

SUB-DIRECTORATE: BIODIVERSITY MANAGEMENT

MEMORANDUM

BIODIVERSITY MANAGEMENT – KEY READINGS AND RESOURCES

1. Purpose

The purpose of this memorandum is to provide the reader with a resource providing key readings in biodiversity planning and management to develop an understanding of the context of Biodiversity in the Western Cape Province.

2. Acronyms

All acronyms that are used in this memorandum are to be found in Annexure A

3. Background

The unique biodiversity of our Western Cape Province places special responsibilities on this Department to highlight biodiversity considerations in all its functions and to ensure that Sustainable Development in the Western Cape Province is strongly emphasized

The following information is hereby provided. In most instances URL's will be provided from where the documents can be downloaded and or printed by the reader. If the reader has difficulty in accessing individual documents then most can be provided by myself at dlaidler@pgwc.gov.za.

4. Discussion

4.1. The statutory and environmental context of Biodiversity Management in the Western Cape Province

A comprehensive coverage of the statutory and environmental context of Biodiversity Management in the Western Cape Province is attached as Annexure B.

It is suggested that a reader first tackle the section dealing with the “Provincial Environmental Context” on page 34 onwards rather than starting with the somewhat “drier” policy and legislative issues.

4.2. Key biodiversity resources and readings

Key resources, with which the consultants and steering committee members must be cognizant, include:

1. The Convention on Biodiversity	http://www.biodiv.org/default.aspx
2. The World Heritage Convention	<p>http://whc.unesco.org/pg.cfm?cid=160</p> <p>The World Heritage Committee, meeting in Suzhou, China, officially recognised the Cape Floristic Region as South Africa's sixth world heritage site on 30 June 2004.</p> <p>Covering a total area of more than 553 000 hectares, the Cape Floristic Region World Heritage site comprises eight protected areas, considered to be the most important examples of the Cape Floral Region. They are Table Mountain National Park, De Hoop Nature Reserve, the Boland mountain complex, the Groot Winterhoek wilderness area, the Swartberg mountains, Boosmansbos wilderness area, the Cederberg wilderness area and Baviaanskloof, which straddles the Western and Eastern Cape boundary.</p>
3. The National Constitution	http://www.info.gov.za/structure/constitution.htm
4. The Constitution of the Western Cape Province	http://www.capecapegateway.gov.za/Text/2003/wcape_constitution_english.pdf
5. White Paper on Environmental Management Policy	http://www.info.gov.za/whitepaper/1998/environwp.pdf
6. Whitepaper on the Conservation and Sustainable Use of South Africa's Biological Diversity	http://www.environment.gov.za/PollLeg/WhitePapers/Biodiversity/Contents.htm
7. National Environmental	http://www.info.gov.za/acts/1998/a107-98.pdf

Management Act	
8. NEMA: Biodiversity Act	A copy of the document signed by the State President and obtained recently from DEAT is available from Mr. D Laidler at dlaidler@pgwc.gov.za
9. The “EIA Regulations” (Notices R 1182 and R 1183 of 5 September 1997 and all subsequent amendments and corrections)	http://www.lando.co.za/dlaidler/LinksEnviro.htm See the section “Key Environmental and Related Legislation”
10. The NEMA: Control of Vehicles in the Coastal Zone Regulations	http://www.environment.gov.za/PolLeg/GenPolicy/4x4_Regulate_20122001.htm
11. Cape Action for People and the Environment (C.A.P.E.)	http://www.capeaction.org.za See also item 16, Western Cape Nature Conservation Board’s (WCNCB) Conservation Planning Unit (CPU), below
12. Succulent Karoo Ecosystem Programme (SKEP)	http://www.skep.org
13. Subtropical Thicket Ecosystem Project (STEP)	http://cpu.uwc.ac.za/step.htm
14. Department of Environmental Affairs and Tourism (DEAT)	http://www.environment.gov.za
15. National Botanic Institute	http://www.nbi.ac.za/ Pay particular attention to the Biodiversity Policy and

	<p>Planning hyperlink:</p> <p>http://www.nbi.ac.za/frames/biodiversityfram.htm</p>
16. National Biodiversity Strategy and Action Plan (NBSAP)	<p>http://www.environment.gov.za/ProjProg/ProjProg/2004Jun10/natStrategy_26052004.html</p> <p>Please pay particular attention to all the available reports including those dealing with “Policy and Legal Strategic Priority Issues and Recommendations” and “Economic Integration and Poverty Alleviation”.</p>
17. Western Cape Nature Conservation Board’s (WCNCB) Conservation Planning Unit (CPU)	<p>For maps, GIS data and a great deal of other information about systematic conservation planning in the Cape Floristic Region (CFR) visit WCNC’s CPU at;</p> <p>http://cpu.uwc.ac.za/</p> <p>Click on the “DATA” menu tag to access maps, metadata (information to assist understanding the maps) and a variety of key reports to have derived from the C.A.P.E. programme</p>
18. Botanical Society Conservation Unit	<p>www.botanicalsociety.org.za/ccu</p> <p>Click on ‘DOWNLOADS’ for access to a variety of recent applicable reports.</p>
19. The International Union for the Conservation of Nature (IUCN)	<p>http://www.iucn.org/</p>
20. United Nations Educational, Scientific and Cultural Organisation (UNESCO)	<p>http://whc.unesco.org/</p> <p>Runs the National Heritage Site Programme – see also World Heritage Convention above</p>
21. Conservation International	<p>http://www.conservation.org/xp/CIWEB/home</p> <p>Pay particular attention to the Biodiversity Hotspots page at:</p> <p>http://www.biodiversityhotspots.org/xp/Hotspots ,</p> <p>the details on the Cape Floristic Region hotspot at:</p> <p>http://www.biodiversityhotspots.org/xp/Hotspots/cape_floristic/ and</p> <p>the science behind the hotspots concept at:</p>

	http://www.biodiversityhotspots.org/xp/Hotspots/hotspotsScience/
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Particular attention should be paid to:

- The Whitepaper on the Conservation and Sustainable Use of South Africa's Biological Diversity;
- The NEMA: Biodiversity Act;
- Cape Action for People and the Environment (C.A.P.E.);
- Succulent Karoo Ecosystem Programme (SKEP);
- Subtropical Thicket Ecosystem Project (STEP);
- National Botanical Institute: Biodiversity Policy and Planning;
- National Biodiversity Strategy and Action Plan (NBSAP); and
- Botanical Society Conservation Unit.

4.3. Key biodiversity readings

These readings are applicable to the province and are current.

1	<p>Driver, Amanda, Richard M. Cowling and Kristal Maze, 2003. Planning for Living Landscapes: Perspectives and Lessons from South Africa.</p> <p>http://www.botanicalsociety.org.za/CCU/downloads/reports/Planning%20for%20Living%20Landscapes%202003.pdf</p>
2	<p>Conservation Planning in the Cape Floristic Region was profiled internationally in a Special Issue of Biological Conservation Volume 112, Issues 1-2, Pages 1-297 (July - August 2003).</p> <p>This volume edited by Richard Cowling and Bob Pressey contains sixteen papers addressing all aspects of the C.A.P.E. programme, and provides a rich resource for researchers, planners and managers in the Cape Floristic Region and beyond.</p> <p><i>"A new collection of papers in Biological Conservation, focusing on the Cape Floristic Region of South Africa, sets the standard for systematic prioritization of conservation areas, illustrates how ambitious plans can be implemented on the ground and, along the way, advances difficult issues such as the conservation of biological processes" Andrew Balmford TREE</i></p> <p>The full list of titles is as follows:</p> <ol style="list-style-type: none"> 1. Introduction to systematic conservation planning in the Cape Floristic Region, Pg 1-13. R. M. Cowling and R. L. Pressey

2. The Cape Action Plan for the Environment: overview of an ecoregional planning process, Pg 5-28. Amanda Younge and Sandra Fowkes
3. Aligning the diverse: the development of a biodiversity conservation strategy for the Cape Floristic Region, Pg 29-43. Paul Lochner, Alex Weaver, Caroline Gelderblom, Raewyn Peart, Trevor Sandwith and Sandra Fowkes
4. Effectiveness of land classes as surrogates for species in conservation planning for the Cape Floristic Region, Pages 45-62. Amanda T. Lombard, Richard M. Cowling, Robert L. Pressey and A. G. Rebelo
5. Current patterns of habitat transformation and future threats to biodiversity in terrestrial ecosystems of the Cape Floristic Region, South Africa, Pages 63-85. Mathieu Rouget, David M. Richardson, Richard M. Cowling, J. Wendy Lloyd and Amanda T. Lombard
6. Developing regional and species-level assessments of climate change impacts on biodiversity in the Cape Floristic Region, Pages 87-97. G. F. Midgley, L. Hannah, D. Millar, W. Thuiller and A. Booth
7. Formulating conservation targets for biodiversity pattern and process in the Cape Floristic Region, South Africa, Pages 99-127. R. L. Pressey, R. M. Cowling and M. Rouget
8. The current configuration of protected areas in the Cape Floristic Region, South Africa--reservation bias and representation of biodiversity patterns and processes, Pages 129-145 Mathieu Rouget, David M. Richardson and Richard M. Cowling
9. The expert or the algorithm?--comparison of priority conservation areas in the Cape Floristic Region Identified by park managers and reserve selection software, Pages 147-167. R. M. Cowling, R. L. Pressey, R. Sims-Castley, A. le Roux, E. Baard, C.J. Burgers and G. Palmer
10. Options for the conservation of large and medium-sized mammals in the Cape Floristic Region hotspot, South Africa, Pages 169-190. Graham I. H. Kerley, Robert L. Pressey, Richard M. Cowling, André F. Boshoff and Rebecca Sims-Castley
11. A conservation plan for a global biodiversity hotspot--the Cape Floristic Region, South Africa, Pages 191-216. R. M. Cowling, R. L. Pressey, M. Rouget and A. T. Lombard
12. Measuring conservation value at fine and broad scales: implications for a diverse and fragmented region, the Agulhas Plain, Pages 217-232. Mathieu Rouget
13. Economic value of terrestrial and marine biodiversity in the Cape Floristic Region: implications for defining effective and socially optimal conservation strategies, Pages 233-251. Jane K. Turpie, Barry J. Heydenrych and Stephen J. Lamberth
14. Evaluating combinations of on-and off-reserve conservation strategies for the Agulhas Plain, South Africa: a financial perspective, Pages 253-273. Genevieve Q. K. Pence, Mark A. Botha and Jane K. Turpie
15. Estimating the costs of conserving a biodiversity hotspot: a case-study of the Cape Floristic Region, South Africa, Pages 275-290. S. R. Frazee, R. M. Cowling, R. L. Pressey, J. K. Turpie and N. Lindenberg
16. Turning strategy into action: implementing a conservation action plan in the Cape Floristic Region, Pages 291-297. Caroline M. Gelderblom, Brian W. van Wilgen, Jeanne L. Nel, Trevor Sandwith, Mark Botha and Maria Hauck

Note particularly: article 13 that considers the economic value of terrestrial and

	marine biodiversity in the Cape Floristic Region and the implications for defining effective and socially optimal conservation strategies.
3	<p>Leading up to the Special Issue of Biological Conservation was a key report entitled “Framework for a Conservation Plan for the Cape Floristic Region (CFR)” was published in December 1999. This report explains the concepts of “Pattern”, “Process” and “Irreplaceability analysis” as used in the conservation planning field and is key to understanding systematic biodiversity conservation planning. The report is available at:</p> <p>http://cpu.uwc.ac.za/downloads/cape/CowlingRMetalFrameworkforaConservationPlan.pdf</p>
4	CSIR Environmentek Report number ENV-S-I 2003-015. Incorporating Systematic Conservation Planning into the Integrated Development Planning Process in South Africa, March 2004
5	<p>S. M. Pierce, R. M. Cowling, T. Sandwith, and K. MacKinnon (Eds), Mainstreaming Biodiversity in Development. Case Studies from South Africa. The World Bank Environment Department, August 2002.</p> <p>Note particularly: Paper 11 - C. M. Gelderblom, D. Krüger, L. Cedras, T. Sandwith and M. Audouin. Incorporating Conservation Priorities into Planning Guidelines for the Western Cape</p>
6	Cape Action Plan for the Environment - Project Appraisal Document, 2004
7	<p>Amrei von Hase, Mathieu Rouget, Kristal Maze and Nick Helme, September 2003. A Fine-Scale Conservation Plan for Cape Lowlands Renosterveld: Technical Report. (Available as both summary and main reports)</p> <p>http://www.botanicalsociety.org.za/CCU/downloads/reports/Cape%20Lowlands%20Renosterveld%20Summary%20Report.pdf</p> <p>http://www.botanicalsociety.org.za/CCU/downloads/reports/Cape%20Lowlands%20Renosterveld%20Main%20Report.pdf</p>

Below are some supplementary readings available from Dennis Laidler at dlaidler@pgwc.gov.za on request.

8.	Botanical Society of South Africa, March 2003. The Conservation Status of Ecosystems. (This was originally written as a motivation for the concept to be included in the Biodiversity Bill).
9.	Grundy, Ilsa and Rachel Wynberg. Biodiversity Planning Support Programme Integrating Biodiversity into the Forestry Sector South Africa, August 2001.

Below are some appropriate international readings and URLs.

1.	Preparatory Report to the World Summit on Sustainable Development, August 2002. A Framework for Action on Biodiversity and Ecosystem Management. WEHAB Working Group.
2.	Plant Diversity, Sustainable Rural Livelihoods and the HIV/AIDS Crisis (mainly Asian orientated but interesting nevertheless) http://www.hiv-development.org/text/publications/plant_diversity.pdf
3.	Australian Department of Environment and Heritage Key Publications for Biodiversity: http://www.deh.gov.au/biodiversity/publications/index.html Biodiversity Conservation in Regional Planning: http://www.deh.gov.au/biodiversity/publications/index.html#planning including: A report by M.D. Young, N. Gunningham, J. Elix, J. Lambert, B. Howard, P. Grabosky and E. McCrone. Prepared by CSIRO Division of Wildlife and Ecology, the Australian Centre for Environmental Law, and Community Solutions, January 1996. Reimbursing the Future: An evaluation of motivational, voluntary, price-based, property-right, and regulatory incentives for the conservation of biodiversity. Biodiversity Series, Paper No. 9, Biodiversity Unit http://www.deh.gov.au/biodiversity/publications/series/paper9/index.html

4.	<p>The World Bank:</p> <p>Environment</p> <p>http://Inweb18.worldbank.org/ESSD/envext.nsf/41ByDocName/Environment</p> <p>Biodiversity</p> <p>http://Inweb18.worldbank.org/ESSD/envext.nsf/41ByDocName/Environment</p> <p>Biodiversity and Environmental Impact Assessment</p> <p>http://Inweb18.worldbank.org/ESSD/envext.nsf/48ByDocName/ToolsBiodiversityandEnvironmentalAssessment</p>
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Familiarisation with the readings given above and information at the URLs provided will facilitate understanding of the biodiversity significance and legislative and policy directives and obligations for placing a strong focus on Biodiversity Conservation within the Provincial Spatial Development Framework.

Failure to accord Biodiversity Conservation significant prominence in the PSDF will mean that all future municipal and provincial spatial planning and environmental and land-use planning decisions will give inadequate consideration to the global biodiversity significance of the Western Cape Province. This will invariably lead to ongoing and increasing litigation costs for a variety of organs of state within the province, related to having those plans and decisions continually being taken on review to court, and ongoing deterioration of the provincial environment and the quality of life of all its citizens.

D.F. Laidler

DEPUTY DIRECTOR: BIODIVERSITY MANAGEMENT

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ANNEXURE A

List of Acronyms.

AD: IEM	Assistant Director: Integrated Environmental Management
APPA	Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965)
BB	Biodiversity Bill (1994)
C.A.P.E.	Cape Action for People and Environment
CARA	Conservation of Agricultural Resources Act, 1983 (Act 43 of 1983)
CBD	Convention on Biological Diversity (1992)
CD: ELP	Chief Director: Environmental and Land Planning
CEC	Committee for Environmental Co-ordination
CFR	Cape Floristic Region
CITES	Convention on International Trade in Endangered Species
D: IEM	Director: Integrated Environmental Management
DACST	Department of Arts, Culture, Science and Technology
DCMB	Draft Coastal Management Bill (1994)
DD: BM	Deputy Director: Biodiversity Management
DD: LS	Deputy Director: Legal Support
DD: OPTC	Deputy Director: Operational Policy and Transversal Co-ordination
DEA&DP	Department of Environmental Affairs & Development Planning (Western Cape Provincial Government)
DEAT	Department of Environmental Affairs and Tourism
DME	Department of Minerals and Energy
DTI	Department of Trade and Industry
DWAF	Department of Water Affairs and Forestry
ECA	Environment Conservation Act, 1989 (Act 73 of 1989)
EIA	Environmental Impact Assessment
EIA Regs	Environmental Impact Assessment Regulations, (Government Notices No. 1182 and 1183 of 5 September 1997) as amended
EIP	Environmental Implementation Plan
EIPs	Environmental Implementation Plans
EMCA	Environmental Management Co-operation Agreement
EMP	Environmental Management Plan
EMP	Environmental Management Plan
EMPR	Environmental Management Programme
EMPs	Environmental Management Plans
EMS	Environmental Management System
HSA	Hazardous Substances Act, 1973 (Act 15 of 1973)
IDP	Integrated Development Plan
IDPs	Integrated Development Plans
IEM	Integrated Environmental Management
IPPHC	Inter-provincial Professional Hunting Committee
IUCN	International Union for the Conservation of Nature and Natural Resources

LUPO	Land Use Planning Ordinance, 1985 (Ordinance 15 of 1985)
MA	Minerals Act, 1991 (Act 50 of 1991)
MaB	Man and Biosphere
MEA	Multi-lateral Environmental Agreements
MINMEC	Minister and Members of Executive Committee
MINTEC	Minister and the Technical Committee
MSA	Local Government: Municipal Systems Act, 2000 (Act 32 of 2000)
NBI	National Botanical Institute
NEMA	National Environmental Management Act, 1998 (Act 107 of 1998)
NHRA	National Heritage Resources Act, 1999 (Act 25 of 1999)
NVFFA	National Veld and Forest Fire Act, 1998 (Act 101 of 1998)
ORV Regs	Regulations in terms of the National Environmental Management Act, 1998: Control of Vehicles in the Coastal Zone
PAA	Protected Areas Act
PAIA	The Promotion of Access to Information Act, 2000 (Act 2 of 2000)
PAJA	Promotion of Administrative Justice Act, 2000 (Act 3 of 2000)
PAs	Protected Areas
PDA	Planning and Development Act, 1999 (Act 7 of 1999) (Western Cape)
PDAAB	Draft Amendment Bill on the Amendment of the Western Cape Planning and Development Act, 1999 (Act 7 of 1999) (Western Cape)
PEPC	Permits and Enforcement Planning Committee
PGDS	Provincial Growth and Development Strategy
PGWC	Provincial Government of the Western Cape
PMFA	Public Finance Management Act
PPA	Physical Planning Act, 1991 (Act 125 of 1991)
PPP	public private partnership
PSDF	Provincial Spatial Development Framework
RAMSAR	RAMSAR Convention on Wetlands
SADC	Southern African Development Community
SAHRA	South African Heritage Resources Agency
SEA	Strategic Environmental Assessment
SKEP	Succulent Karoo Ecosystem Programme
SoER	State of Environment Report
SSA	Sea Shore Act, 1935 (Act 21 of 1935)
STEP	Subtropical Thicket Ecosystem Programme
TFCAs	Transfrontier Conservation Areas
WCNCB	Western Cape Nature Conservation Board
WG 1	MINTEC Working Group 1
WG 2	MINTEC Working Group 2
WG 3	MINTEC Working Group 3
WG 4	MINTEC Working Group 4
WHC	World Heritage Committee
WPBD	White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity (GN 1095 of 1997)

WPEM

White paper on Environmental Management Policy for South Africa (GN 18894 of 1998)

ANNEXURE B

See separate document, "Biodiversity Context.doc"