

# APPENDIX 2

## Abbreviations and Acronyms

**APPENDIX 2: ABBREVIATIONS AND ACRONYMS**

<b>Acronym</b>	<b>Explanation</b>
ADE	Aquifer Dependent Ecosystem
AGA	Astronomy Geographic Advantage Act
AIDS	Acquired immune deficiency syndrome
AQ	Air quality
ARC	Agricultural Research Council
ATV	All-terrain vehicle
AU	Astronomical Unit
BAU	'Business-as-usual'
BCF	Billion cubic feet
BGG	Burial Grounds and Graves
BOD	Burden of Disease
BPG	Best Practice Guideline
Bq/L	Becquerel per litre
BTEX	Benzene, toluene, ethylbenzene, and xylene
CARA	Conservation of Agricultural Resources Act
CBA	Critical Biodiversity Area
CBD	Convention on Biological Diversity
CBER	Centre for Business and Economic Research
CCGT	Combined Cycle Gas Turbine
CCS	carbon capture and storage
CEAM	Cumulative Effects Assessment and Management
CFB	Cape Fold Belt
CGE	Computable general equilibrium
CGS	Council for Geoscience
CH <sub>4</sub>	Methane
CI	Conservation Index
CIMERA	Centre of Excellence for Integrated Mineral and Energy Resource Analysis (a DST - NRF facility)
CISPR	Comité International Spécial des Perturbations Radioélectriques
cm	centimetre
cm <sup>3</sup> /kg	cubic centimetre per kilogram
CO	Carbon monoxide
CO <sub>2</sub>	Carbon dioxide
COC	Chain of custody
CRG	Community Reference Group
CSIR	Council for Scientific and Industrial Research
CSR	Corporate social responsibility
CTL	Coal-to-Liquid
DALY	Disability Adjusted Life Year
dB	Decibel
dBA	A-weighted decibel
DEA	Department of Environmental Affairs
DI	Degradation Index
DM	District Municipality
DMR	Department of Minerals and Energy

<b>Acronym</b>	<b>Explanation</b>
DMR	Department of Mineral Resources
DO	Dissolved Oxygen
DoE	Department of Energy
DPME	Department of Performance Monitoring and Evaluation
DST	Department of Science and Technology
DTI	Department of Trade and Industry
DWA	Department of Water Affairs
DWAF	Department of Water Affairs and Forestry
DWS	Department of Water and Sanitation
E&P	Exploration & Production
EA	Environmental Authorisation
EC	electrical conductivity
ECO	Environmental Control Officer
ECPHRA	Eastern Cape Provincial Heritage Resources Authority
EDC	Endocrine disruptor chemical
EGS	Enhanced Geothermal System
EIA	Environmental Impact Assessment
EMC	Electromagnetic compatibility
EMI	Electromagnetic interference
EMP	Environmental Management Plan
EMPr	Environmental Management Programme
EPA	Environmental Protection Agency
EPWP	Expanded Public Works Programme
ESA	Early Stone Age
ESA	Ecological Support Area
EUR	estimated ultimate recovery
FAO	Food and Agriculture Organisation
FEPA	Freshwater Ecosystem Priority Area
FOD	First Order Draft
FOD	First Order Draft
FRAI	Fish Response Assessment Index
ft	Feet
g	gram
GA	General Authorization
GAI	Geomorphology Assessment Index
GCCA	Generation Capacity Connection Assessment
GCM	Global Climate Model
GDP	Gross Domestic Product
GE	Great Escarpment
GHG	Greenhouse Gas
GHz	Gigahertz
GJ	Gigajoule
GRAII	Groundwater Resource Assessment II
GSM	Global System for Mobile communication
GTL	Gas-to-Liquid
GTP	Gas-to-Power

<b>Acronym</b>	<b>Explanation</b>
GUMP	Gas Utilisation Master Plan
GVA	Gross value added
GW	Gigawatt
GWh	Gigawatt hour
GWP	Global warming potential
H	High
H <sub>2</sub> S	Hydrogen sulfide
ha	hectare
HAI	Hydrology driver assessment index
HC	Hydrocarbon
HCl	Hydrochloric acid
HCS	Hazardous Chemical Substance
HDI	Human Development Index
HI	Hydrological index
HIA	Heritage impact assessment
HIV	Human immunodeficiency virus
HWC	Heritage Western Cape
I	Intensity
IARC	International Agency for Research on Cancer
ICT	Information and communications technology
IDP	Integrated Development Plan
IDP	Intensity Data Point
IEP	Integrated Energy Plan
IFC	International Finance Corporation
IGS	Institute for Groundwater Studies
IHI	Index of Habitat Integrity Method
INDC	Intended Nationally Determined Contribution
I-O	Input-Output
IPAP	Industrial Policy Action Plan
IPP	Independent Power Producer
IRP	Integrated Resources Plan
ISWG	Induced Seismicity Working Group
ITU	International Telecommunications Union
IUCN	International Union for Conservation of Nature
KARIN	Karoo research initiative
kg	kilogram
kg/t	kilogram per ton
km	kilometre
km <sup>2</sup>	square kilometre
kN	kiloNewton
kW	kiloWatt
L	Low or litre
L/d	litre per day
L/s	litre per second
LADA	Land Degradation Assessment in Drylands
LCA	Life-cycle assessment

<b>Acronym</b>	<b>Explanation</b>
LED	Light-Emitting Diode
LM	Local Municipality
LNG	Liquefied Natural Gas
LPG	liquid petroleum gas
LSA	Late Stone Age
LSRWUA	Lower Sundays River Water User Association
LSU	large stock unit
LUPO	Land Use Planning Ordinance
LWD	logging while drilling
M	Medium
M	Magnitude
m	metre
m <sup>3</sup>	cubic metre
m <sup>3</sup> /a	cubic metre per annum
m <sup>3</sup> /d	cubic metre per day
m <sup>3</sup> /m	cubic metre per month
MAE	mean annual evaporation
MAP	mean annual precipitation
MAR	mean annual runoff
MCDA	Multiple Criteria Decision Analysis
mg	milligram
mg/L	milligram per litre
MHz	Megahertz
MIG	Municipality Infrastructure Grant
MIRAI	Macro-invertebrate Response Assessment Index
mm	millimetre
M <sub>max</sub>	Maximum magnitude
MMBTu	Million British Thermal Units
MMI	Modified Mercalli Intensity
Mscf	Million standard cubic feet
MOOC	Massive Open On-line Course
MPa	MegaPascal
MPRDA	Mineral and Petroleum Resources Development Act
mS/m	milliSiemens per metre
MSA	Middle Stone Age
MTS	Main Transmission Substation
MW	MegaWatt
N <sub>2</sub> O	Nitrous oxide
NAAQS	National ambient air quality standard
NBKB	Ngwao-Boswa Ya Kapa Bokoni
NBSAP	National Biodiversity Strategy and Action Plan
NCCRWP	National Climate Change Response White Paper
NCW	Not Conservation-Worthy
NDP	National Development Plan
NEMA	National Environmental Management Act

<b>Acronym</b>	<b>Explanation</b>
NEMAQA	National Environmental Management: Air Quality Act
NEMWA	National Environmental Management: Waste Act
NGI	National Geo-spatial Information
NGO	Non-Governmental Organisation
NGP	New Growth Path
NHRA	National Heritage Resources Act
NHS	National Heritage Site
NIOSH	National Institute for Occupational Safety and Health
NMR	Nuclear Magnetic Resonance
NNR	National Nuclear Regulator
NORM	Naturally occurring radioactive material
NO <sub>x</sub>	Nitrogen oxides
NO <sub>x</sub>	Mono-nitrogen oxide
NPC	National Planning Commission
NRF	National Research Foundation
NRM	Natural Resource Management
NSW	New South Wales
NWA	National Water Act
NWRS	National Water Resources Strategy
OCGT	Open Cycle Gas Turbine
ONPASA	Onshore Petroleum Association of South Africa
OSHA	Occupational Safety and Health Administration
PAI	Physico-chemical Driver Assessment Index
PASA	Petroleum Agency SA
PCG	Process Custodians Group
PEC	Project Executive Committee
PES	Present Ecological State
PGA	Peak ground acceleration
PHMC	Pennsylvania Historical & Museum Commission
PHRA	Provincial Heritage Resources Agencies
PHS	Provincial Heritage Site
PICC	Presidential Infrastructure Coordinating Commission
PJ	PetaJoule
PM	Particulate Matter
PPD	Peak-plateau-decline
PPE	Personal protective equipment
PSHA	Probabilistic seismic hazard assessment
PV	photovoltaic
RCP	Representative Concentration Pathway
REIPPPP	Renewable Energy Independent Power Producers Procurement Programme
RFI	Radio frequency interference
RfV	Reference Value
RHAM	Rapid Habitat Assessment Method
RSA	Republic of South Africa
RV	Recreational Vehicle
SAAO	South African Astronomical Observatory

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<b>Acronym</b>	<b>Explanation</b>
SABS	South African Bureau of Standards
SADC	Southern African Development Community
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
SAIAB	South African Institute for Aquatic Biodiversity
SALT	Southern African Large Telescope
SANBI	Southern African National Biodiversity Institute
SANParks	South African National Parks
SANRAL	South African National Roads Agency Limited
SANS	South African National Standard
SANSN	South African National Seismograph Network
SAR	Synthetic Aperture Radar
SARAS	South African Radio Astronomy Service
SAWS	South African Weather Service
SCLC	Southern Cape Land Committee
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
SES	Social-ecological system
SG E&P	shale gas exploration and production
SGD	Shale gas development
SGP	Strategic Grid Plan
SIA	Social impact assessment
SIC	Standard Industry classification
SIMP	Social Impact Management Plan
SIP	Strategic Integrated Project
SIRT	single industry resource town
SKA	Square Kilometre Array (Internationally funded radio telescope observatory to be constructed in the vicinity of Carnarvon, Northern Cape.)
SLCFs	Short-lived climate forcers
SLO	social license to operate
SLP	Social and Labour Plan
SOD	Second Order Draft
SOEKOR	Southern Oil Exploration Corporation
SPLUMA	Spatial Planning and Land Use Management Act
SPM	Summary for Policy-Makers
SSU	small stock unit
TB	Tuberculosis
tcf	trillion cubic feet
TDP	Transmission Development Plan
TDS	Total dissolved solids
TPHs	Total petroleum hydrocarbons
TWA OEL-CL	Time weighted average occupational Exposure Limit – Control Limit
TWA OEL-RL	Time weighted average occupational Exposure Limit - Recommended Limit
TWh	Terawatt-hours
UFS	University of the Free State

<b>Acronym</b>	<b>Explanation</b>
UGEP	utilizable groundwater exploitation potential
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNGD	Unconventional natural gas development
UNGDP	Unconventional natural gas development and production
US EPA	United States Environmental Protection Agency
USA	United States of America
UV	Ultraviolet
UYF	Umsobomvu youth fund
VEGRAI	Vegetation Response Assessment Index
VFR	'Visiting friends and relatives'
VH	Very high
VIA	Visual impact assessment
VOC	Volatile organic compound
vpd	vehicles per day
VRE	Variable renewables
WHO	World Health Organization
WIM	Weigh-In-Motion
WLAN	Wireless local area networks
WMA	Water Management Area
WSA	Water Services Act
WTW	Water treatment works
WWTW	Wastewater Treatment Works
YLD	Years lived with a disability
YLL	Years of life lost due to premature death
ZOD	Zero Order Draft