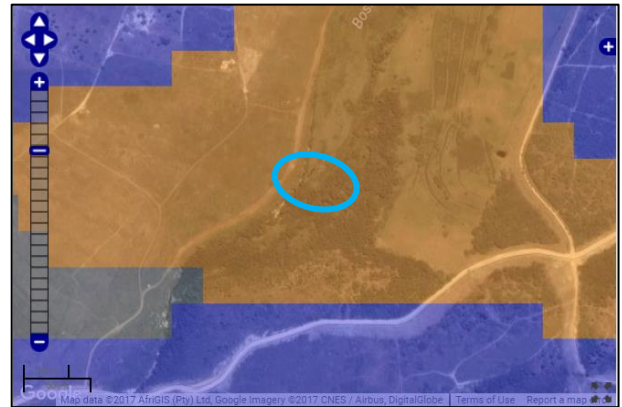
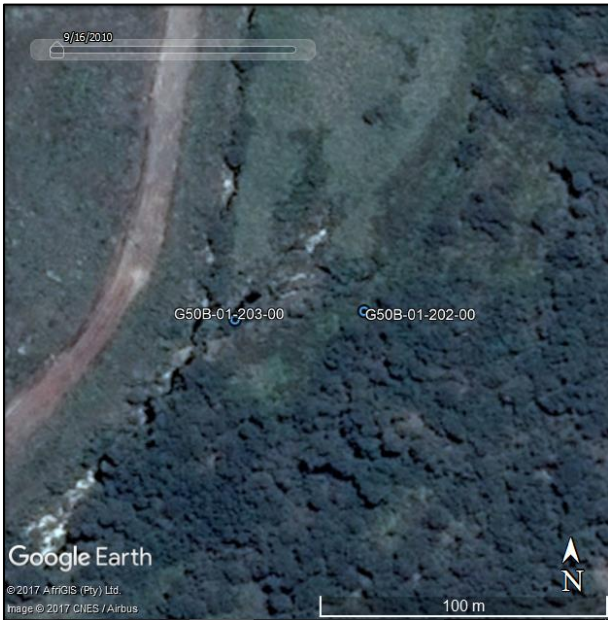
2. G50A-05-211-00



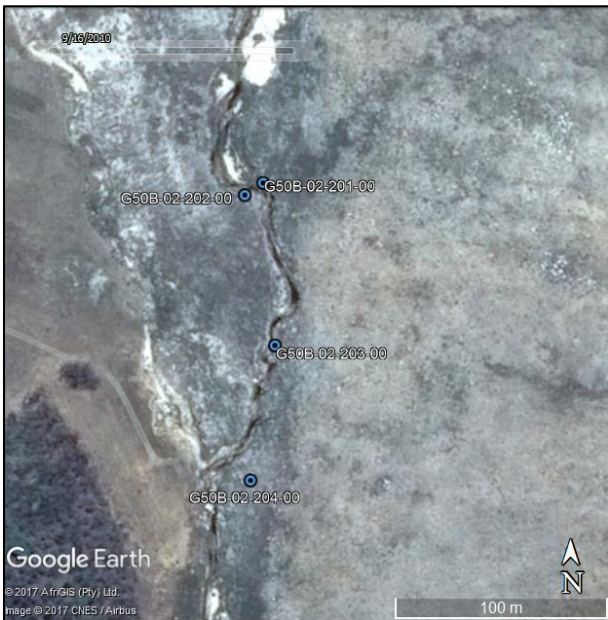
3, 4, 5 & 6. G50C-04-214-00



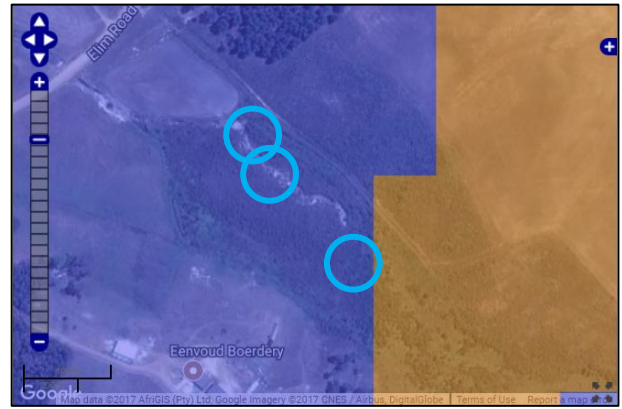
7. & 8. G50C-03-232-00



- 9. G50B-01-202-00
- 10. G50B-01-203-00



- 11. G50B-02-201-00
- 12. G50B-02-202-00
- 13. G50B-02-203-00
- 14. G50B-02-204-00



- 15. G50B-03-201-00
- 16. G50B-03-202-00
- 17. G50B-03-203-00

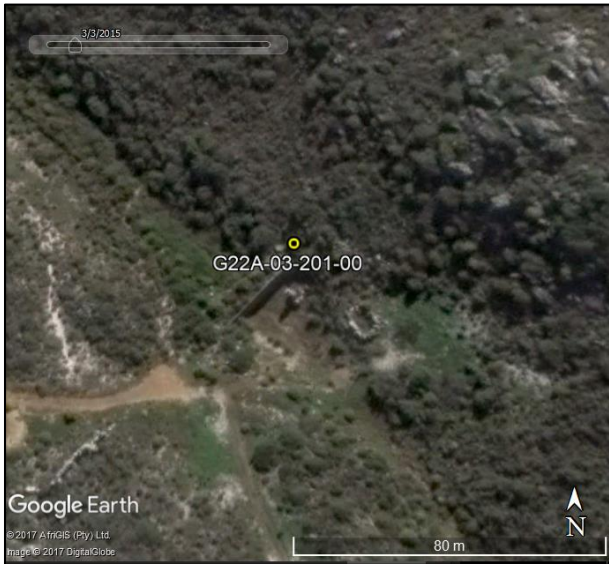
Table Mountain National Park – aerial views and palaeontological sensitivity



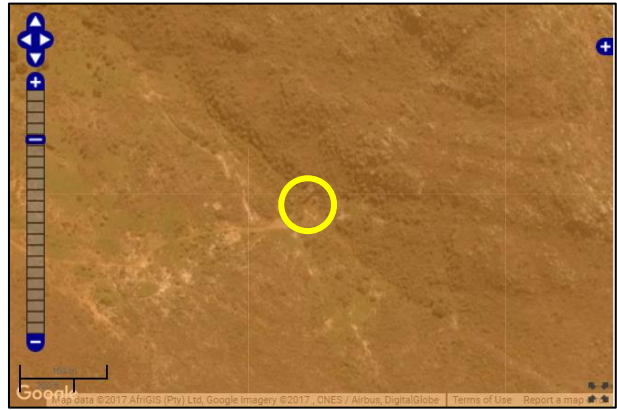
18. G22A-02-201-00



24. G22B-01-201-00
25. G22B-01-202-00
26. G22B-01-203-00



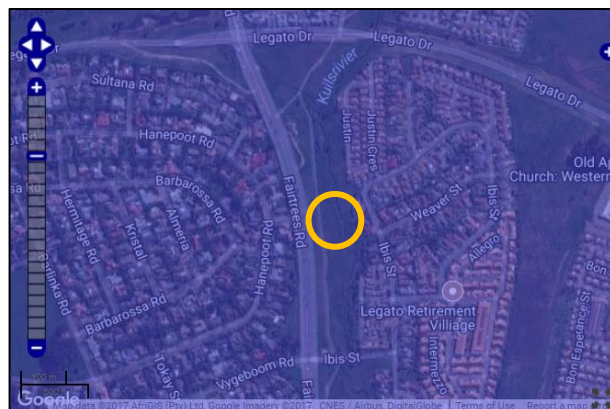
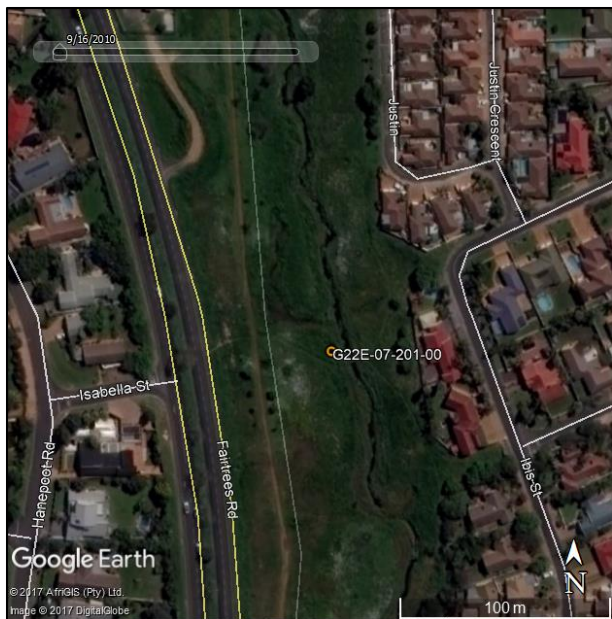
27. G22A-03-201-00



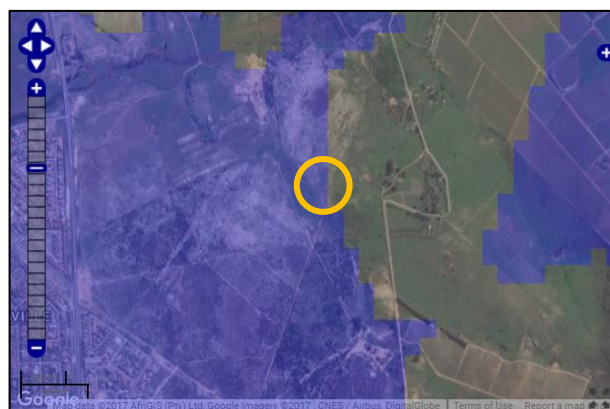
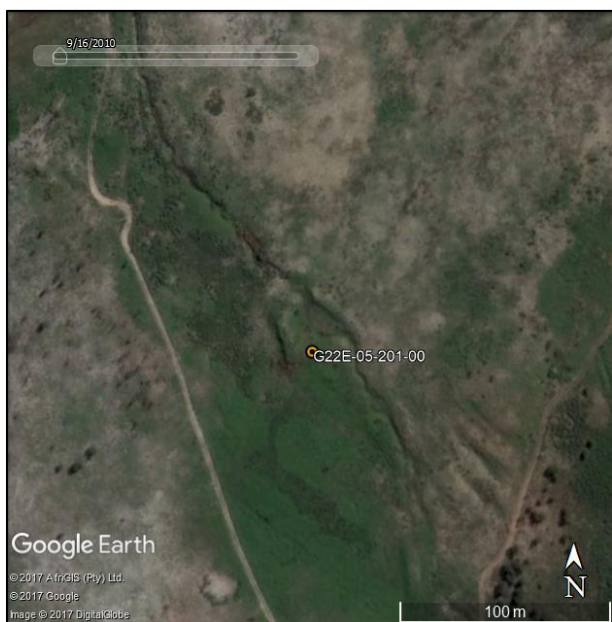
28. G22A-03-202-00



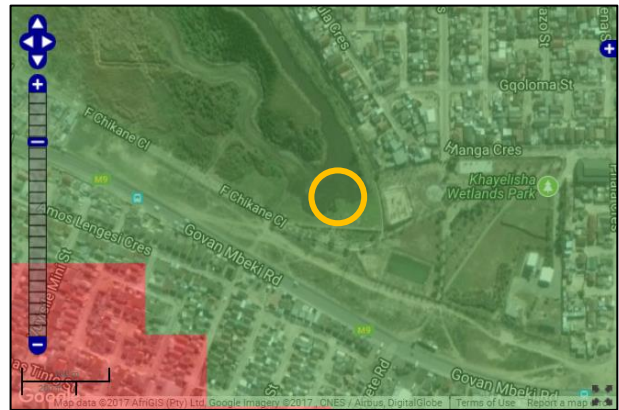
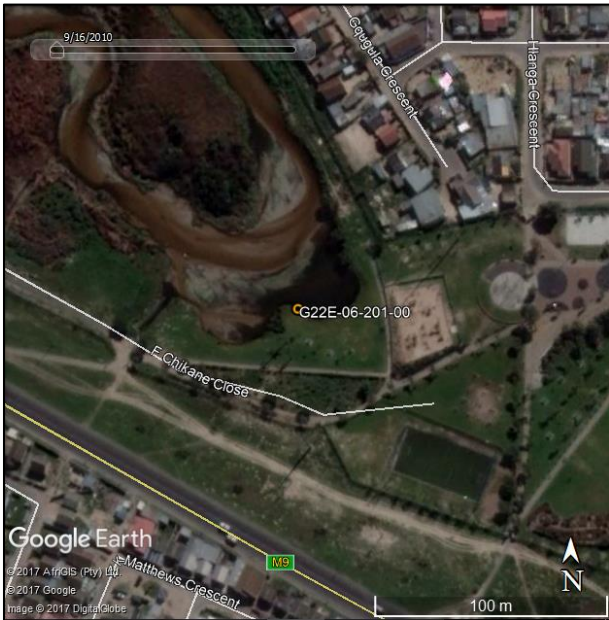
Peninsula cluster – aerial views and palaeontological sensitivity



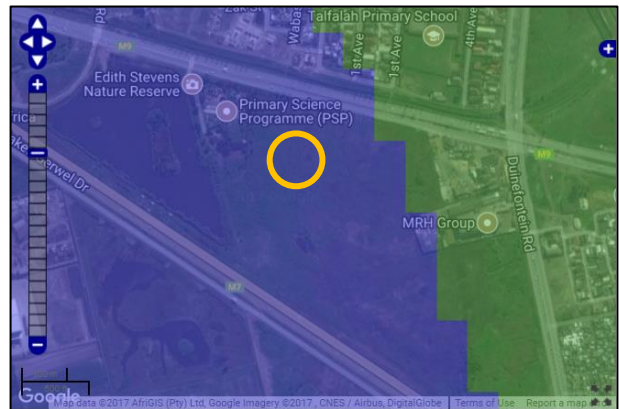
19. G22E-07-201-00



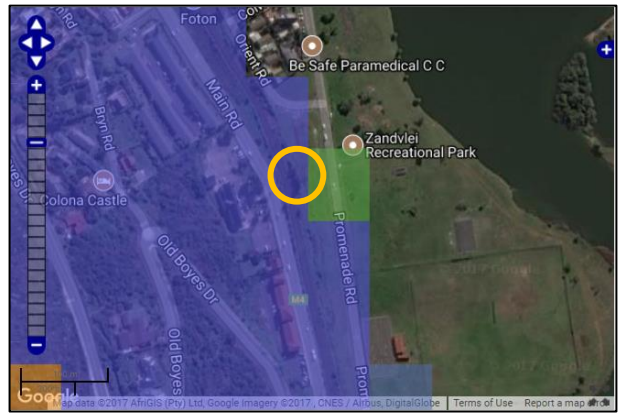
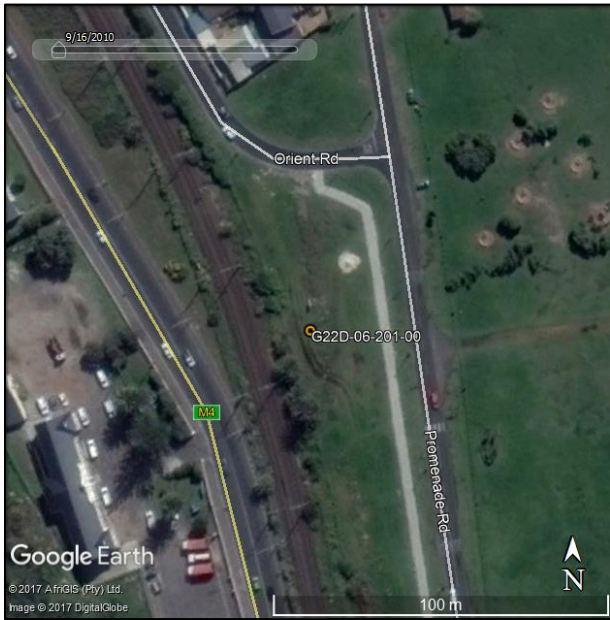
20. G22E-05-201-00



21. G22E-06-201-00

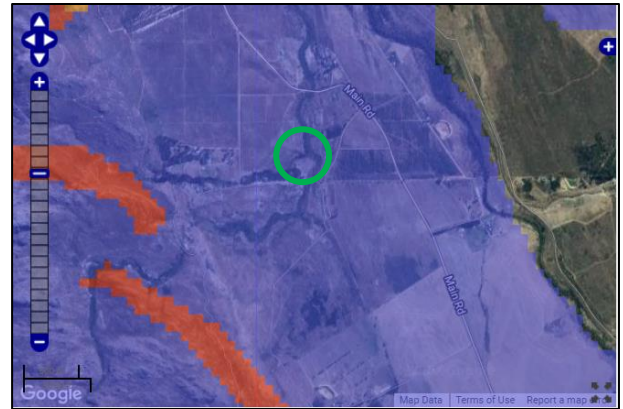


22. G22D-21-201-00



23. G22D-06-201-00

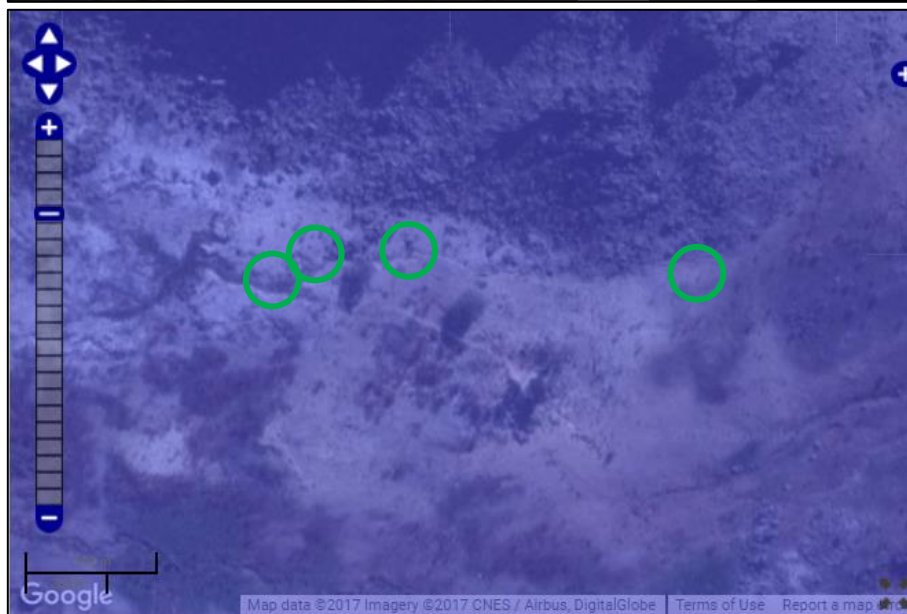
West Coast cluster – aerial views and palaeontological sensitivity



29. G10E-02-201-00



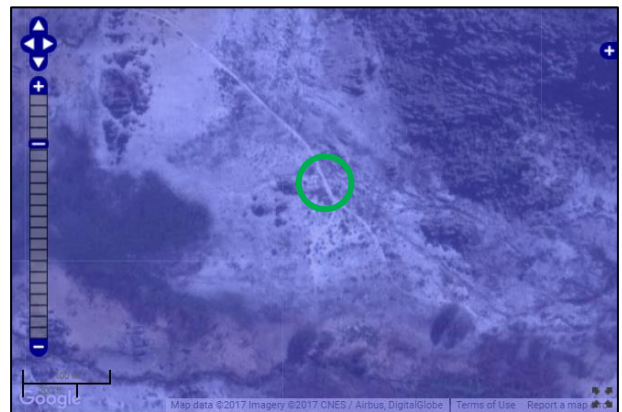
30. H10H-01-201-00



- 31. G10G-01-202-00
- 32. G10G-01-203-00
- 33. G10G-01-204-00
- 34. G10G-01-205-00



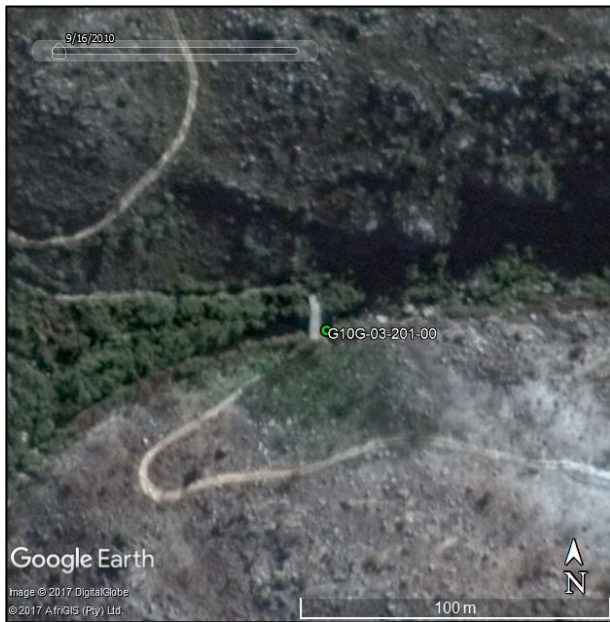
- 35. G10G-01-206-00
- 36. G10G-01-207-00
- 37. G10G-01-208-00



- 38. G10G-01-209-00

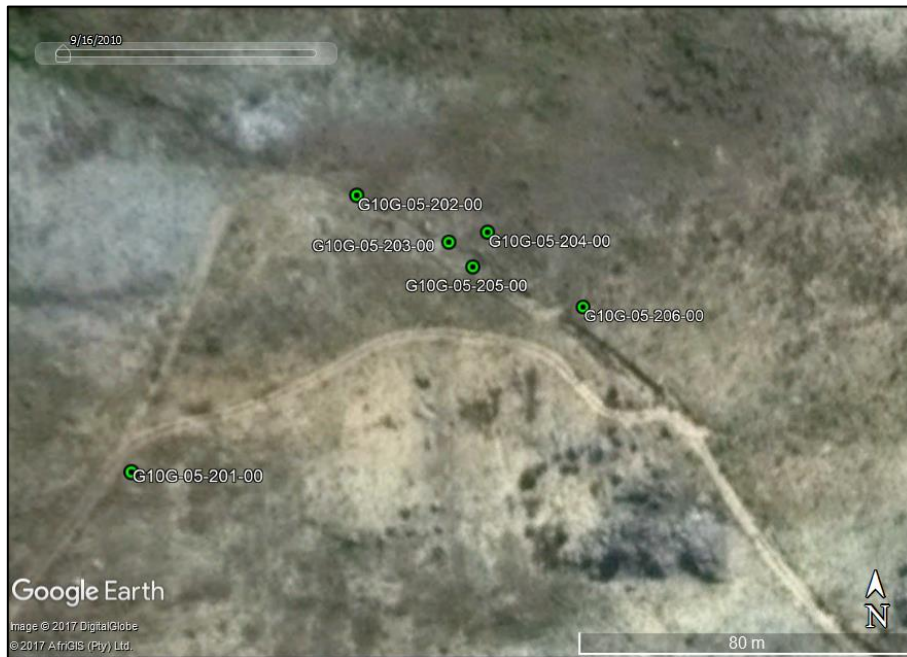


39. G10G-02-201-00

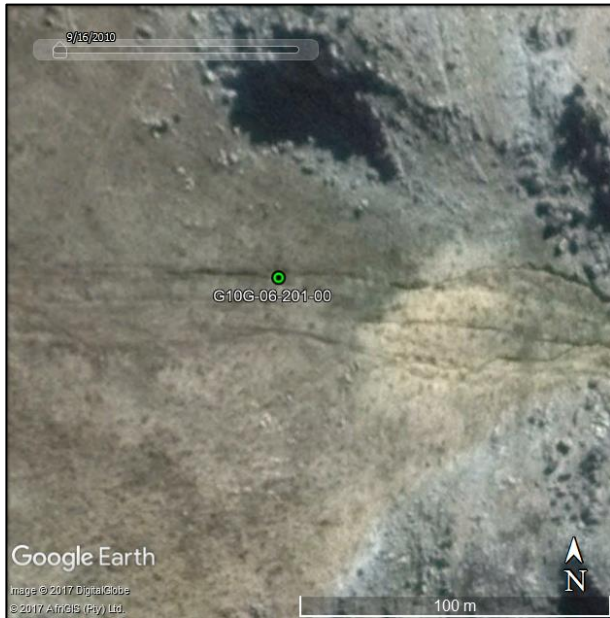


41. G10G-04-201-00





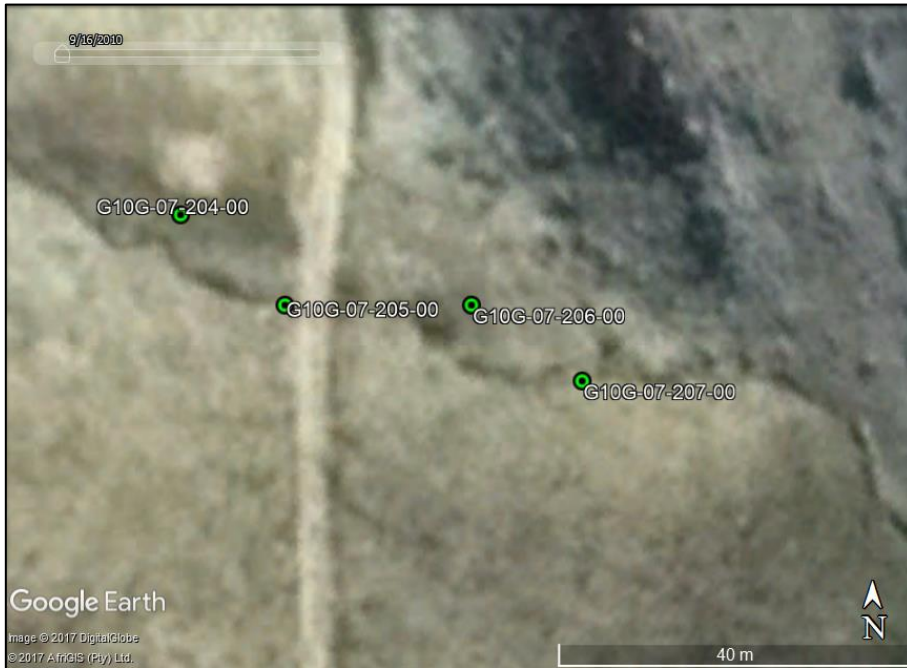
- 42. G10G-05-201-00
- 43. G10G-05-202-00
- 44. G10G-05-203-00
- 45. G10G-05-204-00
- 46. G10G-05-205-00
- 47. G10G-05-206-00



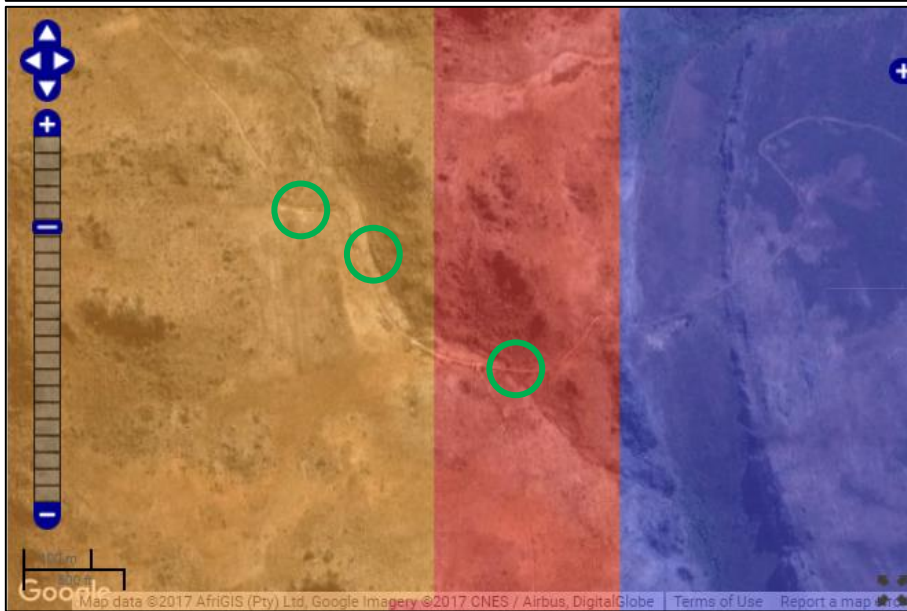
48. G10G-06-201-00



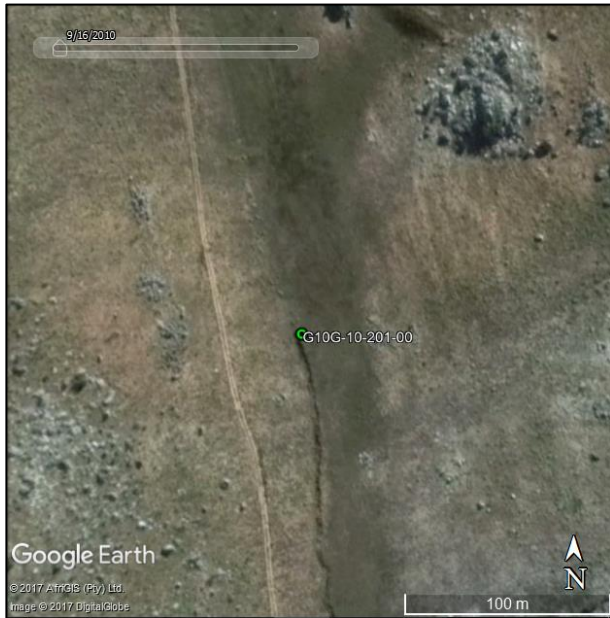
- 49. G10G-07-201-00
- 50. G10G-07-202-00
- 51. G10G-07-203-00



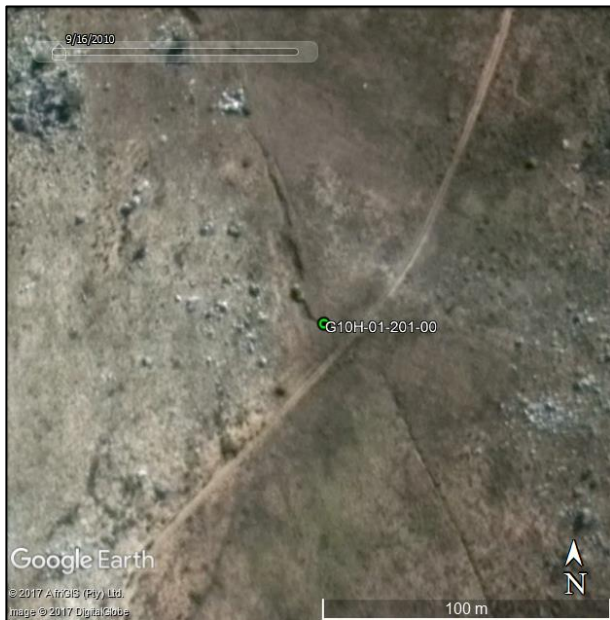
- 52. G10G-07-204-00
- 53. G10G-07-205-00
- 54. G10G-07-206-00
- 55. G10G-07-207-00



- 56. G10G-08-201-00
- 57. G10G-09-201-00
- 58. G10G-09-202-00

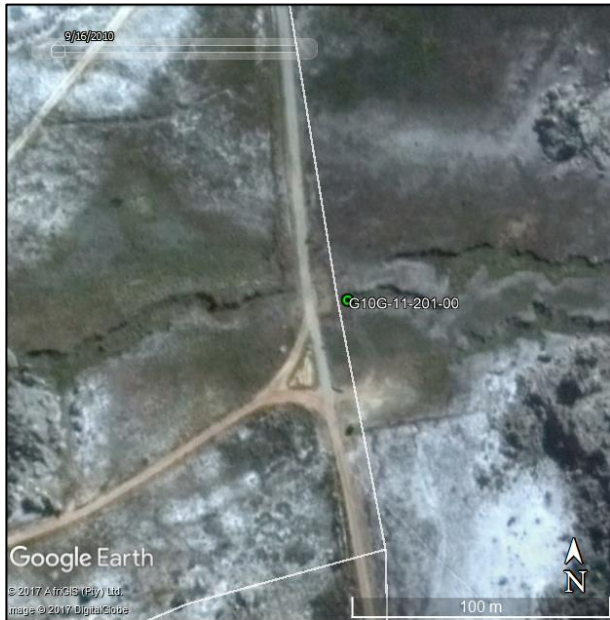


59. G10G-10-201-00



60. G10H-01-201-00





61. G10G-11-201-00