

Executive Summary

VDWHS

Land Use and Infrastructure and Management Plan

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Part 1: Points of Departure for the Research

- Land use and infrastructure forms a core focus in the management of the balance between the two opposing forces of spatial development and conservation. This inter relationship represents an important driving force in protecting and conserving the integrity of the VDWHS.
- The policy, legislative and guideline framework applicable to land use and infrastructure management within the VDWHS area is complicated, fragmented and uncoordinated.
- Various and different statutes are applicable either to either the Free State or North West portions of the study area.
- All land within the VDWHS however is subject to international, national, provincial and local statutory framework including:
 - ⇒ World Heritage Convention Act (Act 49 of 1999) (WHCA)
 - ⇒ National Heritage Resources Act (Act 25 of 1999) (NHRA)
 - ⇒ National Environmental Management Act (Act 107 of 1998) (NEMA)
 - ⇒ Environment Conservation Act (Act 73 of 1989) (ECA)
 - ⇒ National Environmental Management: Protected Areas Act (Act 57 of 2003)
 - ⇒ Physical Planning Act (Act 88 of 1967 and Act 215 of 1991) (PPA)
 - ⇒ Development Facilitation Act (Act 67 of 1995) (DFA)
- The importance of WHCA for development within VDWHS through the Management Authority can thus be summarized as follows:
 - ⇒ Application of the principles of sustainable development (NHRA and NEMA) by balancing socio-economic development with cultural and/or environmental heritage conservation
 - ⇒ Implementation of the IMP within VDWHS
 - ⇒ WHCA is subject to applicable law such as the NHRA and NEMA
 - ⇒ WHCA is thus a parallel regulatory instrument not intended to override or replace existing legislation but to complement the existing regulatory framework
 - ⇒ The Management Authority for VDWHS will be an exclusive body empowered by all legislation applicable to all spheres of government through cooperation with such institutional bodies of government and other organs of state
- The division of powers, functions and duties related to the various spheres of government and the role and mandate of the Management Authority are dictating the preparation of the land use and infrastructure management plan input into the Integrated Management Plan (IMP) for the VDWHS (Refer to **Table 1.2**).

- In complying with the powers, functions and duties and mandate of the Management Authority as described above two spatial entities are of relevance. The first is the institutional reality related to provincial and government and the second the location of the VDWHS within the current municipal institutional reality. In both cases the alignment between institutional reality and the Management Authority will be important for land use and infrastructure management specifically and the IMP in general.
- The official boundary of VDWHS holds important planning and management implications for the Management Authority:
 - ⇒ Spatially VDWHS consists of two entities (core area and buffer zone). The outer boundary subdivides farms into two giving rise to a dualistic situation not supportive of identity promotion and association.
 - ⇒ This spatial divide will not promote effective integrated management from a land use, development and infrastructure perspective. Lack of spatial consistency will complicate the management and development control within the VDWHS.
 - ⇒ The existence of two geographical entities implies that two sets of guidelines for land use and infrastructure management will have to be compiled, managed and enforced.
- From the research it became evident that there is a need for a 'spatially neutral zone' between the outer boundaries of VDWHS and its immediate geographical surrounds. Attention should be given as how to realize this need. The implementation of a system of free association by adjacent land owners with the objectives of VDWHS should be considered by the Management Authority.
- Notwithstanding important process implications, the position of the boundary needs to be investigated scientifically by the Management Authority whilst a formal description of the final boundary is required as to define the land from a cadastral viewpoint.
- The VDWHS is characterized by private land ownership and an absence of the majority of land owners who are residing permanently outside the area. This will have important implications for tourism development in the VDWHS and for the Management Authority in fulfilling its mandate.
- The existing knowledge, if assessed based on the potential input as included in the Workplan, has illustrated that an extensive resource base exists. This assessment did not address quality aspects as it will be dealt with within the various project components.
- The existing knowledge however is flawed due to the absence of data and information on site level socio-economic, land use and on-site infrastructure and services of all properties included in the VDWHS. This is an important need that must be addressed by the Management Authority as a priority
- **Part 1** of this report contributed to isolate the issues as summarized above. However, land use and infrastructure management needs to be integrated in its total context. **Figure 1.2** illustrates the complicated nature of this interface for the VDWHS. From this figure the pivotal role of the VDWHS via the Management Authority can be deduced.

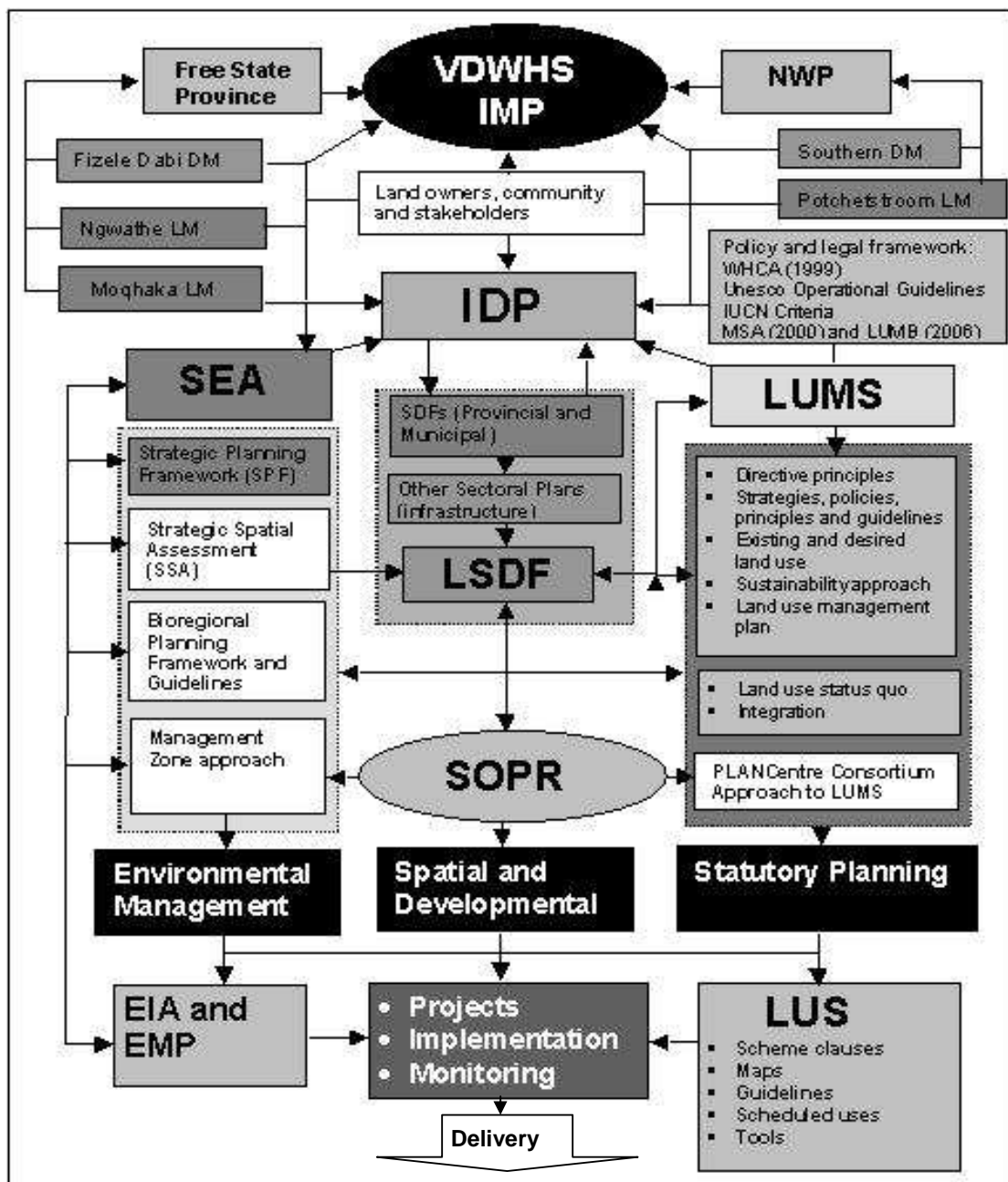


Figure 1.2: Alignment and interface between policy, legislation, institutional structures, and existing knowledge applicable to the VDWHS
 Source: AGES, 2007

Part 2: Spatial Planning Framework

- Agricultural activities, biodiversity and land use interacts in a unique way in the VDWHS and represents the core considerations in its historic, present and future development path

- The spatial entity of the VDWHS and its conservation and development focus upon the following points of departure:
 - ⇒ The VDWHS represents a cohesive Natural and Cultural Heritage Protected Area of international importance
 - ⇒ Land use and infrastructure management needs to be focused on the optimum utilization of the resources for conservation through sustainable development
 - ⇒ It should provide for responsible and active land and infrastructure management and development practices
 - ⇒ It should address social, economical and community concerns in line with appropriate conservation approaches
 - ⇒ It must ensure the legal defensibility of land uses and development practices
 - ⇒ It should restore and enhance the biodiversity in a responsible fashion
 - ⇒ It should provide opportunities for economic activities to sustain itself in context of conservation approaches for the benefit of current and future generations.
- Various internal and external spatial components impacts on activities affecting the integrity of the VDWHS. These components consist of the influence of inter-regional development nodes; internal development nodes; regional access and movement within the VDWHS
- There is an array of spatial issues, threats, opportunities and challenges that need to be addressed by the Management Authority through the land use and infrastructure management plan. The existing knowledge base contains details in this regard and the public participation process added further content and quality. The land use and infrastructure management plan will have to address these inputs. The interpretation thereof will be included in the planning and management implications (**Part 5**) that will serve as input into the IMP.
- The spatial gap analysis produced the following outcome:
 - ⇒ Need for integration of IEM and IDP and its sectoral plans (Refer to **Figure 1.2**)
 - ⇒ VDWHS not included in all existing integrated development plans (IDP's) for the various institutional entities (Refer to point 1.4)
 - ⇒ VDWHS not included in existing spatial development plans (SDF's) of the institutional entities (Refer to point 1.2 and Point 1.3). Limited sectoral plans informs some of the IDP's
 - ⇒ Boundary legalization and finalization (official boundary and inclusion of satellite sites) process
 - ⇒ Lack of a composite and statutory spatial development framework (SDF); strategy formulation and alignment with IDP's to inform Management Authority of VDWHS
 - ⇒ Need for an integrated SDF aligned to IDP's to manage the VDWHS in terms of the objectives and contents as included in Sections 22 and 24 of the WHCA (1999) and application of normative planning principles based on conservation as the main focus
 - ⇒ Lack of detailed level socio-economic, land use and on site infrastructure and services data and information. Existing knowledge that served as input into the IMP is thus flawed and based on broad assumptions
 - ⇒ Need for integrated infrastructure plan to inform LM's and DM's represented within the area of VDWHS as to optimize integration between land use, infrastructure and transport development from a conservation and sustainability perspective
- The official boundary of the VDWHS needs to be determined scientifically based on an applicable demarcation process and output considerations. The official boundary will not support effective, efficient and good management practices and procedures
- The existing knowledge contains important input related to spatial development in the VDWHS:

- ⇒ The SOPR (2006) introduced the concept of 'placemaking' versus 'spacemaking' into the development approach for the VDWHS. The sense of place is articulated through the three concepts of 'sense of arrival', 'sense of orientation' and 'sense of experience'. The SOPR (2006) included specific spatial elements although the founding thereof is not reported in detail. The scientific and spatial justification of the areas as earmarked is not included in the SOPR. No detailed socio-economic profile or land use data and information was considered as it was not included in the terms of reference. The value of the SOPR is that it introduced a further dimension into spatial planning that is of core importance for the conservation of the VDWHS
- ⇒ The Strategic Spatial Assessment (SSA) as included in the SEA (2006) endeavored to formulate a spatial framework or approach for the VDWHS based on the application of the bioregional planning concept. It includes a management zone approach to serve as core spatial entities in the management of VDWHS. This approach was not applied spatially in the SSA. The lack of detailed level socio-economic and land use input inhibited application of these principles to practice
- ⇒ The Strategic Planning Framework (SPF) of the SEA (2006) included an effort to relate the bioregional planning approach of the SSA into practice. In this approach ecological sensitivity and identification of appropriate and inappropriate land uses as core considerations
- ⇒ Specific management zones are identified. Visual, archaeology and cultural heritage sites, geology and tourism potential are used as basic input into the spatial planning framework
- ⇒ The SPF (SEA, 2006) includes proposed management guidelines with specific pre-conditions for development
- ⇒ The SPF added value to the management of the VDWHS in that it produced an approach towards spatial planning for the area

Part 3: Land Use Management Plan

- The land use status quo revealed the following core elements:
 - ⇒ More than half of the land owners within the VDWHS do not reside in the area on a permanent basis
 - ⇒ Land areas closest to the town of Parys are experiencing pressure for subdivision and development
 - ⇒ No detailed data and information base related to existing, applications in process and illegal land uses exist for the VDWHS. From the existing data base it became evident that most (96%) of the land uses other than agriculture is related to tourism
 - ⇒ No spatial concentrations in land use patterns with the exception of clustering along the Vaal River can be identified. Some minor clustering along certain routes is evident
 - ⇒ Illegal land uses is becoming problematic. A complete survey of all land uses and activities is required in the VDWHS
 - ⇒ Due to the non-availability of a socio-economic profile for the area no linkage between land uses and socio-economic reality can be made
- Changing land use patterns constitutes transformation from agriculture to tourism. Land use development takes place in an ad hoc fashion that impact in some cases negatively on conservation and the integrity of VDWHS. Underlying patterns and tendencies can only be determined once the surveys as referred to above have been completed, analyzed and assessed
- The issues and challenges pertaining to land use management confirmed the problematic nature of a lack of data and information. The need for spatial planning guidance and a statutory planning framework (LUMS and LUS) by the Management Authority was deduced. The identification of the most important issues and prioritization confirmed this conclusion

- From the research and in terms of the existing knowledge base the proposed development of Venterskroon as a tourism orientated node is evident. Land uses in support of tourism should be located in Venterskroon in context to spatial and land use reality and carrying capacity parameters. A precinct plan needs to be prepared for the Venterskroon tourism node in context to the development edge as broadly identified
- The existing knowledge base should be transformed into a user friendly and integrated management tool that will assist in managing the VDWHS from an environmental and developmental perspective. The need to integrate the SEA with other planning activities and in context to the institutional reality was identified
- From a statutory planning perspective it is evident that the absence of a LUMS and LUS for management purposes within VDWHS gives rise to various legislative mandates being used to change land use rights. Existing procedures differ for various parts of VDWHS and this create uncertainty form a land owner and product operator viewpoint
- Mitigation measures to be implemented include locational impact assessments, legalization considerations, transfer of land use rights and other legal remedies
- The application of the need for protection of visual characteristics of the VDWHS was identified as to divert inappropriate land uses away from such areas
- Core guidelines for visitor management are formulated. No visitor carrying capacity calculations for VDWHS exist. A formal visitor management policy, strategy and plan will have to be devised in future as the impact of tourism development becomes known
- Best environmental practice will be guided through the existing policy and legal framework (**Table 1.1**) and the content of the SEA (2006)
- The principles dictating the formulation of LUMS and LUS to be facilitated by the Management Authority for the VDWHS consist of the institutional reality, policy and legal framework, and the need for transformation. The objectives as identified are based on these principles
- For the purposes of this report the ecological sensitivity map as included in the IMP Biodiversity Report will serve as the point of departure for land use management
- Founding principles for LUMS and LUS to be facilitated by the Management Authority for the VDWHS are formulated. It includes primary management areas; spatial distribution of such management areas aligned to ecological sensitivity areas and other considerations (visual, archaeological, geological and recreational or tourism potential)
- Water balance based on groundwater aquifers will form an important consideration in new land use and development in the VDWHS
- An assessment framework (**Table 3.8**) for the location of land uses and activities within the identified primary management areas is devised. A score card methodology will be used to evaluate all applications. Development guidelines will be linked to those proposed by the SEA (2006)
- **Map 3.10** shows the integrative approach to land use management in VDWHS. All land uses and activities within the VDWHS can be assessed (**Figure 3.5**) based on the input shown on **Map 3.11**
- Provision is made for the institution of a **Panel of Specialists** to assess all new, existing and illegal land uses within the VDWHS and to report on its impacts to the Management Authority
- Broad interim guidelines for land use and development within the VDWHS are devise including restrictions on footprint, building and structures, policy and legal framework provisions, application of UNESCO Operational Guidelines, application of SAHRA Guidelines, enforcement of the principles as contained in the Regulations under the Protected Areas Act (2003), Cumulative Effects Assessment and guidelines contained in the existing knowledge base

Part 4: Infrastructure Management Plan

- The following gap analysis with regard to infrastructure exist:
 - ⇒ Quantitative and qualitative status quo assessment of infrastructure and projection of needs to address backlogs
 - ⇒ Infrastructure master plan
 - ⇒ Regional and on-site standards
 - ⇒ Technical mitigation measures
 - ⇒ Alignment of infrastructure needs and priorities with IDP's and sectoral plans
 - ⇒ Accessing of development funding through MIG and other development funding
 - ⇒ Alignment and coordination of infrastructure development with Provincial Departments
 - ⇒ Traffic and transport data and information
 - ⇒ Storm water management plan
- From the assessment of the regional infrastructure it is evident that both bulk water and sewerage services are not available in the VDWHS. Possibilities exist to provide services from the adjacent municipalities although restricted availability of financial and capacity resources inhibits this option. Before any conclusion of alternative arrangements can be considered the Management Authority should facilitate the preparation of bulk water and sewerage strategies and plans. From the research it is clear that environmental quality can't be compromised due to cost and affordability as sole considerations.
- Solid waste management in the VDWHS forms a serious threat to the integrity of the VDWHS due to pollution potential. As in the case of water and sewerage the need to compile a solid waste strategy for the area is a priority.
- Coordination of development priorities within the VDWHS with ESKOM and TELKOM and the communication thereof by the Management Authority should be noted.
- Access to and within the VDWHS is a priority. The current reality indicated that as a priority the development through tarring of certain existing roads that will serve as tourist route will be important. In order to capacitate the Management Authority it will be essential to compile a composite of all road construction projects as well as maintenance programmes to serve as a discussion document between the Management Authorities and the Provincial Roads Departments. Influencing of the programmes based on tourism planning and realities is essential.
- The focus of regional infrastructure development in terms of objectives, guidelines, criteria and plan is included in the report (**Table 4.2**).
- Specific issues, challenges and the five (5) most important priorities from an infrastructure perspective are identified in **Table 4.3** and **Table 4**.
- An infrastructure development plan (**Table 4.5**) was formulated and includes appropriate service levels as well as an indication of the role of the Management Authority, province and municipalities and service providers in infrastructure planning, implementation and operation.
- The Infrastructure Management Plan (**Table 4.6**) includes infrastructure to be developed, support facilities and further research that will be required. An estimated cost and timeframe for each project component is included.