<b>Supplementary material to</b> : Van der Merwe JH, Van Niekerk A. Application of geospatial technology for gap analysis in tourism planning for the Western Cape. S Afr J Sci. 2013;109(3/4), Art. #1226, 10 pages. <a href="http://dx.doi.org/10.1590/sajs.2013/1226">http://dx.doi.org/10.1590/sajs.2013/1226</a>
Supplementary table 1: Spatial variables used for demarcating development potential of seven tourism products

Tourism resource variables	Data type <sup>†</sup>	Feature type	Attraction relevance	Priority tourism products (see Table 2)							
	1. 1.			P1&2	P3	P4	P5&6	<b>P</b> 7	P8	P9	
Natural assets											
Elevation (m)	S	Grid	Height/Topo: Activity/Tranquillity								
Slope (%)	S	Grid	Topo: Activity/Tranquillity	5	1						
Clifflines	В	Grid	Topo: Activity/Tranquillity	5	1						
Permanent waterlines	В	Line	Running water: Activity/Tranquillity	1	2			1		1	
Permanent water surfaces	В	Poly	Dams/Lakes/Rivers= Water activity/Tranquillity	1	2			1		1	
Coastal or beach material	N	Poly	Environmental attraction/Activity/Tranquillity	2	3						
Coastal morphology	N	Line	Environmental attraction/Activity/Tranquillity	2	3						
Distribution of marine fauna	N	Point	Environmental attraction/Activity/Tranquillity	3		1					
South African terrain index	N	Poly	Environmental attraction						1	1	
Environmental sensitivity index	0	Poly	Environmental interest								
Mineral springs	В	Point	Environmental attraction						1		
Mountain passes	В	Point	Environmental/Cultural attraction	4			3				
Scenic drives	В	Line	Environmental attraction	4		1			1		
Mean annual temperature	S	Poly	Comfort index				1	2			
Mean monthly maximum temperature	S	Poly	Comfort index	6	4	2					
Mean monthly minimum	C	Poly	Comfort index	6	4	2					
temperature Macan Industrian arcture	S	1									
Mean July temperature		Poly	Comfort index	6	4						
Mean February temperature	S	Poly	Comfort index	6	4	3					
Mean annual rainfall	S	Poly	Outdoor opportunity	6	4	3	1	2			
Mean number of days with frost	S	Poly	Outdoor comfort		4	3		2			
Mean relative humidity	S	Poly	Outdoor comfort	6	4	3		2			

Human heritage resources										
Land cover	N	Poly	Activity opportunity/Interest			4	3		-	
Economic activity: Agricultural										
type	N	Poly	Activity opportunity/Interest; Food/shopping			4	2	3	2	2
Economic activity: Industry	0	Point	Activity interest			4	2	3	2	2
Nature conservation areas	В	Poly	Activity interest	•		4	2	3	2	2
Historical/heritage: Rock art	В	Point	Activity opportunity/interest			4	2	3	2	2
Historical/heritage: Archaeological finds	В	Point	Environmental/Cultural interest			4	2	3	2	2
Historical/heritage: Monuments	В	Point	Cultural interest			4	2	3	2	2
Historical/heritage: Passes/trails	В	Line	Environmental/Cultural interest/Activity			4	2	3	2	2
Historical/heritage: Intangible	В	Point	Cultural interest			4	2	3	2	2
Heritage repository: Museum	В	Point	Environmental/Cultural interest			4	2	3	2	2
Shipwrecks	В	Point	Environmental/Cultural interest/Activity			4	2	3	2	2
Culture: Fine arts & crafts	В	Point	Cultural interest			4	2	3	2	2
Culture: Performing arts	В	Point	Cultural interest			4	2	3	2	2
Town sense of place	В	Point	Environmental/Cultural interest			4		-		<u> </u>
Transportation accessibility										
Road network by class	0	Line	Market and resource access	7	5	5	4	4	-	
Railway stations (passenger)	0	Point	Market and resource access			5	4			
Airports/airfields by class	0	Point	Market-resource access/Activity opportunity	7		5	5			
Weighted metropolitan distance	S	Point	Market-resource access/Activity opportunity			5	5	4		
Main tarred and gravel roads	0	Line	Market-resource access/Activity opportunity	7	5	5	4	4		
Settlement structure										
Town population number	S	Point	Likely service level			6	7			3
Population density	S	Poly	Likely service level			6	7			3
Population development:	S	Point	Likely service level			6	6	5	3	3

Economic index										
Population development: Education index	S	Point	Likely service level	8		6	6	5	3	3
Human needs: Composite index	S	Point	Tourism development need			6	6	5		3
District municipality IQ rating	0	Poly	Development support	8		6	7	5	3	
Services/plant										
Hospitals/clinics/pharmacies	В	Point	Emergency/well-being support	9	6	7	9	7	4	4
Medical staff: Dentist/doctors	S	Point	Emergency/well-being support	9	6	7	9	7	4	4
Police stations	В	Point	Emergency support	9	6	7	9	7	4	4
Post offices	В	Point	Communications support	9		7	9			
Cell phone coverage by provider	0	Poly	Communications support	9	-	-	•	7		
Financial services: Banks	S	Point	Subsistence support	9		7	9		4	4
Petrol service stations	S	Point	Spiritual support	9	6	7	9	7	4	
Tourism plant: Accommodation	S	Point	Travel support	9		8	8	6	-	
Tourism plant: Restaurants	S	Point	Travel support	9	6	8	8	6	-	
Blue Flag beaches	В	Point	Travel attraction						4	
Total: Single variables				6	7	5	5	5	10	9
Total: Indexed variables				9	6	8	9	7	4	4
Total: All variables				15	13	13	14	12	14	13

<sup>†</sup>Data type: N, nominal; O, ordinal; B, Boolean (0,1); S, scale.

Variable format: ⋅ , single; 1 – 9, index.

Tourism products: P1&2, Nature: Ecology and scenery; P3, Nature: Adventure and activity; P4, Sun and sand; P5&6, Culture; P7, Rural and agritourism; P8, Meetings, incentives, conferences, exhibitions (MICE) and business; P9, Food and wine.

Raw form or source of data: existing analogue or digital maps and data lists mapped by researchers.

Source institutions: Centre for Geographical Analysis (CGA); Chief Directorate Surveys and Mapping (CDSM); Agricultural Research Council; Agricultural geographical information system (AGIS); Environmental Potential Atlas (ENPAT); Council for Geosciences (CGS); Geological Society; South African National Biodiversity Institute (SANBI); CapeNature; South African Weather Bureau (SAWB); Council for Scientific and Industrial Research (CSIR); South African Heritage Resource Agency (SAHRA); Cape Town Tourism; Cape Town Routes Unlimited (CTRU).