G Comparison of MSDF Concepts with Urban Edge extension proposals

In this table, "Brandwacht" refers to exactly the Farm 1049/RE which is the subject of the present application, while "Paradyskloof" refers to the renosterveld area on Farm 369/RE north of the Waterworks.

Page	Sect	MSDF text	Paradyskloof	Brandwacht
			Compatibility	Compatibility
49	4.1	**Maintain and grow the assets of Stellenbosch Municipality's natural environment and farming areas.** Critical biodiversity areas, valuable land areas (including agricultural land), land affecting the maintenance of water resources, and so on, cannot be built upon extensively, it cannot be the focus for significantly accommodating existing or future settlement need spatially.	PKloof is a biodiversity area. INCOMPATIBLE	Brandwacht is a farming area. INCOMPATIBLE.
49	4.1	**3: Direct growth to areas of lesser natural and cultural significance as well as movement opportunity**	High natural significance	Some cultural significance
62	5.2	Critical biodiversity and nature areas: Work to extend, integrate, restore, and protect a system of protected areas that transect the municipality and includes low-to-high elevation, terrestrial, freshwater, wetlands, rivers, and other ecosystem types, as well as the full range of climate, soil, and geological conditions.	PKloof is a biodivsity corridor	N/A
62	5.2	Critical biodiversity and nature areas: Maintain Core (and to an extent Buffer) areas largely as "no-go" areas from a development perspective, only permitting non-consumptive activities (for example, passive outdoor recreation and tourism, traditional ceremonies, research and environmental education).	Figure 26 shows SPCs 1b, 2.	N/A
62	5.2	Water courses: No development should be permitted on river banks below the 1:100 floodlines.	Schuilplaats Valley actually contains a river.	N/A
62	5.2	Agricultural land: High potential agricultural land must be excluded from non-agricultural development.	N/A	The soil is considered medium to high potential.
62	5.2	Urban edge: Prohibit the ad-hoc further outward expansion of urban settlements through maintaining relatively tight urban edges.	Very much ad hoc: FAIL	Developer-driven ad hoc: FAIL
62	5.2	Scenic landscapes: Maintain a clear distinction between urban development and nature/agricultural areas at the entrances to settlements.	Development proposal blurs that distinction	N/A
63	5.2	Areas for residential densification and infill: Actively support residential densification and infill development within urban areas (with due consideration to the valued qualities of specific areas).	Biodiversity area, no development	If development at all, then high density.

Page	Sect	MSDF text	Paradyskloof	Brandwacht
			Compatibility	Compatibility
62	5.2	Community/institutional use: Cluster community facilities together with commercial, transport, informal sector and other activities so as to maximise convenience, safety and socio-economic potential.	Far from commerce and transport	Far from commerce and transport
62	5.2	Community/institutional use: Institutional buildings (accommodating community activities, educational and health services, and entrepreneurial development and skills training) should be located at points of highest access in urban settlements.	Very inaccessible	Inaccessible
63	5.2	Actively support the Adam Tas Corridor within Stellenbosch town for new mixed use development.	Far from ATC	Far from ATC
67	5.3	Stellenbosch Town: Maintain and improve the nature areas surrounding Stellenbosch town.	FAIL	N/A
67	5.3	Stellenbosch Town: As a general principle, contain the footprint of Stellenbosch town as far as possible within the existing urban edge (while enabling logical, small extensions).	Neither logical nor small	Some logic, but not small
67	5.3	Stellenbosch Town: Pro-actively support higher density infill residential opportunity in the town centre, areas immediately surrounding it, and along major routes (with consideration of historic areas and structures).	as above	as above
67	5.3	Stellenbosch Town: Cluster community facilities together with commercial, transport, informal sector and other activities so as to maximise convenience, safety and socio-economic potential.	as above	as above
101	6.4	Proposed MSDF Policy: Actively promote compact, dense, mixed use development which reduces car dependence and enables and promotes use of public and NMT.	Car dependence would be total	Highly car dependent
101	6.4	Proposed MSDF Policy: Work towards and maintain – for each settlement in the municipality – a compact form and structure to achieve better efficiency in service delivery and resource use, the viability of public and NMT, and facilitate inclusion, integration, and entrepreneurship development.	No compaction, no efficiency, no public transport or NMT compatibility	Ditto
101	6.4	Proposed MSDF Policy: Adopt a conservative view towards the extension of existing urban edges over the MSDF period.	Would be non-conservative	Nonconservative
101	6.4	Proposed MSDF Policy: Support increased densities in new, infill, and redevelopment projects.	N/A	Would hence have to result in high-density infill

Page	Sect	MSDF text	Paradyskloof	Brandwacht
			Compatibility	Compatibility
101	6.4	Proposed MSDF Policy: Focus major development effort in SM on unlocking development in Klapmuts North and the Adam Tas Corridor (in Stellenbosch town).	At the opposite end	At the opposite end
		Urban Edge Guidelines: The function of an urban edge is two-fold, namely: * It is a growth management tool, used to limit sprawl and the outward growth of urban areas, in favour of densification and infill development, to ensure the more efficient use of resources and land within the urban area ; and * It is a conservation tool, used to exclude certain elements of the environment from the urban area, in order to protect or preserve it, or to discourage its development in the short and medium term, while the long term implications are uncertain.	Extension does not limit sprawl, does not exclude environment	

H Extracts from the Urban Edge Guidelines 2005

The text below represents exact quotes from the 2005 Urban Edge Guidelines. The item numbers shown are those of the Urban Edge Guidelines section numbers. Bold highlighting is ours.

> Exec Summary: An urban edge is a demarcated line to manage, direct and control the outer limits of development around an urban area. The intention of an urban edge is to establish limits beyond which urban development should not occur.
>
> Exec Summary: The field research however indicated that market pressure in many regions caused local authorities to approve land use applications that are in conflict with national and provincial planning policy and detrimentally affect the environment.
>
> Exec Summary: Urban edges are matters of regional significance and would therefore remain with the PG:WC for decisions.

1.3 **An urban edge in the context of this report is a defined line drawn around an urban area as a growth boundary, i.e. the outer limit of urban areas. . . .**

1.3 Definition of the Guideline For The Management Of Development On Mountains, Hills And Ridges Of The Western Cape (Directorate : Environmental Management, 2001): It is a demarcated line to manage, direct and control the outer limits of development. **The intention of the urban edge is to establish limits beyond which urban development should not be permitted.**

1.5 Stringent town planning regulation and control, e.g. regulating development densities and the location of new development, is seen as the most important contributing factor in the virtual elimination of urban sprawl in Britain (Geyer, 2002).

2.2 **There are two major categories of edges, namely hard and soft edges. . . . Soft edges have the potential to promote sprawl and the negative growth trends that need to be discouraged.**

3.1 [As the] criteria and issues to be considered are so divergent, a typical "checklist approach" would have to be used in determining which of the factors and issues are of relevance to a specific urban area.

3.1 [. . .] **urban growth far exceeds the natural population growth and the economic growth of these towns and areas.** The number and value of building plans has for example grown by 100 % year on year during the last two years in one of these towns, whereas the expansion of the town into the rural hinterland amounted to less than 15% growth. It is therefore obvious that the establishment of urban edges is an essential element in the planning of the Southern Cape urban areas in order to prevent continuous growth, mostly in linear format along the Garden Route and the sea.

3.3 Urban And Rural Use Definitions: . . . urban development includes all development of land where the primary use of the land is for the erection of structures . . . as opposed to the potential for use of the property with no building development.

3.3 The decision relating to smallholdings should be primarily based on the use of the property, i.e. for the generation of a primary income (urban agriculture or bona fide agricultural use) or whether it is merely a low density residential use where the owner of the property generates a primary income by working elsewhere and augmenting the primary income by the keeping of live stock or the planting of crops. Smallholdings used for bona fide agricultural purposes would or should typically be excluded from the urban area by delineation of an urban edge.

3.4 Urban Edge Functions And Concepts: The purpose of an urban edge is to manage, direct and phase urban growth pro-actively and to protect environmental resources outside of the urban area. It must thus assist all role-players in achieving the "triple bottom line" goals of social, economic and environmental sustainability in development.

3.4 The function of an urban edge is two-fold, namely (1) It is a growth management tool, used to **limit sprawl** and the outward growth of urban areas, in favour of densification and infill development, to ensure the more efficient use of resources and land within the urban area ; and (2) it is a **conservation tool**, used to exclude certain elements of the environment from the urban area, in order to protect or preserve it, or to discourage its development in the short and medium term, while the long term implications are uncertain.

3.4 **[A soft edge] has however received much attention in literature and has been proven to be ineffective** and indeed a contributing factor to urban sprawl, as it encourages **leapfrog development** in the long term.

3.4 Ecological or biological diversity and conservation areas, proclaimed public nature reserves and heritage sites, protected natural environments and any other statutorily established sensitive environment conservation area, . . . seem to be more efficient as urban edges than any other land use. . . . It seems as if an urban edge would only be a long term edge if there are legislated grounds for the protection of the non-urban uses outside of the edge. If not, the edge seemingly becomes just another issue in the consideration of land use and development applications, dictated by market forces.

3.4 [**Reasons should be provided:**] An urban edge should not be defined as a simple continuous growth boundary, but rather **a combination of purpose drawn lines with fixed points. Over its entire length it must be determined in segments to achieve specific goals,** such as the conservation of environmental assets, promoting integration in the urban area, promoting growth in desirable areas, containing sprawl along major transport routes or limiting expansion beyond the reach of services infrastructure. The urban edge could thus form part of spatial development framework, as a clearly defined line on a map, **representing an identifiable line in the landscape.** In addition thereto, **the determinants relating to each segment should be indicated in the same document, as consideration of applications relating to that edge line would have to consider all the relevant factors, which would only be possible if the factors are clearly defined and shown.**

3.5 **Edge Determination And Management Criteria** (a selection)

- Prominent landform and character areas ;
- Valuable soils ;
- Hydrology (surface and ground water features) ;
- Ecological resources (aquatic and terrestrial) ;
- Protected areas (conservation sites) ;
- High intensity / potential agricultural resources ;
- Services infrastructure (barrier effect) ;
- Availability of developable land in urban area ;
- Visual impact ;
- Bio-regional spatial planning categories (core and buffer) ; and
- Density policy for residential development in rural towns.

3.5 [An urban edge] is not a line drawn around features excluded from development inside the larger urban area. . . . The following explanation and evaluation of the criteria and issues must generate an in depth debate of the case for inclusion or exclusion of certain areas or elements in the environment from the urban edge. It is suggested that the criteria and informants be used for the following purposes

- To determine where the urban edge should be located, often with serious consequences for integrated and continuous development, favouring the conservation of natural resources and **establishment of open space corridors.** The criteria would assist in the determination of the edge, by inclusion or exclusion of certain environmental features and in the manner in which the edge is determined in relation to the features.
- To support decisions on the distance between the existing development and the urban edge, i.e. the area allowed for urban growth outside of the current development.
- Consideration of applications for the expansion or amendment of the urban edge, subsequent to its determination, amongst others to determine a priority model for growth management.

3.5 **Criterion: Prominent landform and character areas**
Prominent landform and character areas. A mountain, hill or ridge is described as a physical landscape feature, elevated above the surrounding landscape. This includes the foot or base, slopes and crest of the mountain, hill or ridge.
The gradient and slope of a prominent landform must be considered in addition to the feature value thereof. Steep slopes are often valuable opportunities for high value development. The cost of development and maintenance of the services on steep slopes however detract from the attraction thereof from an authority perspective. Moreover, development on steep slopes often detracts from the aesthetic appeal of the environment and destroys natural habitat not affected by farming activities.

3.5 A natural area is defined as an area that is characterised by undisturbed natural conditions. Such areas would typically comprise mainly indigenous species (flora and fauna). They may include areas that are infested with alien vegetation, as there is potential to rehabilitate back to predominantly indigenous vegetation. In general natural areas can be expected to be of high conservation value because of their biophysical characteristics and due to their scenic/aesthetic worth.

3.5 **Criterion: Valuable soils and High intensity / potential agricultural resources**
Roughly 3% of the soil in South Africa or 3,6 million hectares can be classified as high-potential agricultural land. There is however a component of this land, which, because of the specific combination of soil, climate and crop, can be, classified as "unique" land where viable sustainable farming can exist, for example the Hex River Valley, which is world renowned for its export table grape production. The jealous protection of high-potential and unique agricultural land against any change of land use, is of utmost importance for sustainable agricultural production (Manager : Land Use And Soil Management (as delegate of the Minister Of Agriculture), 2004). See Figure 5

3.5 **Criterion: Hydrology (surface and ground water features)**

The riparian zones of rivers are of the utmost importance in river conservation. Riparian zones form that part of the catchment that directly affect the river ecosystem and has an effect on the quantity and quality of stream flow. The vegetation in the riparian zone supplies food to the aquatic fauna, controls the drainage of water, nutrients and other minerals to the stream, provides shade to decrease the harmful effects of warm water on the biota and stabilises the stream banks, thereby keeping the water silt-free. Many uses, such as agriculture, forestry, urban and tourism development contribute towards disturbance of water bodies and more specifically rivers and riparian zones. Modifying natural watercourses by the removal or destruction of riparian vegetation can rapidly bring about the collapse of the stream system and reduce it to an unattractive drainage system that merely serves to dispose of polluted water and topsoil into estuaries and the ocean (Department of Water Affairs and Forestry, 1999).

Wetlands are as important as river systems. ...

The presence of water is often an unreliable indicator of wetlands, thus the soil morphology and / or vegetation would have to be used to determine whether an area is a wetland or not. The hydrology, soils and vegetation generally change gradually from the outside to the inside of a wetland. Thus, the boundary of the wetland is often not apparent and the precautionary principle must be applied in determining the outer edges. The disruption of wetland functions has a high cost to the environment. The effects of wetland destruction are measured economically, socially and ecologically. ...

Wetlands also play a significant role in flood regulation and groundwater recharge. They are important as breeding and staging areas for migratory birds, as spawning and nursery grounds for fish and as habitat for a great many invertebrates, reptiles, amphibians and plants. Wetlands play an essential role in maintaining wildlife populations, providing key habitat for a diverse fauna and flora. Wetlands are home to about one third of the wildlife species that have been identified as endangered, threatened or rare. Wetlands also support substantial tourism and recreational opportunities, such as hunting, fishing, bird watching and nature photography. ...

Another issue in the consideration of hydrological systems is the proximity of urban development to the coast and /or hydrological systems.

3.5 **Criterion: Ecological resources (aquatic and terrestrial)**

Ecological resources such as water, land, vegetation, wildlife and minerals are the basis of economic activity and often the grounds for the establishment of urban areas. ...

Biological diversity or biodiversity as it is mostly referred to, is the collection all living organisms in the environment. As all organisms have genetic differences, it is important to preserve as wide a genetic pool as possible, to ensure the continued presence of life for as long as possible. The value of biodiversity to the environment and more particularly humans can be measured in the intrinsic value through its mere existence and use value for medicinal, research and sustenance purposes. In order to achieve the highest diversity, the largest possible collection of living organisms needs protection and preservation in the environment, as an ecosystem.

It is essential to consider the proximity of development to the coast and /or hydrological resources, as mentioned above. The nature of the fauna and flora, in terms of sensitivity and rarity, should guide the location and intensity of development in proximity of aquatic resources. Sensitive and rare collections of living organisms should not isolated by development. They should rather form part of a wider biodiversity network where natural migration is not inhibited, which suggests exclusion of such ecosystems from the urban area.

3.5 **Criterion: Protected areas (conservation sites)**: [This is not applicable at present, but the possibility of declaring parts as protected areas may not be pre-empted by earlier urban edge changes]

Inclusion of protected areas in the urban edge reduces opportunities for later expansion and the establishment of biodiversity corridors. Surrounding it with development puts pressure on the conservation area and often decreases access thereto, e.g. if erven back onto it.

3.5 **Criterion: Services infrastructure (barrier effect)**

Railway lines, inaccessible and higher order roads (freeways and elevated roads), waste water treat-

ment works and solid waste disposal sites are examples of the services infrastructure that create barriers to development and are often undesirable within urban areas. While it is acknowledged that elements of transport infrastructure offer as many opportunities as it creates buffers, it is also recorded in literature that **these infrastructure elements, when included into the urban areas, hasten urban expansion and promote growth.**

Waste water treatment works, solid waste disposal sites and bulk reservoirs also create buffers and, when surrounded by urban development, **cause nuisances, either for the surrounding residents and land owners or for the service providers.** Odours, periodic upgrading of the bulk connections, noise and the use of hazardous substances **should cause these uses to be excluded from the edge, to form part of a biodiversity network or at least an open space network if it has no biophysical value.**

3.5 **Criterion: Services infrastructure (capacity and reach)** It is important to recognise that all development, inclusive of services infrastructure development, must be socially responsible and it should stimulate equitable and sustainable development. However, it should also be environmentally and economically sound. All costs associated with the provision of infrastructure services, direct and indirect, need detailed assessment when considering edge development or the establishment of urban edges.

3.5 **Criterion: Vacant / under-utilised land in urban area and Availability of developable land in urban area**

There is also an added cost to the interaction between the productive farms in the rural areas and the markets in the urban areas, as the distance between the two increases as the urban area expands. The loss of resources, such as usable agricultural land, biodiversity and other environmental assets also has a cost. . . . There is however also a benefit to the availability of vacant and under-utilised land, as it contributes to the reduction in the cost of land and accommodation in urban areas.

3.5 **Criterion: Higher order roads, access routes and transport infrastructure**

Urban uses tend to spread along roads, where the visibility attracts passing customers, especially along tourist routes, where the urban uses also detract from the aesthetic quality of the area that is the reason for it being a tourist route. The urban edge should be used to deter such undesirable uses.

3.5 **Criterion: Cadastral boundaries of adjoining land units** The environmental features of the land, rather than the ownership or cadastral boundaries, determine where the edge should be drawn. See Figure 7

3.5 **Criterion: Growth requirements (over a predetermined period)**

(Stellenbosch: proximity of protected areas and urban development; hence the "extension distance" of the urban edge in such regions should be zero or extremely limited)]

3.5 **Criterion: Land use applications for new development**

Does the market dictate where development occurs, or does forward planning? If the market dictates, then the urban edge would be a flexible line with no real purpose. If pro-active planning is the determining factor, then an urban edge has real value in achieving the goals set out above.

3.5 **Criterion: Visual impact**

The value of the environment is often under-estimated from a visual perspective. It is the visual quality of the environment that, to a large degree, generates the attraction for the tourism industry and draws people to certain areas as desired locations for living a lifestyle out of the large cities and densely developed urban areas.

(The visual impact may not be limited to the perspective from the R44. Visual impact would be overwhelming from the perspective of the surrounding nature area which is essential to the tourism sector]

3.5 **Criterion: Cultural / heritage resource areas**

3.5 **Criterion: Ownership of land and existing land use rights**
Many land owners acquired land at the urban edge solely for development purposes. Large tracts of land around urban areas are owned by local authorities and in some instances the state. Such land is often included in the urban edge by default, as it is not productively utilised for agricultural purposes and the use thereof causes its degradation. The situation of the land might however not be in line with current planning and development principles, and yet it is mostly included, as its disposal or continued use for agricultural or other non-urban purposes would not generate the best income.
There are also numerous examples of historic land use authorisations that have remained undeveloped or partially developed, outside of the urban fringe. Inclusion of this land in the urban edge would probably satisfy the owner, but would not necessarily comply with current best practice. Thus, ownership and existing land use rights need serious consideration as a criterion relative to the other criteria when determining the edge. The ownership of land should be one of the lesser criteria in determining the edge. Undeveloped land with historic rights should be treated likewise.

3.5 **Criterion: Informal settlements**
Informal settlements and subsidy housing schemes have traditionally occurred outside of current urban areas as a result of the old segregation policies of the country.

3.5 **Criterion: Urban agriculture and small scale farming** urban agriculture still plays a significant role in the community and this leads to extremely low development densities. Many of the small towns and urban areas like Genadendal, Middleton, Melkhoutfontein, Suurbraak, Elim, Zoar, Wupperthal, Mamre and Prince Alfred Hamlet rely strongly on the ability of the residents to produce their own food for sustenance and to produce for small markets or co-operatively for larger markets. Erf sizes typically vary from a 1,000 to 30,000 square metres in these towns. As a result, the development densities of these urban areas are extremely low and they are inefficient from an urban services perspective. These towns however have other strengths and benefits that can not be measured in urban servicing terms. The social value of the unique land use probably far outweighs the costs of the inefficiency from a services perspective.
(Jamestown]

3.5 **Density policy for residential development in rural towns**
There is a need to increase densities in select areas within the towns and cities. The normal planning principles and development approach determine the most suitable locations and means of achieving the goals of densification. For purposes of this study, the criterion simply needs highlighting. **Growth across an urban edge or outside of an existing urban area should not be permitted unless the development density of the development is in keeping with the trend to higher densities,** which, together with the principle of grading densities down from the central areas to the edges, means that there must be an increase in residential densities in selected and clearly demarcated areas.

3.5 **Criterion: Bio-regional spatial planning categories (core and buffer)**
The bio-regional planning manual provides a good background to the value of various biomes (a group of ecosystems) when considering urban edges. It also determines spatial planning categories (SPC's), two of which are core and buffer areas. Core areas indicate wilderness areas, where no development should occur. **Buffers areas are in support of the core areas and are also not intended for development.** As a result, the indication of bio-regional spatial planning categories would effect urban edges and cognisance should be taken of the SPC's, especially in the coastal and mountainous regions.

3.6 The purpose thereof, namely to direct and phase urban growth. . . .
Priority ranking of Urban Edge line segments:
The edge line segments must be ranked in terms of priority for preservation of the edge. The priority is thus linked to the maintenance of the edge over the long term. A high priority edge is one that must be retained at all possible cost, whereas a low priority edge would be one that could be

amended in response to a suitable application or in the course of a spatial development framework planning process. The prioritisation must be done in consultation with all the major role-players in the planning process, as it relies on the relative significance and sustainability of the rural or non-urban use on the outside of the edge. It requires amongst others comparison of the agricultural potential of farms and farming activities, comparison of the aesthetic quality of various places and environments, the biological diversity and conservation value of different sites, the visual quality and hydrological situation of the rural area surrounding the edge and the cost-benefit assessment of development scenarios and the preservation of the rural use and relative assessment of all land outside of the edge in terms of the other edge determination criteria discussed above.

3.6 **Use up available land first**
As a growth management tool, used amongst others to limit sprawl and promote densification and infill development, the local authority must identify land for alternative development inside of the urban edge. Thus, if there is suitable land for development inside of the edge, then the edge should be retained until the available land has been utilised.

3.6 **Proactive rezoning**
The urban agricultural uses in the urban areas referred to above are the prime example. These should all be rezoned to a suitable agricultural zoning, which would indicate that it is not a low density residential use area and therefore not suitable for redevelopment and infill. On the other hand, the local authority should indicate commonage inside an urban area as suitable for development and zone it accordingly,...
(Jamestown)

3.6 **Infill development** The local authority should indicate such land as an opportunity for infill development to redress the previous planning practices if there are no outstanding land claims applicable to the land. The nature of the infill development should take cognisance of the surrounding development, but primarily focus on returning the land to the communities that previously occupied it and were forcibly removed.

3.6 Access to natural amenities: As a tool to direct and phase urban growth, local authorities must also use the urban edge to re-establish and create opportunities for access to natural amenities, where current development trends exclude access to natural amenities.... **The linear development of urban areas along the coastal areas, rivers, water bodies and mountains must be prevented by the establishment of urban edges. Moreover, the urban edges should create suitable buffers between the amenities and the urban development that does occur in proximity of any amenity, which is in keeping with the criteria for the establishment of urban edges (exclusion of rivers, prominent landforms, and others) discussed above.**

3.6 **Special development areas:**
The purpose of the urban edge could be to cause urban restructuring by drawing close, high priority, edges where possible around the furthest sides of the neighbourhoods and low priority edges along the facing sides of the neighbourhoods, if any edges are required, thus promoting growth between the neighbourhoods as a priority. Likewise, the edge could be used for the establishment of conservation areas, i.e. where they do not exist, but where there are grounds for the establishment of conservation areas. Where ecologically sensitive areas exist outside of the urban edge, causing a buffer between land that is suitable for development and the urban area, a high priority edge must be drawn either side of the sensitive area, or an ecologically determined edge development with sufficiently wide and interconnected corridors leading to and along the ecologically sensitive area must be permitted. In the one instance the edge would cause the sensitive and the suitable (developable) land to be excluded from the urban area or leapfrog development. In this case the land would remain in private ownership and largely inaccessible, often with detrimental effect on the ecological value thereof. The alternative is to include all the land in the edge, but with suitable planning designations, with the purpose of conserving the ecological asset value thereof. Controlled access to land that is of conservation significance is often its saving grace. The granting of development approvals on the less

sensitive portions of private land that is largely worthy of conservation, in order to raise funds for the conservation and the incorporation of the sensitive sections into a larger biodiversity network, could contribute to the conservation thereof. If it is accessible to an interested public, the conservation value thereof increases and this would only become possible by inclusion of the land in the urban edge or the acquisition thereof by a public conservation body.

4.1 the management guidelines relating to the urban edges of all the urban areas must comply with the policy contained in the Western Cape Provincial Spatial Development Framework

5.1 Conclusion: Urban edge guidelines. The development trends are probably not sustainable, as it causes losses in agriculture, which is a large employment sector, and it detracts from the natural environment, which is a major attraction in the tourism and the development sectors. Low density sprawl and outward growth of urban areas also increases the cost of living for many residents while the cost of service provision to these residents is considerably higher than where it would be in more central locations. These trends therefore need to be reversed or managed. . . . **These policies and guidelines therefore aim to reduce urban development on land that is better suited for conservation as environmental assets and resources.**

5.4 **Set out priorities explicitly**: The urban edge must be indicated on a detailed cadastral and topographic map as part of a spatial development framework, together with the table setting out the priorities, purpose, use inside and outside of the edge for each sector of the edge, i.e. for each part of the line. Where there are edge management areas, these also need to be related to the edge sectors. **The distance of the line from the current built or developed area must be explained in terms of the need for space as an indication of the growth rate over a five-year period, together with a motivation of what alternative options, including infill and densification have been considered and why these are or are not suitable.**

6. Recommendations: the first recommendation is that urban edges must be incorporated into legislation

6.1.1 Urban edges must not be universally determined in a top down approach and must not be determined through legislative processes. Legislation must only cause urban edges to be determined for every urban area in the Western Cape.

6.1.3 **Urban edges must be determined, delineated and defined by following the guidelines set out hereafter. The edge must be determined to:**

- Exclude prominent landforms and environmental character areas from the urban area ;
- Exclude valuable soils for agricultural purposes ;
- Exclude valuable soils for mining purposes ;
- Exclude surface and ground water resources that could be used to produce potable water ;
- Exclude surface and ground water features;
- Exclude ecological resources and establishing suitable biodiversity corridors to link resource areas;
- Exclude all statutorily declared, proclaimed and protected natural areas;
- Exclude high intensity use and high potential agricultural resources and activity areas;
- Exclude scenic routes and routes of tourism significance;
- Exclude cultural and heritage resource areas and sites; and
- Exclude areas that have visual sensitivity, skylines, mountainsides, ridgelines and hilltops.

6.1.3 Services infrastructure that could impact on development, such as waste water treatment works and solid waste disposal sites must be excluded from the urban area and suitable buffers around the infrastructure and corridors to the urban edge must be established if long term development approaches such infrastructure.

6.1.3 Allowing for proven growth requirements outside of the edge for a minimum five and maximum eight year period, in keeping with the requirement for infill and densification rather than and before outward growth.

6.1.3 Utilising topographical features, identifiable lines and definable lines with co-ordinates rather than the cadastral boundaries of adjoining land units when delineating the urban edge.

6.1.3 **Ignoring land use applications for new development and insisting on development to progress in keeping with the priorities determined for the amendment of the urban edge, unless the benefits of the proposed use are proven to outweigh the short and long term costs and the development would make a significant contribution to the social, economic and environmental goals for the area.**

6.1.3 **Ignoring ownership of land and existing land use rights and establishing urban edges in keeping with the environmental and social guidelines.**

6.1.3 Creation of opportunities to increase public access to natural amenities and prevent linear sprawl along natural amenities such as mountainsides, water bodies and the coast.

6.1.3 **Maintenance of the three "rural" Bio-regional Spatial Planning Categories (core, buffer and agricultural) outside of the edge.**

6.1.3 **Identifying land for specific development inside the urban area and retaining the edge until the available land has been fully utilised for the specific use.**

6.2.2 Urban edge amendments that do not occur in keeping with the regional growth potential assessment of the urban area and the priority ranking of the edge segments, should be assessed at a level of strategic planning, i.e. applications must be subject to Strategic Environmental Assessment and amendment of the applicable Spatial Development Framework (SDF) and it must incorporate a cost-benefit analysis of the development. **(In other words: as the Brandwacht and Paradyskloof amendments do NOT occur in keeping with the regional growth potential, they must be assessed at a level of strategic planning.)**