# Annexure 6: Bergivier Spatial Development Framework

## Spatial Planning Categories for the riparian farms south of the Berg River[1]

**Background**

The Project Team appointed by the Bergrivier Municipality to review the Bergrivier Spatial Development Framework (BSDF) was instructed to formulate spatial planning categories (SPC) for the riparian farms on the southern side of the Berg River from the rivermouth south-eastwards up to and including Farm 62/4.

The area concerned previously constituted an extension of the Saldanha Bay municipal area up to the Berg River. The farms to the south of the Berg River are a continuation of land with similar characteristics to those located in the Saldanha Bay municipal area that also function in economic and environmental (biodiversity) unison. The implementation of the spatial planning categories developed as part of the Saldanha Bay Spatial Development Framework, was considered and deemed appropriate subject to a few amendment. The detailed description of these SPCs was kindly provided by Urban Dynamics Western Cape INC. as primary consultants to the Saldanha Bay SDF.

**It is with gratitude that we acknowledge this gesture.**

The SPCs as prepared for the Saldanha Bay SDF were slightly amended to cater for the specific characteristics and qualities of the above-mentioned riparian farms.

**Bioregional Planning Approach**

Bioregional planning is an internationally recognised planning concept aimed at achieving sustainable development. Bioregional planning refers to land use planning and management that promotes sustainable development by recognising the relationship between, and giving practical effect to, environmental integrity, human well-being and economic efficiency within a defined geographic space. In practical terms, bioregional planning refers to the matching of human settlement and land use pattern with the parameters of ecological systems, and the planning design and development of the human made environment within these parameters in a manner that ensures environmental sustainability (Dennis Moss Partnership Inc 2003:47).

**Overarching Policies and Strategies**

| No | Policy Statement (P) or Strategy (S) |
|---|---|
| **P1.1** | Apply the policies and strategies formulated for each SPC to land use applications and for decision making purposes. |
| **P1.2** | For the purposes of any development within an area indicated as Conservation I or II the applicant / owner should be required to provide adequate proof to the satisfaction of Bergrivier Municipality and responsible government departments (ie Department of Agriculture, CapeNature) that the area is not regarded as a Critical Biodiversity Area, or is not Critically Endangered, Endangered and/or of other ecological significance. |
| **P1.3** | For all land use applications on land zoned as Agriculture and applications in terms of the Land Use Planning Ordinance 15 of 1985, the Subdivision of Agricultural Land Act 70 of 1970, the Conservation of Agricultural Resources Act 43 of 1983 or any other application as determined by the |

[1] Obtained from the Saldanha Bay Spatial development Framework, Urban Dynamics Western Cape INC.

| | |
|---|---|
| | relevant Department of Agriculture, the Municipality should determine whether applicants will be required to submit simultaneously a land use plan indicating the application of the bioregional SPC's for the farming unit. Such a requirement should be determined on the basis of the sensitivity and vulnerability of the area concerned. |
| **S1.1** | Establish an Environmental Management Committee (EMC) to advise the Municipality on change in land use issues and sound environmental management. This EMC should consist of representatives from: CapeNature (Land Use Advisory Unit representative and the regional ecologist), the Department of Agriculture (Western Cape), Bergrivier Municipality (environmental officer and planner), and local environmental groups. |
| **S1.2** | The EMC should monitor compliance with the policies and strategies of this SDF on a regular basis, to ensure sound implementation. |

The area consisting of the riparian farms on the southern side of the Berg River is divided into a number of SPCs which form the basis for planning, land use and management.

| Land-use classification | Land-use |
|---|---|
| Conservation 1 | • Statutory conservation areas.<br>• State-owned parts of Mountain Catchment Areas, which provide valuable ecosystem services. |
| Conservation II | • Areas categorised as a ***Critically Biodiversity Area*** (both terrestrial and aquatic).<br>• Land within Mountain Catchment Areas in private ownership which provides important ecosystem services.<br>• Mountainous areas or areas on steep slopes unsuitable for development, and having high landscape, visual and / or heritage value, and / or providing an important ecosystem service (eg coastal protection or buffer, etc).<br>• Natural areas of high connectivity value with protected, Critically Endangered or Endangered areas outside the municipal area.<br>• Floodplains, wetlands, river corridors and riparian areas within these categories. |
| Conservation-Agriculture Buffer | • Untransformed areas that are not categorised as a Critical Biodiversity Area.<br>• Natural areas within the municipal boundary in close proximity to Conservation 1 or Conservation II SPCs, which provide a buffering role to those SPCs.<br>• Tracts of habitat within the municipal boundary which play a critical role in maintaining connectivity between fragments of threatened habitat.<br>• Natural areas or partly transformed areas outside of core agriculture, urban or conservation SPCs, which link up with natural areas beyond the municipal boundary.<br>• Formally demarcated 'buffer' areas of Biosphere Reserves.<br>• Floodplains, wetlands, river corridors and riparian areas within this SPC. |
| Core Agriculture | • Largely transformed areas.<br>• Un-transformed areas categorised either as Critically Endangered or Endangered ecosystems, or ecosystems which are not currently under threat.<br>• Floodplains, wetlands and riparian areas within this SPC. |
| Agricultural and Eco-tourism Amenities | • Farmstead and associated buildings.<br>• Tourism related buildings and infrastructure |
| Core Urban Area | • Urban Areas. |

1. Conservation I

For many years this specific area south of the Berg River has been, and still is, intensively and extensively utilized for farming, salt mining and also previously for a fish factory, and no statutory conservation areas or state-owned parts of Mountain Catchment Areas, which provide valuable ecosystem services, occur here. Thus this area does not include any areas that can be categorized as Conservation I. We nevertheless include the description for this SPC for the sake of completeness.

The Conservation I SPC represents areas of the highest ecosystem status. This SPC includes unique areas, areas which are irreplaceable in terms of achieving national biodiversity conservation objectives, and/or areas which provide valuable ***ecosystem services*** in terms of, particularly, maintaining water production and/or quality, protecting soils, regulating floods, buffering coastal areas, and land that is in Public ownership.

*i.* **Would include:**

- Statutory conservation areas.
- State-owned parts of Mountain Catchment Areas, which provide valuable ecosystem services.

*ii.* **Could allow:**

- Low intensity, non-consumptive, nature-based recreation.
- Harvest of natural resources on a sustainable basis, provided that such use is compatible with this area.
- Education.
- Research.

*iii.* **Policies:**

- Prohibit transformation of areas of Critically Endangered or Endangered natural vegetation[2].
- Protect the biodiversity and ecosystem functioning of the Conservation Area.
- Protect the distinctive landscape character of the area.
- Promote sound management of natural resources.
- Permit use of natural resources if and only if such use would be sustainable and would not jeopardise biodiversity conservation.
- Safeguard areas identified as important for key ecological and evolutionary processes[3].
- Eradicate alien invasive species.
- Promote the restoration of degraded or disturbed areas.
- Promote awareness of the significance and uniqueness of natural vegetation and ecosystems of the area amongst local landowners and communities, visitors and tourists.

*iv.* **Strategies:**

SPC 1.1 No transformation of existing areas of Critically Endangered or Endangered natural vegetation.

2. South Africa is currently preparing a National Biodiversity Strategy and Action Plan, part of which comprises a National Spatial Biodiversity Assessment which evaluates the conservation status of ecosystems and classifies them as being either 'critically endangered', 'endangered', 'vulnerable' or 'least threatened'. This Assessment will form the basis for a national biodiversity framework and for the protection of threatened ecosystems in terms of the Biodiversity Act 10 of 2004.

3. These key ecological processes have been identified as part of the Cape Lowlands (Renosterveld) Project.

SPC 1.2 Natural resources should be soundly managed to ensure biodiversity conservation and the maintenance of ecological corridors.

SPC 1.3 Encourage the transfer of national state land to local or provincial conservation departments to enable effective management.

SPC 1.4 Land reform processes should not undermine or be inconsistent with the policies or strategies of this spatial planning category.

SPC 1.5 Natural resources could be used, harvested or extracted, if and only if such use/harvest or extraction is compatible with the area and would be sustainable.

SPC 1.6 Degraded or disturbed areas should be cleared of invasive alien plants and restored.

SPC 1.7 Where development in this SPC is being considered, a full botanical assessment should be carried out by a specialist botanist approved by the Land Use Advisory Unit of CapeNature. This assessment should focus on determining the significance of the site (presence of Critically Endangered or Endangered vegetation) and its broader context with regard to key ecological and evolutionary processes. Specific attention should be paid to the connectivity of the site with other sites of similar natural vegetation in relatively close proximity. It is central to the conservation of Critically Endangered or Endangered vegetation or ecosystems that clusters of remnant sites, or a series of remnants within close proximity, are conserved to enable their persistence and protect genetic variability.

The findings of the assessment should inform (ie establish opportunities for or constraints to) further planning.

SPC 1.8 Development should not take place in ecologically sensitive areas, eg floodplains, steep slopes, wetland or drainage areas, or mobile dunes or driftsands.

SPC 1.9 All applications for changes in land use should be referred to the Environmental Management Committee for evaluation in terms of the policies contained in this SDF.

SPC 1.10 CapeNature and the Municipality should disseminate information on the uniqueness and significance of the indigenous vegetation and ecosystems in the Sub-region to local landowners and communities, visitors and tourists.

**2. Conservation II**

In this area the Conservation II SPC is represented by two distinct sub-categories *i.e.* Conservation II: Terrestrial and Conservation II: Aquatic.

The Conservation II SPC represents areas of the highest ecosystem status. Includes unique areas, relatively large areas, clustered and/or discrete areas which are irreplaceable in terms of achieving national biodiversity conservation objectives, and/or areas which provide valuable ***ecosystem services*** in terms of, particularly, maintaining water production and/or quality, protecting soils, regulating floods, buffering coastal areas. Land is in ***private ownership***.

*i.* **Would include:**

- Areas categorised as a ***Critically Biodiversity Area*** (both terrestrial and aquatic).

- Land within Mountain Catchment Areas in private ownership which provides important ecosystem services.
- Mountainous areas or areas on steep slopes unsuitable for development, and having high landscape, visual and / or heritage value, and / or providing an important ecosystem service (eg coastal protection or buffer, etc).
- Natural areas of high connectivity value with protected, Critically Endangered or Endangered areas outside the municipal area.
- Floodplains, wetlands, river corridors and riparian areas within these categories.

*ii.* **Could allow:**

- Low intensity, non-consumptive nature-based recreation.
- Harvest of natural resources on a sustainable basis, provided that such use is compatible with this area.
- Extensive grazing at an appropriate stocking rate.
- Education.
- Research.

*iii.* **Policies:**

- Prohibit transformation of Critical Biodiversity Areas.
- Prohibit transformation of Critically Endangered or Endangered natural vegetation.
- Protect biodiversity and ecosystem functioning through sound management and eradication of alien invasive plants.
- Protect the distinctive landscape character of the area.
- Promote sound management of natural resources.
- Permit use of natural resources if and only if such use would be sustainable and would not jeopardise biodiversity conservation.
- Safeguard areas identified as important for key ecological and evolutionary processes.
- Eradicate alien invasive species.
- Prohibit subdivision of agricultural land.
- Promote rehabilitation of degraded or disturbed areas.
- Promote awareness of the significance and uniqueness of natural vegetation and ecosystems of the area amongst local landowners and communities, visitors and tourists.

*iv.* **Strategies:**

SPC 2.1 No transformation of Critical Biodiversity Areas and Critically Endangered or Endangered natural areas by, amongst others, cutting, clearing or ploughing of indigenous veld for cultivation, planting of exotic trees, mining, quarrying or waste disposal, erection of infrastructure, or other development, to be permitted.

SPC 2.2 Where cultivation of virgin land, or other development which affects natural vegetation in this SPC is being considered, a full botanical assessment should be carried out by a specialist botanist approved by the Land Use Advisory Unit of CapeNature. This assessment should focus on determining the significance of the site (presence of Critically Endangered or Endangered vegetation) and its broader context with regard to key ecological and evolutionary processes. Specific attention should be paid to the connectivity of the site with other sites of similar natural vegetation in relatively close proximity. It is central to the conservation of Critically Endangered or Endangered vegetation or

ecosystems that clusters of remnant sites, or a series of remnants within close proximity, linked by natural vegetation corridors, are conserved to enable their persistence and protect genetic variability.

The findings of the botanical assessment should inform (ie establish opportunities or constraints to) further planning and environmental assessment, through due consideration of alternatives, specifically with regard to avoiding irreversible or significant impacts, through the location, siting, scale, design, management and/or other appropriate means.

Where impacts on a threatened ecosystem would be unavoidable, in-kind offsets for residual impacts should be required in compensation. That is, land areas containing the same quality of habitat and composition of species, of an appropriate size determined by CapeNature, should be set aside for conservation in perpetuity.

SPC 2.3 Any application for the cultivation of natural veld, development on or subdivision of privately owned land within this area, involving more than a primary dwelling, should be subject to the Integrated Environmental Management procedure, and environmental assessment (including the consideration of alternatives and public participation) at an appropriate level of detail.

SPC 2.4 All applications for changes in land use should be referred to the Environmental Management Committee for evaluation in terms of the policies contained in this SDF.

SPC 2.5 No introduction of plants for commercial use should be permitted.

SPC 2.6 Land in this SPC should be managed in such a way as to ensure that remaining areas of natural veld, and areas which support key ecological and evolutionary processes are conserved for future generations. Specifically, such aspects as the fire regime, eradication of invasive alien plants, rehabilitation of disturbed or degraded areas, and use of biocides and fertilizers, should be managed strictly in accordance with advice from CapeNature and/or other competent bodies and/or persons.

Degraded areas should be restored.

SPC 2.7 Applications for subdivision of agricultural land should be rejected.

SPC 2.8 Natural resources could be used, harvested or extracted [only where such use/harvest or extraction is compatible with the area] on a sustainable basis, drawing on reliable research, advice from CapeNature and other competent bodies and/or persons, and should incorporate sound management and appropriate monitoring. Such uses could include sustainable harvest of wildflowers or indigenous plant material, as well as extensive game farming.

SPC 2.9 Any introduction of game animals or fish to the area, or harvest or extraction of indigenous plants or animals, should be subject to consent and management conditions from CapeNature.

SPC 2.10 Development should not take place in ecologically sensitive areas, eg floodplains, steep slopes, wetland or drainage areas, or mobile dunes or driftsands.

SPC 2.11 Establish a fund to assist private landowners in eradicating invasive alien vegetation, and/or promote eradication of invasive alien vegetation through municipal valuation or rate retrieval mechanisms.

SPC 2.12 Promote the incorporation of portions of land containing Critically Endangered or Endangered natural vegetation preferably into areas managed under Co-operation or other Stewardship Agreements with CapeNature (eg Contract Nature Reserve, Co-operation Agreement, Conservation Area).

SPC 2.13 Where rights to cultivate virgin land exist on remaining areas of Critically Endangered or Endangered natural vegetation, due consideration should be given to the possibility of land swaps with other fallow agricultural land, or leasing arrangements, to enable conservation of these significant remnants.

SPC 2.14 Where mining rights exist and mining would result in transformation of remnant natural vegetation that is categorised as a Critical Biodiversity Area or as Critically Endangered or Endangered, every effort should be made to consider compensation or land swaps to avoid transforming this vegetation. Where such transformation cannot be prevented, stringent rehabilitation measures, monitoring and auditing should be essential, and the objective of rehabilitation should be to restore natural veld of the affected area. The professional input of a specialist ecologist or botanist with local knowledge and experience should be required in this regard.

SPC 2.15 Input by the Municipality to the preparation of an EMPR is considered essential, to ensure that such EMPR would be adequate in terms of the policies and strategies within this spatial planning category, and would be implemented.

SPC 2.16 The Municipality should establish mechanisms or a fund to assist in securing land swaps to prevent further transformation of natural areas. (eg transferable development rights).

SPC 2.17 CapeNature and the Municipality should disseminate information on the uniqueness and significance of the indigenous plants and ecosystems in the Sub-region to municipal officials, local landowners and communities, visitors and tourists.

SPC 2.18 Promote the establishment of Fire Protection Associations, and mechanisms to reinforce investment in sound fire management.

SPC 2.19 Grazing of livestock to be limited to the minimum specified carrying capacity (to be determined for each area by Department of Agriculture and CapeNature). For renosterveld areas, the suggested ratio is 1 (one) large stock unit/20 ha. Grazing management practices should be guided by the Environmental Management Committee.

SPC 2.20 Potentially viable and sustainable alternative uses of land for, amongst others, agricultural production, harvest and use of indigenous plants, agri-tourism and ecotourism, should be investigated in partnership with relevant agriculture and conservation agencies.

**3. Conservation-Agriculture Buffer**

Rural, modified landscapes of relatively high value in terms of achieving national objectives for biodiversity conservation, particularly in terms of maintaining ***ecological and evolutionary processes*** outside of the Conservation

SPCs, and safeguarding valuable ***ecosystem services*** such as production of harvestable goods, water production and/or protection of water quality, protecting soils, regulating floods, buffering coastal areas (etc). In addition, this SPC contributes to the protection of ***cultural assets*** (specifically landscapes of visual or heritage value).

These areas provide a buffer between the conservation and agriculture "core" areas, and represent ecological corridors, vegetation transition areas and/or important areas for delivery of ecosystem goods or services.

*i.* **Would include:**

- Untransformed areas that are not categorised as a Critical Biodiversity Area.
- Natural areas within the municipal boundary in close proximity to Conservation 1 or Conservation II SPCs, which provide a buffering role to those SPCs.
- Tracts of habitat within the municipal boundary which play a critical role in maintaining connectivity between fragments of threatened habitat.
- Natural areas or partly transformed areas outside of core agriculture, urban or conservation SPCs, which link up with natural areas beyond the municipal boundary.
- Formally demarcated 'buffer' areas of Biosphere Reserves.
- Floodplains, wetlands, river corridors and riparian areas within this SPC.

*ii.* **Could allow:**

- Limited cropping, orchards and other forms of farming, provided that such activities do not have a detrimental impact on key areas for ecological or evolutionary processes, or other dynamic or sensitive environments (eg mobile sands, wetlands, dunefields, floodplains, etc).
- Game-farming, extensive grazing.
- Sustainable harvest of natural resources.
- Education, research.
- Small-scale ecotourism, nature-based recreation, farm-based tourism.

*iii.* **Policies:**

- Prohibit transformation of those areas of buffer which are situated in key ecological/evolutionary process areas, or in sensitive and/or dynamic environments, and/or which provide connectivity between protected or threatened ecosystems within the municipal boundary to similar systems beyond the municipal boundary.
- Allow only limited transformation of the Conservation-Agriculture Buffer area for agricultural or other development purposes, ensuring that such transformation would not jeopardise either the ecosystem status of habitat in this area or important ecological process areas.
- Allow low impact activities only.
- Protect the biodiversity, connectivity and ecosystem functioning in the Conservation areas through sound and supportive management practices in the Conservation-Agriculture Buffer area, as prescribed by CapeNature.
- Protect the distinctive landscape character of the area.
- Promote sustainable use and sound management of natural resources.
- Promote sustainable use of agricultural land in the Conservation-Agriculture Buffer area.
- Prospecting or mining to be granted in certain conditions.
- Promote efficient use of water resources and safeguard those ecosystems which regulate water yield and quality (wetlands, riparian systems, floodplains).

- Support the diversification of the agricultural sector in terms of agri-tourism and value adding in the Sub-region. Promote research into sustainable use and harvest of indigenous natural resources.
- Prohibit the subdivision of land currently used for agriculture, unless such subdivision is for the purposes of incorporating additional land into Conservation SPCs.
- Promote restoration (preferably), or rehabilitation, of degraded or disturbed areas.
- Promote eradication of alien invasive species.
- Promote awareness of the significance and uniqueness of natural vegetation and ecosystems of the area amongst local landowners and communities, visitors and tourists.

***Strategies:***

SPC 4.1 No transformation[4] or cultivation of existing natural areas which contain Critically Endangered remnants should be permitted.

No transformation of natural areas which provide connectivity between protected or threatened ecosystems within and beyond the municipal boundary, which are key ecological process areas and/or lie in sensitive and/or dynamic environments, should be permitted.

Only minimal impacts on natural areas containing Endangered ecosystems should be allowed, provided that in-kind offsets for residual impacts would be secured in compensation. That is, where a threatened ecosystem would be affected, land areas containing the same quality of habitat and composition of species, of an appropriate size determined by CapeNature, should be set aside for conservation in perpetuity.

Transformation of Vulnerable ecosystems should be permitted on a limited scale only, taking into account the cumulative effects on ecosystem status of allowing repeated transformation of areas within this ecosystem category.

SPC 3.2 Employ the principles of 'land care' and 'area-wide planning' as endorsed by the Department of Agriculture. Local planning processes used by this Department should help to identify focal areas for resource conservation efforts.

SPC 3.3 Applications to cultivate virgin land, or for other development which affects natural vegetation, should be rigorously evaluated to ensure that such land does not contain threatened (ie Critically Endangered, Endangered or Vulnerable) vegetation, does not lie within an important ecological or evolutionary process area, in an area that provides valuable ecosystem services (in terms of, particularly, maintaining water production and/or quality, protecting soils, regulating floods, buffering coastal areas), or which is dynamic or sensitive (wetland, floodplain, riparian area, dune or driftsands area, etc).

Where the proposed development of virgin land would affect one or more of the above, it is essential that an appropriate specialist/s approved by the Land Use Advisory Unit of CapeNature be involved. The specialist/s' findings should inform further planning and environmental assessment, through due consideration of alternatives, specifically with regard to avoiding irreversible or significant impacts, through the location, siting, scale, design, management and/or other appropriate means.

4. By, amongst others, cutting, clearing or ploughing of indigenous veld for cultivation, planting of exotic trees, mining, quarrying or waste disposal, erection of infrastructure or other development.

SPC 3.4 Development should not take place in ecologically sensitive areas, eg floodplains, steep slopes, wetland or drainage areas, or mobile dunes or driftsands.

SPC 3.5 Development applications should be subject to the Integrated Environmental Management procedure and environmental assessment (including the consideration of alternatives and public participation) at an appropriate level of detail.

SPC 3.6 All applications for changes in land use should be referred to the Environmental Management Committee for evaluation in terms of the policies contained in this SDF.

SPC 3.7 Where mining rights exist and mining would result in transformation of threatened ecosystems, offsets should be required. With regard to the transformed areas, stringent rehabilitation measures, monitoring and auditing should be essential, and the objective of rehabilitation should be to restore natural veld of the affected area. The professional input of a specialist botanist with local knowledge and experience, as well as from CapeNature, should be required in this regard.

Input by the Municipality to the preparation of an EMPR is considered essential, to ensure that such EMPR would be adequate in terms of the policies and strategies within this spatial planning category, and would be implemented.

Proposed new mining activities, which would not involve transformation of any natural vegetation, should be subject to environmental assessment, giving due consideration to the potential significance of associated impacts on biodiversity, ecological processes, ecosystem services, heritage and landscape character, and on the social and economic fabric of local communities. Provided that negative impacts could be managed and mitigated (including offsets) to make them acceptable, that there would be net benefits, and there is assurance of sound management and rehabilitation, mining should be allowed. Input by the Municipality to the environmental assessment conducted as part of the mining application, and to the preparation of an EMPR, is considered essential. Such input would help ensure that decision-making on mining is sound, and that the associated EMPR is adequate in terms of the policies and strategies within this spatial planning category, and would be implemented.

SPC 3.8 Marginal land with low productivity and viability should be rehabilitated to natural veld. The advice of CapeNature, the Department of Agriculture and other competent bodies should be sought in this regard.

SPC 3.9 Any development for which an Environmental Impact Assessment is required in terms of environmental legislation should include a baseline or sensitivity study of the affected area, and an assessment and evaluation of potentially significant impacts associated with the proposal and reasonable alternatives. At a minimum, formal comment from CapeNature should be obtained, and a specialist botanist with local knowledge and experience in the area should be involved in the EIA. Ways to avoid impacts on threatened ecosystems, or on important ecosystem services or ecological processes by changing the location, siting, scale, design, management and/or other appropriate means, should be clearly stated. Cumulative effects of the proposed development on ecosystem status should be taken into account within the municipal boundary.

SPC 3.10 Any development should be planned and implemented to have minimal negative impact on biodiversity, aesthetic, heritage or sense of place characteristics. Use of energy and water-efficient technologies should be promoted, as well as sound management and disposal of solid waste and sewage.

SPC 3.11 Natural resources should be soundly managed to ensure biodiversity conservation and the maintenance of ecological corridors. Specifically, such aspects as the fire regime, eradication of invasive alien plants, rehabilitation of disturbed or degraded areas, and use of biocides and fertilizers, should be managed strictly in accordance with advice from CapeNature and/or other competent bodies and/or persons.

SPC 3.12 Natural resources could be used, harvested or extracted [only where such use/harvest or extraction is compatible with the area] on a sustainable basis, drawing on reliable research, advice from CapeNature and other competent bodies and/or persons, and should incorporate sound management and appropriate monitoring. Such uses could include sustainable harvest of wildflowers or indigenous plant material, as well as extensive game farming.

SPC 3.13 Restore, or rehabilitate degraded areas and areas invaded by alien plants, to restore their biodiversity and ecosystem function, and maintain effective ecological corridors. Advice on appropriate rehabilitation methods should be obtained from CapeNature, provincial nature reserve staff, and other competent bodies and/or person/s.

SPC 3.14 Establish a trust fund to assist private landowners in eradicating invasive alien vegetation, and/or promote eradication of invasive alien vegetation through municipal valuation or rate retrieval mechanisms.

SPC 3.15 Any introduction of plants for commercial use, introduction of game animals or fish to the area, or harvest or extraction of indigenous plants or animals, should be subject to consent and management conditions from CapeNature.

SPC 3.16 Promote the incorporation of portions of land containing natural vegetation into Contract Nature Reserves, or areas managed under Stewardship or Co-operation Agreements with CapeNature.

SPC 3.17 CapeNature and the Municipality should disseminate information on the uniqueness and significance of the indigenous vegetation and ecosystems in the Sub-region to local landowners and communities, visitors and tourists.

SPC 3.18 Compliance with the policies of this SDF should be monitored by Department of Agriculture, CapeNature and the Municipality on a regular basis, encouraged and enforced.

SPC 3.19 Potentially viable and sustainable alternative uses of land for, amongst others, agricultural production, harvest and use of indigenous plants, agri-tourism and ecotourism, should be investigated in partnership with relevant agriculture and conservation agencies.

### 4. Core Agriculture

Rural landscapes of largely transformed areas which may contain remnants of Critically Endangered or Endangered natural vegetation, which have value in terms of food production, maintaining ecosystem services, and protecting heritage assets. Land is in ***private ownership***.

*i.* **Would include:**

- Largely transformed areas.
- Un-transformed areas categorised either as Critically Endangered or Endangered ecosystems, or ecosystems which are not currently under threat.
- Floodplains, wetlands and riparian areas within this SPC.

*ii.* **Could allow:**

- Limited expansion of existing cropping, commercial forestry, orchards and other forms of farming, subject to environmental and specialist botanical assessment.
- Game-farming, extensive grazing.
- Sustainable harvest of natural resources, subject to DWAF/CMA authorisation.
- Ecotourism, farm-based tourism.
- Mining and mineral extraction, subject to environmental and specialist botanical assessment.

*iii.* **Policies:**

- Prohibit transformation of Critically Endangered or Endangered natural vegetation.
- Safeguard areas identified as important for key ecological and evolutionary processes.
- Protect the distinctive landscape character of the area.
- Promote sustainable use and sound management of agricultural land and natural resources, employing the principles of "LandCare" as endorsed by the Department of Agriculture.
- Promote eradication of invasive alien vegetation.
- Protect sensitive areas such as wetlands, drainage lines and riparian areas.
- Promote efficient use of water resources.
- Promote rehabilitation or restoration of degraded or disturbed areas.
- Support the diversification of the agricultural sector in terms of tourism and value adding in the Sub-region.
- Retain areas of high primary production potential for agricultural use.
- Discourage the subdivision of land currently used for agriculture, except where it is consistent with the requirements as stipulated by Act 70 of 1970, and the guidelines for the sustainable sizes of farms required for the various types of agricultural produce, as determined by the Department of Agriculture.
- Permit mining and mineral extraction where it would not result in unacceptable negative impacts on local ecosystems or ecosystem services, and/or local communities.
- Promote awareness of the significance and uniqueness of natural vegetation and ecosystems of the area amongst local landowners and communities, visitors and tourists.

*iv.* **Strategies:**

SPC 4.1 No transformation of Critically Endangered or Endangered natural areas to be permitted.

SPC 4.2 Where the cultivation of virgin land, and/or other development which would affect natural vegetation, is being considered, a full botanical assessment should be carried out by a

specialist botanist with local knowledge and experience approved by the Land Use Advisory Unit of CapeNature. This assessment should focus on determining the significance of the site (presence of Critically Endangered or Endangered vegetation) and its broader context with regard to key ecological and evolutionary processes. Specific attention should be paid to the connectivity of the site with other sites of similar natural vegetation in relatively close proximity. It is central to the conservation of Critically Endangered or Endangered vegetation or ecosystems that clusters of remnant sites, or a series of remnants within close proximity, are conserved to enable their persistence and protect genetic variability.

The findings of the botanical assessment should inform (ie establish opportunities or constraints to) further planning and environmental assessment, through due consideration of alternatives, specifically with regard to avoiding irreversible or significant impacts through the location, siting, scale, design, management and/or other appropriate means.

SPC 4.3 Any application for the cultivation of natural veld, development on or subdivision of privately owned land within this area, involving more than a primary dwelling, should be subject to the Integrated Environmental Management procedure, and environmental assessment (including the consideration of alternatives and public participation) at an appropriate level of detail.

SPC 4.4 Applications to prospect or mine should be considered in the light of the findings of an environmental impact assessment, giving due consideration to the potential significance of associated impacts on biodiversity, ecosystem services, heritage and landscape character, and on the social and economic fabric of local communities. Provided that negative impacts could be managed and mitigated to make them insignificant, that there would be net benefits, and there is assurance of sound management and rehabilitation, mining should be allowed.

Input by the Municipality to the environmental assessment conducted as part of the mining application, and to the preparation of an EMPR, is considered essential. Such input would help ensure that decision-making on mining is sound, and that the associated EMPR is adequate in terms of the policies and strategies within this spatial planning category, and would be implemented.

SPC 4.5 Development should not take place in ecologically sensitive areas, eg floodplains, steep slopes, wetland or drainage areas, or mobile dunes or driftsands.

SPC 4.6 Any development should be planned and implemented to have negligible negative impact on biodiversity, aesthetic, heritage or sense of place characteristics. Use of energy and water-efficient technologies should be promoted, as well as sound management and disposal of solid waste and sewage.

SPC 4.7 All applications for changes in land use should be referred to the Environmental Management Committee for evaluation in terms of the policies contained in this SDF.

SPC 4.8 Applications for subdivision of agricultural land should be adjudicated by the Department of Agriculture in terms of the benefits that would accrue from such subdivision, ie conservation, enhanced agricultural development or the social-economic upliftment of communities. Subdivision should be consistent with the requirements as stipulated by Act

70 of 1970, and the guidelines for the sustainable sizes of farms required for the various types of agricultural produce, as determined by the Department of Agriculture.

SPC 4.9 Promote the incorporation of portions of land containing Critically Endangered or Endangered natural vegetation into areas managed under Co-operation or other Stewardship Agreements with CapeNature (eg Contract Nature Reserve, Co-operation Agreement, Conservation Area).

SPC 4.10 Employ the principles of "Land Care" and "Area-Wide Planning", as endorsed by the Department of Agriculture. Local planning processes used by this Department should help to identify focal areas for resource conservation efforts.

SPC 4.11 Land in this SPC should be managed in such a way as to ensure that remaining areas of natural veld, and areas which support key ecological and evolutionary processes are conserved for future generations. Specifically, such aspects as the fire regime, eradication of invasive alien plants, rehabilitation of disturbed or degraded areas, and use of biocides and fertilizers, should be managed strictly in accordance with advice from CapeNature and/or other competent bodies and/or persons.

SPC 4.12 Grazing of livestock to be limited to the minimum specified carrying capacity (to be determined for each area by Department of Agriculture and CapeNature). For renosterveld areas, the suggested ratio is 1 (one) large stock unit/20 ha. Grazing management practices should be guided by the Environmental Management Committee.

SPC 4.13 Land having high primary production potential should be retained for agricultural use and not sterilised by alternative forms of development.

SPC 4.14 Where rights to cultivate virgin land exist on remaining areas of Critically Endangered or Endangered natural vegetation, land swaps or leasing arrangements with owners of other fallow agricultural land should be thoroughly investigated to avoid such cultivation.

SPC 4.15 Where mining rights exist and mining would result in transformation of Critically Endangered or Endangered natural vegetation, every effort should be made to consider compensation or land swaps to avoid transforming natural vegetation. Where such transformation cannot be prevented, stringent rehabilitation measures, monitoring and auditing should be essential, and the objective of rehabilitation should be to restore natural veld of the affected area. The professional input of a specialist botanist with local knowledge and experience, as well as from CapeNature, should be required in this regard.

SPC 4.16 On marginal land with low productivity and viability, every effort should be made to rehabilitate such land to natural veld. The advice of CapeNature, the Department of Agriculture and other competent bodies should be sought in this regard.

SPC 4.17 Natural resources could be used, harvested or extracted [only where such use/harvest or extraction is compatible with the area] on a sustainable basis, drawing on reliable research, best practice, and advice from CapeNature and other competent bodies and/or persons, and should incorporate sound management and appropriate monitoring. Such uses could include sustainable harvest of wildflowers or indigenous plant material, as well as extensive game farming.

SPC 4.18 Rehabilitate or restore degraded areas and areas invaded by alien plants where such areas provide habitat for Critically Endangered or Endangered vegetation, link natural areas of conservation value, represent areas supporting key ecological and evolutionary processes, and/or where desirable in terms of broader aesthetic, landscape character, heritage or other management objectives. Advice on appropriate rehabilitation methods should be obtained from CapeNature, provincial nature reserve staff, and other competent bodies and/or person/s.

SPC 4.19 Establish a fund to assist private landowners in eradicating invasive alien vegetation, and/or promote eradication of invasive alien vegetation through municipal valuation or rate retrieval mechanisms.

SPC 4.20 Any introduction of plants for commercial use, introduction of game animals to the area, or harvest or extraction of indigenous plants or animals, should be subject to consent and management conditions from CapeNature.

SPC 4.21 Potentially viable and sustainable alternative uses of land for, amongst others, agricultural production, harvest and use of indigenous plants, agri-tourism and ecotourism, should be investigated in partnership with relevant agriculture and conservation agencies.

**5. Agriculture and Eco-tourism Amenities**

Most of the downstream farmland on the southern side of the Berg River is utilized for extensive grazing and agricultural crops. Yet during the past 20 years emphasis in this area has gradually shifted to tourism and salt production due to most of the land being marginal for sufficient agricultural yield. There are existing pockets of land zoned for tourism accommodation, agri-tourism, eco-tourism as well as a section at 'Die Eiland' for water sports. A possible tourism node is proposed at Kliphoek, Farm 1196. Initiatives such as this will greatly enhance the economic base of the area and create sustainable livelihoods. These amenities will support the diversification of the agricultural sector in terms of tourism and value-adding in the sub-region. Tourism projects in this area should be supported subject site-specific research and investigation and well as sustainable development plans. Development guidelines should not prohibit or restrict development options but promote sustainable development within the "triple bottom line" approach. As global warming change climates it can be expected that present day crops might no longer be produced in certain areas and alternative, though compatible, income generating incentives will become increasingly important in rural areas.

*v.* **Would include:**

- Farmsteads and associated buildings.
- Tourism related buildings and infrastructure.

*vi.* **Could allow:**

Subject to site-specific research and investigations:

- Farmsteads;
- Sheds;
- Tourism related buildings and infrastructure.

*vii.* **Development parameters**

- In order to conserve the source, *e.g.* a scenic area along the riverbank, suitable areas for agri- and eco-tourism amenities would be already transformed areas, or areas on the boundaries of natural or scenic areas.
- The type of agriculture and eco-tourism amenities should be compatible with the character of the built and natural environment.
- Site specifics should dictate architecture, size of features as well as number of structures that will be suitable.

*viii.* **Policies:**

- Prohibit transformation of Critically Endangered or Endangered natural vegetation.
- Retain areas of high primary production potential for agricultural use.
- Safeguard areas identified as important for key ecological and evolutionary processes.
- Protect the distinctive landscape character of the area.
- Promote sustainable use and sound management of tourism amenities within the agricultural and natural context, employing the principles of "LandCare" as endorsed by the Department of Agriculture.
- Promote eradication of invasive alien vegetation.
- Protect sensitive areas such as wetlands, drainage lines and riparian areas.
- Promote efficient use of water resources.
- Promote sustainable usage of amenities by avoiding unnecessary waste, and the re-use, repair, recover and recycle of waste already created.
- Promote rehabilitation or restoration of degraded or disturbed areas.
- Discourage the subdivision of land currently used for agriculture, except where it is consistent with the requirements as stipulated by Act 70 of 1970, and the guidelines for the sustainable sizes of farms required for the various types of agricultural produce, as determined by the Department of Agriculture.
- Permit mining and mineral extraction where it would not result in unacceptable negative impacts on local ecosystems or ecosystem services, and/or local communities.
- Promote awareness of the significance and uniqueness of natural vegetation and ecosystems of the area amongst local landowners and communities, visitors and tourists.

*ix.* **Strategies:**

SPC 5.1 No transformation of Critically Endangered or Endangered natural areas to be permitted.

SPC 5.2 Where the cultivation of virgin land, and/or other development which would affect natural vegetation, is being considered, a full botanical assessment should be carried out by a specialist botanist with local knowledge and experience approved by the Land Use Advisory Unit of CapeNature. This assessment should focus on determining the significance of the site (presence of Critically Endangered or Endangered vegetation) and its broader context with regard to key ecological and evolutionary processes. Specific attention should be paid to the connectivity of the site with other sites of similar natural vegetation in relatively close proximity. It is central to the conservation of Critically Endangered or Endangered vegetation or ecosystems that clusters of remnant sites, or a series of remnants within close proximity, are conserved to enable their persistence and protect genetic variability.

The findings of the botanical assessment should inform (ie establish opportunities or constraints to) further planning and environmental assessment, through due consideration of

alternatives, specifically with regard to avoiding irreversible or significant impacts through the location, siting, scale, design, management and/or other appropriate means.

SPC 5.3 Any application for development of areas with natural veld, development on or subdivision of privately owned land within this area, involving more than a primary dwelling, should be subject to the standard NEMA Integrated Environmental Management procedure, and environmental assessment (including the consideration of alternatives and public participation) at an appropriate level of detail.

SPC 5.4 Development should not take place in ecologically sensitive areas, eg floodplains, steep slopes, wetland or drainage areas, or mobile dunes or driftsands.

SPC 5.5 Any development should be planned and implemented to have negligible negative impact on biodiversity, aesthetic, heritage or sense of place characteristics. Use of energy and water-efficient technologies should be promoted, as well as sound management and disposal of solid waste and sewage.

SPC 5.6 All applications for changes in land use should be referred to the Environmental Management Committee for evaluation in terms of the policies contained in this SDF.

SPC 5.7 Applications for subdivision of agricultural land should be adjudicated by the Department of Agriculture in terms of the benefits that would accrue from such subdivision, i.e. conservation, enhanced agricultural development or the social-economic upliftment of communities. Subdivision should be consistent with the requirements as stipulated by Act 70 of 1970, and the guidelines for the sustainable sizes of farms required for the various types of agricultural produce, as determined by the Department of Agriculture.

SPC 5.8 Promote the incorporation of portions of land containing Critically Endangered or Endangered natural vegetation into areas managed under Co-operation or other Stewardship Agreements with CapeNature (e.g. Contract Nature Reserve, Co-operation Agreement, Conservation Area).

SPC 5.9 Employ the principles of “Land Care” and “Area-Wide Planning”, as endorsed by the Department of Agriculture. Local planning processes used by this Department should help to identify focal areas for resource conservation efforts.

SPC 5.10 Land in this SPC should be managed in such a way as to ensure that remaining areas of natural veld, and areas which support key ecological and evolutionary processes are conserved for future generations. Specifically, such aspects as the fire regime, eradication of invasive alien plants, rehabilitation of disturbed or degraded areas, and use of biocides and fertilizers, should be managed strictly in accordance with advice from CapeNature and/or other competent bodies and/or persons.

SPC 5.11 Land having high primary production potential should be retained for agricultural use and not sterilized by alternative forms of development.

SPC 5.12 Rehabilitate or restore degraded areas and areas invaded by alien plants where such areas provide habitat for Critically Endangered or Endangered vegetation, link natural areas of conservation value, represent areas supporting key ecological and evolutionary processes, and/or where desirable in terms of broader aesthetic, landscape character, heritage or other management objectives. Advice on appropriate rehabilitation methods should be obtained from CapeNature, provincial nature reserve staff, and other competent bodies and/or person/s.

SPC 5.19 Establish a fund to assist private landowners in eradicating invasive alien vegetation, and/or promote eradication of invasive alien vegetation through municipal valuation or rate retrieval mechanisms.

**6. Core Urban**

Intensive settlement areas of relatively high density within the study area, able to obtain and support a range of services and opportunities. These areas are situated within a "soft" urban edge and contain a range of land use activities. The soft edge implies that the impact of the land unit on the urban structure and function to be the subject of further site-specific research and evaluation in order to decide what portion of the cadastral unit should be included into the urban edge.

*i.* **Would include:**

- Urban Areas.

*ii.* **Could allow:**

Subject to site-specific research and investigations:

- Commercial activities.
- Infrastructure and services.
- Social facilities.
- Housing.
- Industry.

*iii.* **Development parameters**

- See Chapter 12 of the Bergrivier Spatial Development Framework;

*iv.* **Policies:**

- Zoning permission for commercial uses outside the designated commercial areas should not be granted.
- Safeguard areas identified as important for key ecological and evolutionary processes.
- Applications for future development should comply with the restrictions on development below the 1: 100 year flood line (building platform) (subject to site-specific research and investigation).
- Development should avoid or minimize negative impacts on ecosystems and should promote efficient use of resources.
- Adverse impacts on adjacent areas should be minimized.

*v.* **Strategies:**

SPC 5.1 Compile an area specific Local Spatial Development Plans for the area (can be substituted by a Site-specific Development Plan). This plan should give site-specific guidelines to the provision of facilities and amenities in terms of their scale and location relative to the strategic need to capitalize on the specific comparative advantages of the particular area relative to the sub-region and the experience it offers permanent residents, seasonal residents and tourists.

SPC 5.2 Opportunities and constraints of the natural and cultural environment, as well as potential impacts on valued or sensitive environmental components, should be considered when planning development within the area: Important place-making and cultural elements, eg visitor facilities, trails, historical buildings, tree lines, and other heritage resources should be identified and protected. Furthermore, these elements should be promoted and incorporated as the basis for the site evaluation and planning of all future development.

SPC 5.3 Development should not take place in ecologically sensitive areas, e.g. floodplains, steep slopes, wetland or drainage areas, or mobile dunes or driftsands (subject to site-specific research and investigation).

SPC 5.4 Plans for managing water resources, ground water resources, sewage effluent, solid waste and alien vegetation eradication should be prepared and implemented.

SPC 5.5 The use of water- and energy-efficient sustainable technology in development should be promoted.

SPC 5.6 The planting of invasive exotic plant species in gardens should be strictly prohibited. Planting of locally occurring indigenous (water-wise) plants should be encouraged (subject to site-specific research and investigation).

SPC 5.7 Special attention should be given to promote the management of available freshwater resources, with emphasis on efficient and appropriate use of available water, avoiding wastage or leakage, and avoiding pollution of these resources.

SPC 5.8 Any development in this area should be subject to the Integrated Environmental Management procedure and environmental assessment at an appropriate level of detail.