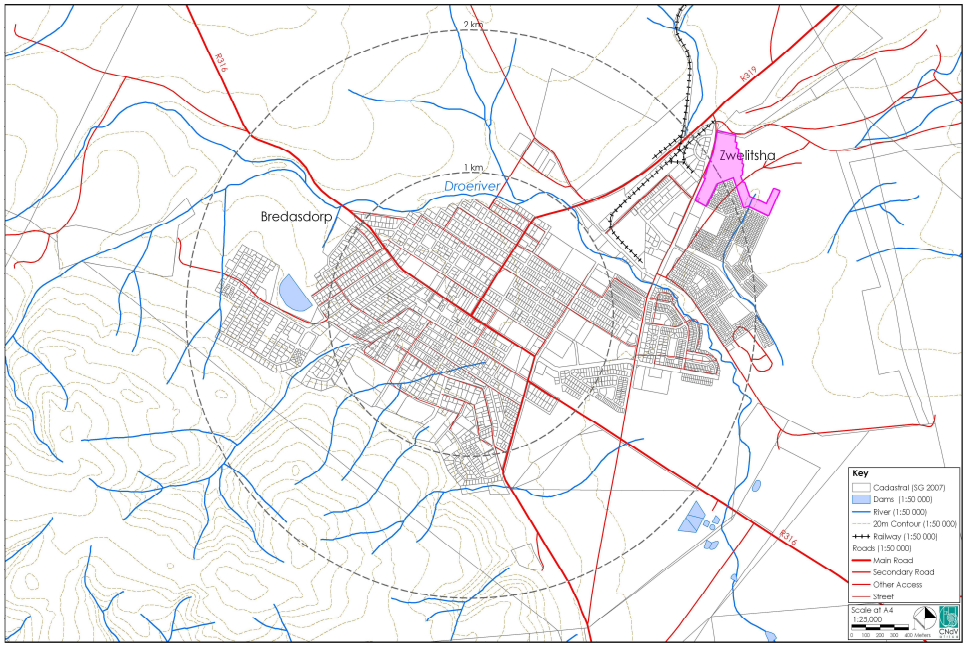


Figure 4.4.13.1.1 Locality

Figure 4.4.13.1.2 Bredasdorp Site A Aerial Photograph

Photo 4.4.13.1.1 View from intersection of Ou Meule and Swellendam Roads looking south

4.4.13.1.1 Property Description: Erf RE/1148 Zwelitsha
4.4.13.1.2 Size: 10.42ha
4.4.13.1.3 External Access: - Ou Meule Street
4.4.13.1.4 Buildings: Existing informal settlement on a portion of the site
4.4.13.1.5 Community Facilities: within 1km
4.4.13.1.6 Schools: within 1km
4.4.13.1.7 Retail Facilities: within 1km
4.4.13.1.8 Services Availability and Capacity:

- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.1.9 Current Use: A portion of the site has an informal settlement on it. The remainder is vacant. Industrial uses are located north and west of the site (opposite Ou Meule Street). Residential uses are located east of the site.
4.4.13.1.10 Ownership of Site: Owned by the Cape Agulhas Municipality.
4.4.13.1.11 Current Zoning:
4.4.13.1.12 Negative:

- Close to landfill site – potential health problems. Need to review the size of the buffer zone.
- Existing informal settlement on a portion of the site.
- More than 1km from centre of town

4.4.13.1.13 Positive:

- Beneficiaries will not have to be moved;
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Project is currently underway on a portion of the site.

4.4.13.1.14 Proposed Use:

- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 531

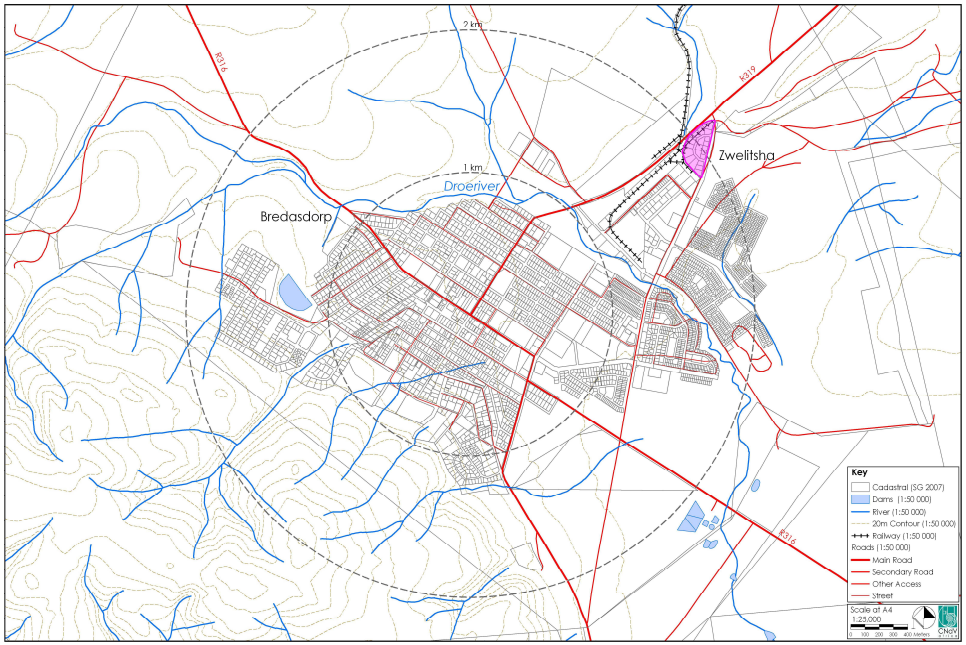


Figure 4.4.13.2.1 Locality

Photo 4.4.13.2.1 View over the site looking south from the R319

Figure 4.4.13.2.2 Bredasdorp Site B Aerial Photograph

4.4.13.2.1 Property Description: Erf 3484 to 3504
4.4.13.2.2 Size: 4.49ha
4.4.13.2.3 External Access
- Ou Meule Street
- Padiachy Street
- Meyer Street
- Fabriek Street

4.4.13.2.4 Buildings: No buildings on site
4.4.13.2.5 Community Facilities: within 1km
4.4.13.2.6 Schools: within 1km
4.4.13.2.7 Retail Facilities: within 1km
4.4.13.2.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.2.9 Current Use: Vacant
4.4.13.2.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.2.11 Current Zoning:
4.4.13.2.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.2.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.2.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 228

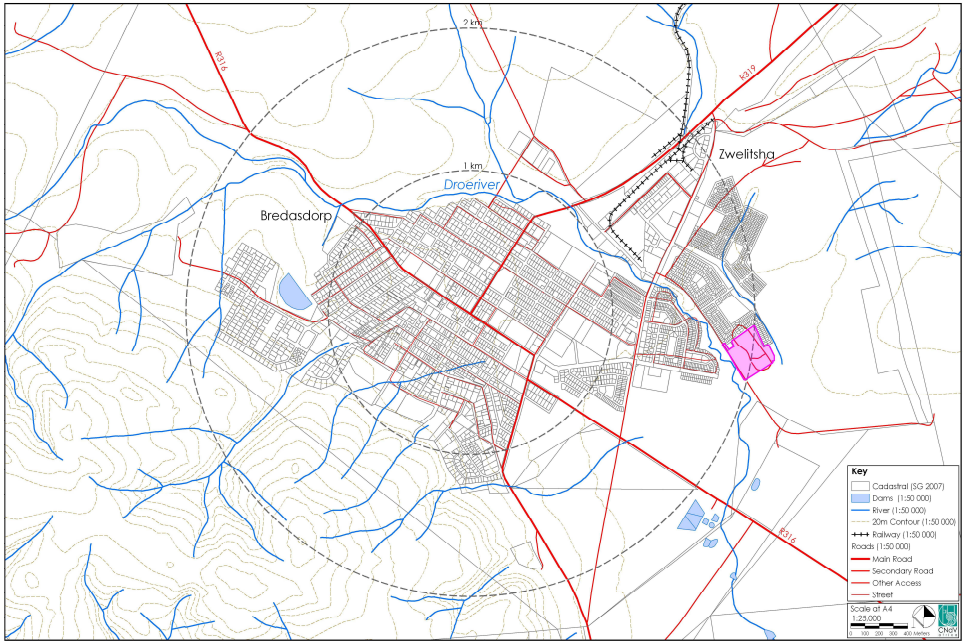


Figure 4.4.13.3.1 Locality

Figure 4.4.13.3.2 Bredasdorp Site C Aerial Photograph

Photo 4.4.13.3.1 View of the site looking west from Afrika Avenue

4.4.13.3.1 Property Description: E/1148
4.4.13.3.2 Size: 6.96ha
4.4.13.3.3 External Access
- Ou Meule Street
- Padiachy Street
- Meyer Street
- Fabriek Street

4.4.13.3.4 Buildings: No buildings on site
4.4.13.3.5 Community Facilities: within 1km
4.4.13.3.6 Schools: within 1km
4.4.13.3.7 Retail Facilities: within 1km
4.4.13.3.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.3.9 Current Use: Vacant
4.4.13.3.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.3.11 Current Zoning:
4.4.13.3.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.3.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.3.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 354

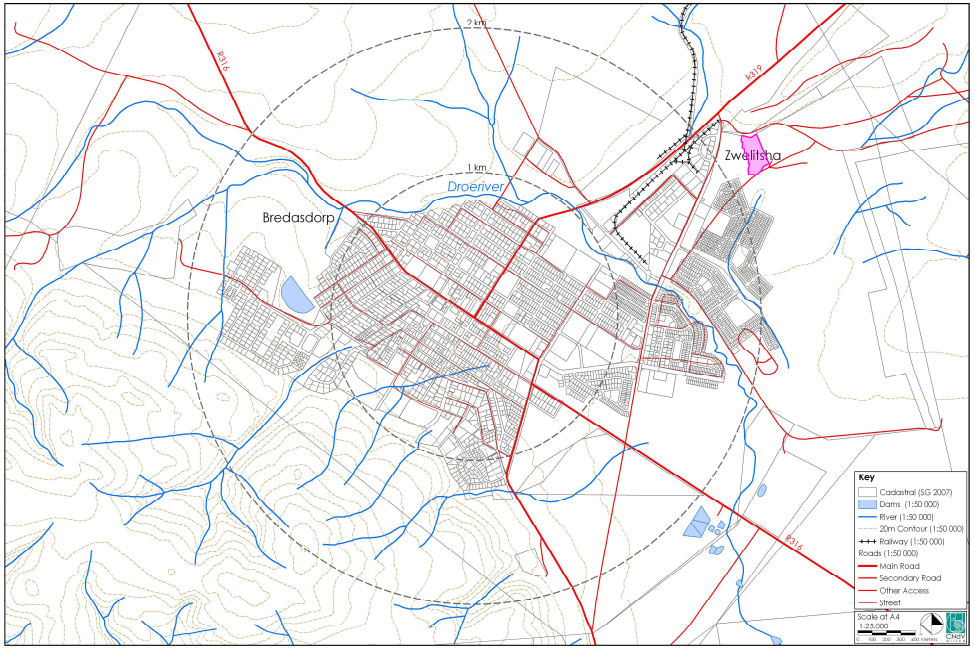


Figure 4.4.13.4.1 Locality

Figure 4.4.13.4.2 Bredasdorp Site D Aerial Photograph

Photo 4.4.13.4.1 View of the site looking north from Rand Street

4.4.13.4.1 Property Description: RE/1148
4.4.13.4.2 Size: 3.33ha
4.4.13.4.3 External Access
- Ou Meule Street
- Padiachy Street
- Meyer Street
- Fabriek Street

4.4.13.4.4 Buildings: No buildings on site
4.4.13.4.5 Community Facilities: within 1km
4.4.13.4.6 Schools: within 1km
4.4.13.4.7 Retail Facilities: within 1km
4.4.13.4.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.4.9 Current Use: Vacant
4.4.13.4.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.4.11 Current Zoning:
4.4.13.4.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.4.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.4.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 169

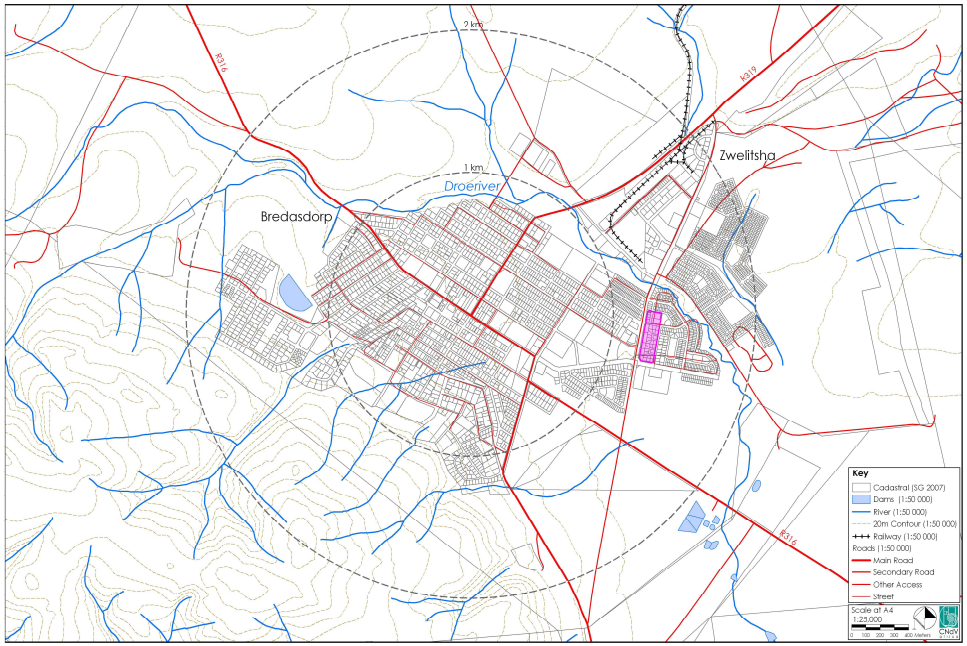


Figure 4.4.13.5.1 Locality

Figure 4.4.13.5.2 Bredasdorp Site E Aerial Photograph

Photo 4.4.13.5.1 View over the site looking north east from the corner of Ou Meule and Long Streets

4.4.13.5.1 Property Description: Erven 1737, 1746, 1747, 3304 to 3308, 3601 to 3629
4.4.13.5.2 Size: 3.77ha
4.4.13.5.3 External Access
- Ou Meule Street
- Padiachy Street
- Meyer Street
- Fabriek Street

4.4.13.5.4 Buildings: Buildings on site
4.4.13.5.5 Community Facilities: within 1km
4.4.13.5.6 Schools: within 1km
4.4.13.5.7 Retail Facilities: within 1km
4.4.13.5.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.5.9 Current Use: Vacant
4.4.13.5.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.5.11 Current Zoning:
4.4.13.5.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.5.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.5.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 192

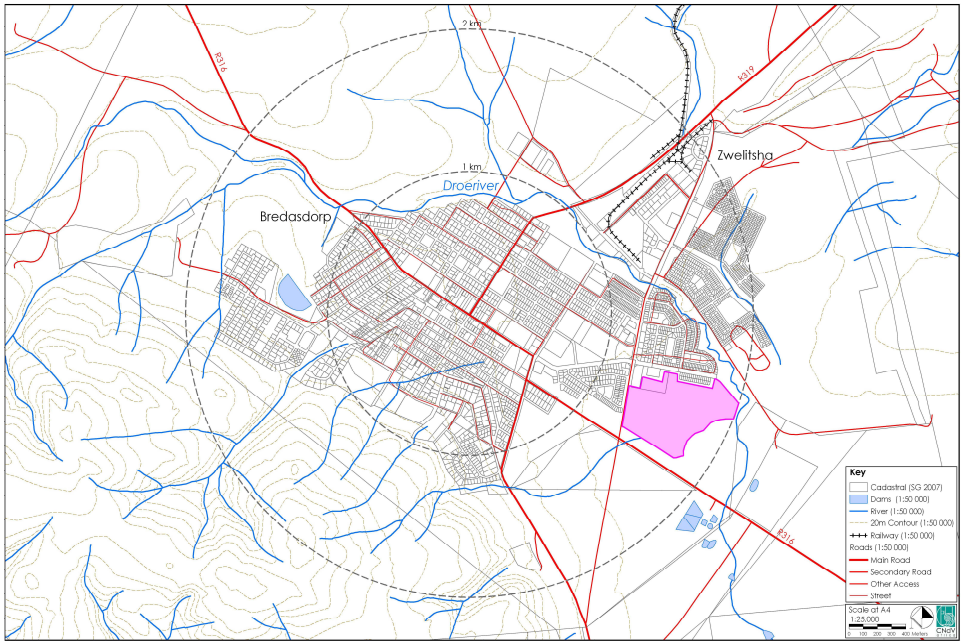


Figure 4.4.13.6.1 Locality

Photo 4.4.13.6.1 View of the site looking north-east from the R316

Figure 4.4.13.6.2 Bredasdorp Site F Aerial Photograph

4.4.13.6.1 Property Description: RE/4102, 2139, RE/1148
4.4.13.6.2 Size: 29.55ha
4.4.13.6.3 External Access
4.4.13.6.4 Buildings: No buildings on site
4.4.13.6.5 Community Facilities: within 1km
4.4.13.6.6 Schools: within 1km
4.4.13.6.7 Retail Facilities: within 1km
4.4.13.6.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.6.9 Current Use: Vacant
4.4.13.6.10 Ownership of Site: No result
4.4.13.6.11 Ownership of Land Adjacent:
4.4.13.6.12 Current Zoning:
4.4.13.6.13 Negative:
- Floodline (?)

4.4.13.6.14 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.6.15 Proposed Use:
- Number of BNG units at 195 m²: 51du/ha
- Number of GAP units at 250m²: 40du/ha
- Total Number of Units: 1349

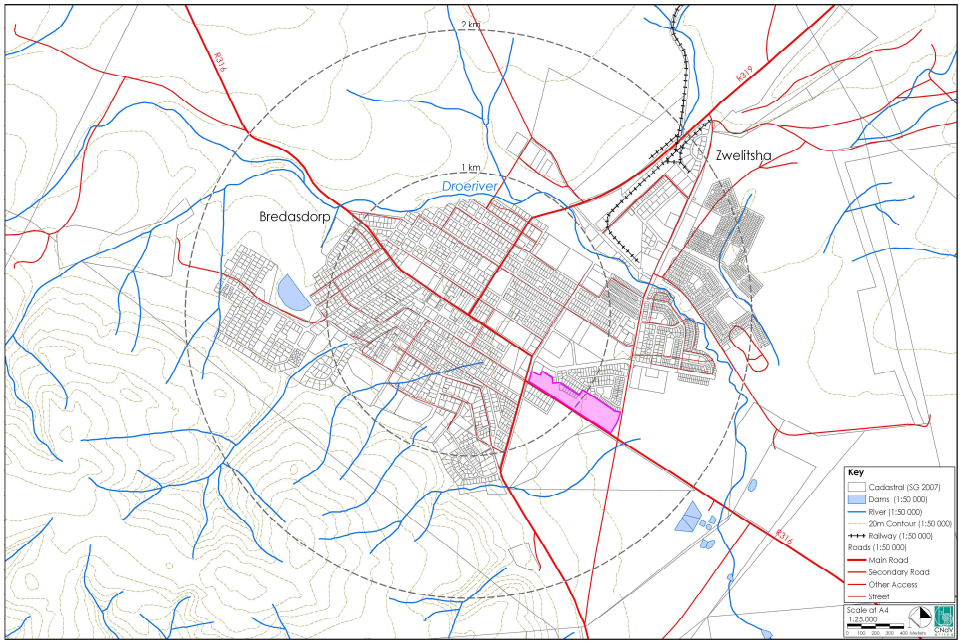


Figure 4.4.13.7.1 Locality

Figure 4.4.13.7.2 Bredasdorp Site G Aerial Photograph

Photo 4.4.13.7.1 View of Site looking west

4.4.13.7.1 Property Description: RE/1148 (4185, 4186, 4187, 4188, 4189, 4190, 4191)
4.4.13.7.2 Size: 8.78ha
4.4.13.7.3 External Access
4.4.13.7.4 Buildings: Building at edge of site
4.4.13.7.5 Community Facilities: within 1km
4.4.13.7.6 Schools: within 1km
4.4.13.7.7 Retail Facilities: within 1km
4.4.13.7.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.7.9 Current Use: Vacant
4.4.13.7.10 Ownership of Site: Cape Agulhas Municipality, Erf 4191 privately owned
4.4.13.7.11 Ownership of Land Adjacent:
4.4.13.7.12 Current Zoning:
4.4.13.7.13 Negative:
- Buildings on site that may have to be replaced

4.4.13.7.14 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.7.15 Proposed Use:
- Number of Gap units at 250 m²: 40 du/ha
- Total Number of Units: 351

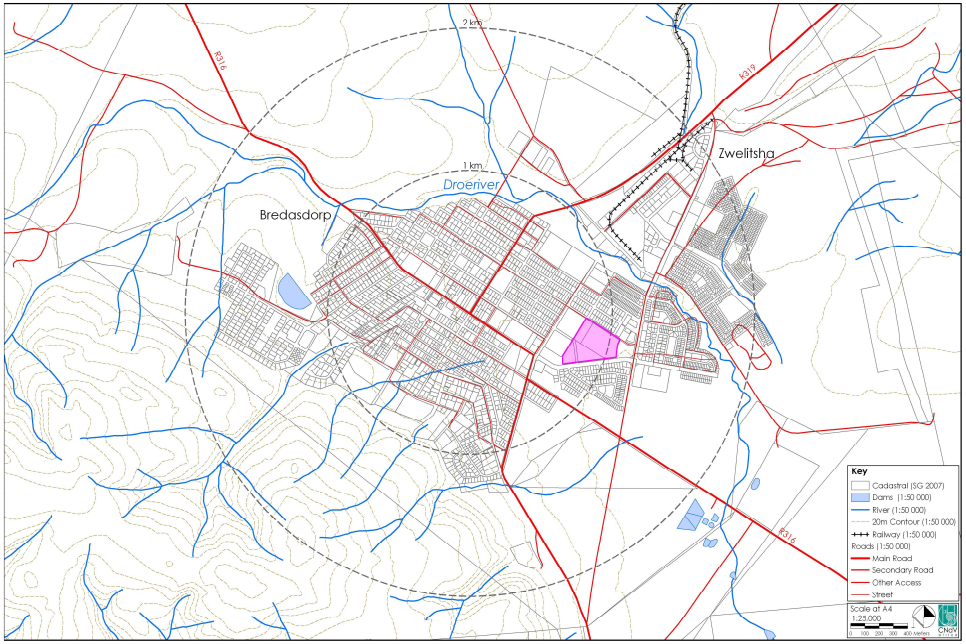


Figure 4.4.13.8.1 Locality

Figure 4.4.13.8.2 Bredasdorp Site H Aerial Photograph

Photo 4.4.13.8.1 View of Site looking east

4.4.13.8.1 Property Description: Erf 1924, 1923, 1922, 1335, RE/1148
4.4.13.8.2 Size: 8.02ha
4.4.13.8.3 External Access
4.4.13.8.4 Buildings: No Buildings on site
4.4.13.8.5 Community Facilities: within 1km
4.4.13.8.6 Schools: within 1km
4.4.13.8.7 Retail Facilities: within 1km
4.4.13.8.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.8.9 Current Use: Vacant
4.4.13.8.10 Ownership of Site: Cape Agulhas Municipality, Regional Services Council – Overberg, Bredasdorp Non-European Sports Association
4.4.13.8.11 Ownership of Land Adjacent: check?
4.4.13.8.12 Current Zoning: check?
4.4.13.8.13 Negative:
- Buildings on site that may have to be replaced

4.4.13.8.14 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.8.15 Proposed Use:
- Number of GAP units at 250 m²: 40du/ha
- Total Number of Units: 320

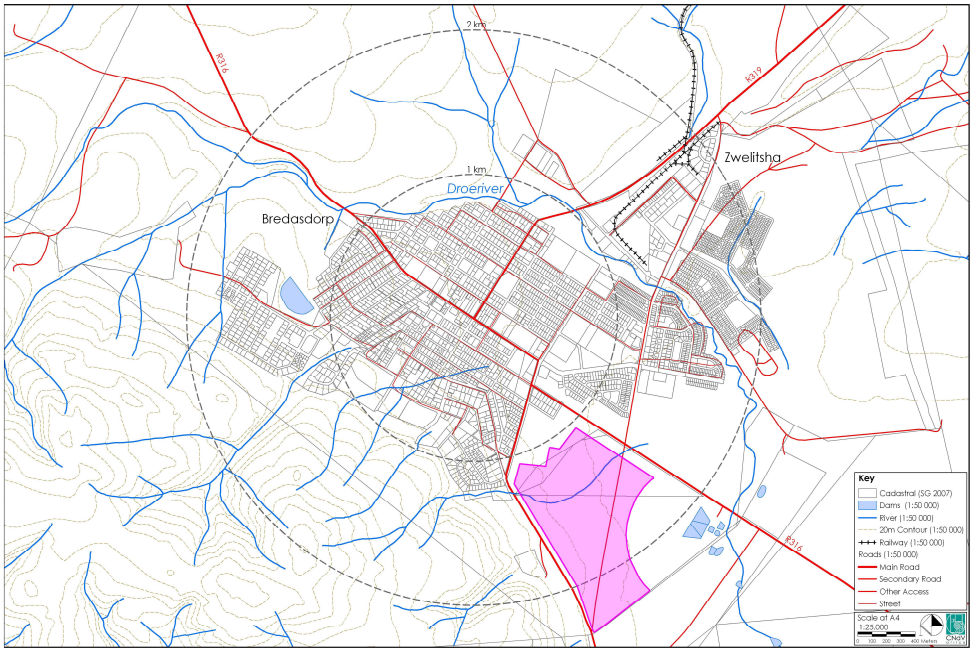


Figure 4.4.13.9.1 Locality

Figure 4.4.13.9.2 Bredasdorp Site I Aerial Photograph

Photo 4.4.13.9.1 View of site looking north from the R319

4.4.13.9.1 Property Description: RE/1148
4.4.13.9.2 Size: 72.44ha
4.4.13.9.3 External Access
4.4.13.9.4 Buildings: Building on site
4.4.13.9.5 Community Facilities: within 1km
4.4.13.9.6 Schools: within 1km
4.4.13.9.7 Retail Facilities: within 1km
4.4.13.9.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.9.9 Current Use:
4.4.13.9.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.9.11 Ownership of Land Adjacent:
4.4.13.9.12 Current Zoning:
4.4.13.9.13 Negative:
- Buildings on site that may have to be replaced

4.4.13.9.14 Positive:
- Within 1km from the centre of town

4.4.13.9.15 Proposed Use:
- Number of High Income units at 500m²: 20du/ha
- Total Number of Units: 1448

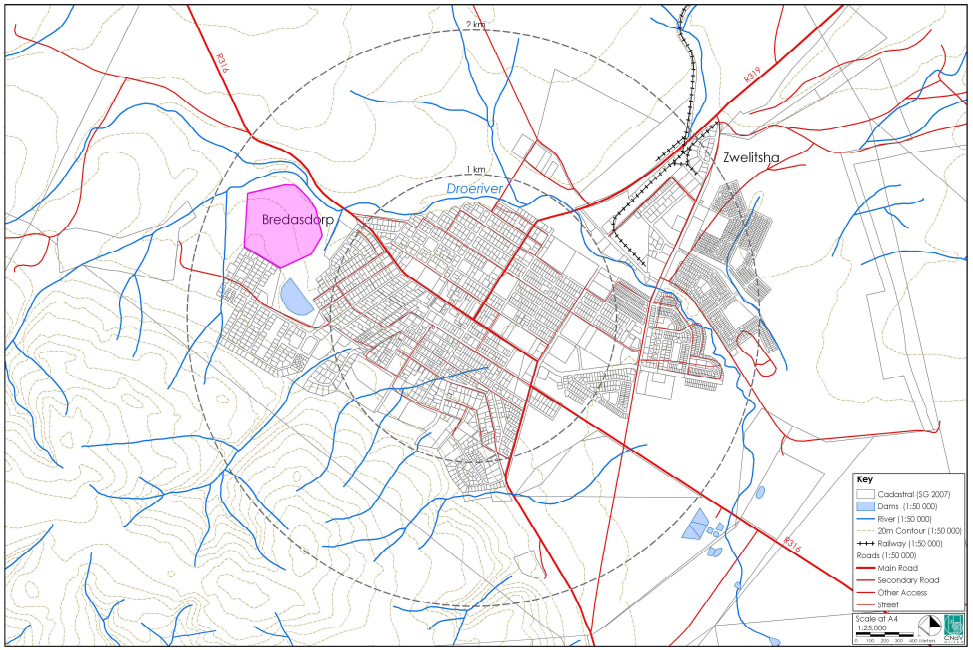


Figure 4.4.13.10.1 Locality

Figure 4.4.13.10.2 Bredasdorp Site J Aerial Photograph

Photo 4.4.13.10.1 View of site looking west from Long Street

4.4.13.10.1 Property Description: RE/1148
4.4.13.10.2 Size: 24.01ha
4.4.13.10.3 External Access
4.4.13.10.4 Buildings: No buildings on site
4.4.13.10.5 Community Facilities: within 1km
4.4.13.10.6 Schools: within 1km
4.4.13.10.7 Retail Facilities: within 1km
4.4.13.10.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.10.9 Current Use: Vacant
4.4.13.10.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.10.11 Current Zoning:
4.4.13.10.12 Negative:
- Buildings on site that may have to be replaced

4.4.13.10.13 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.10.14 Proposed Use:
- Number of High Income units at 500m²: 20du/ha
- Total Number of Units: 480

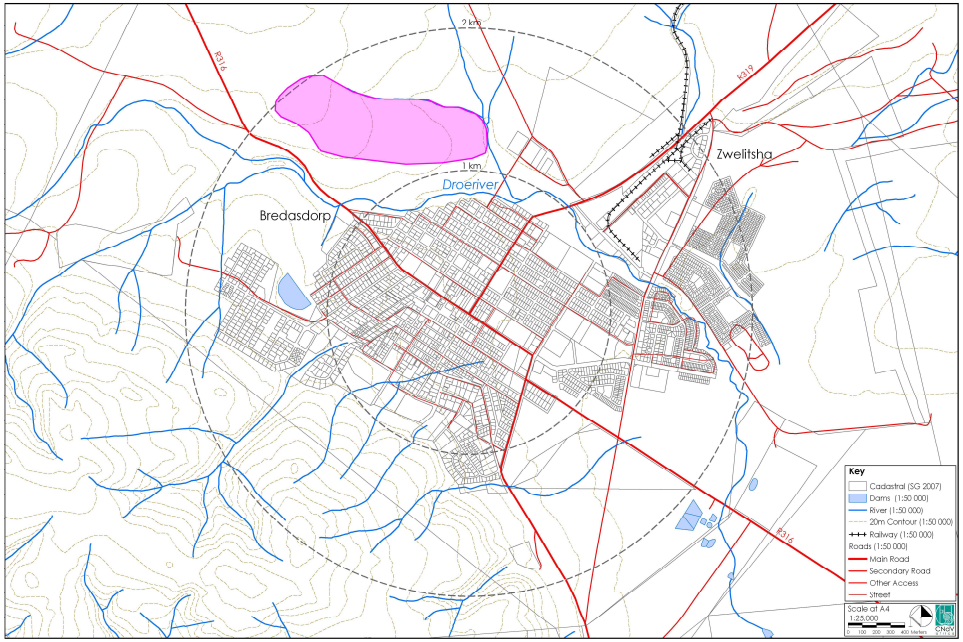


Figure 4.4.13.11.1 Locality

Photo 4.4.13.11.1 View of site looking north-west from Fletcher Street

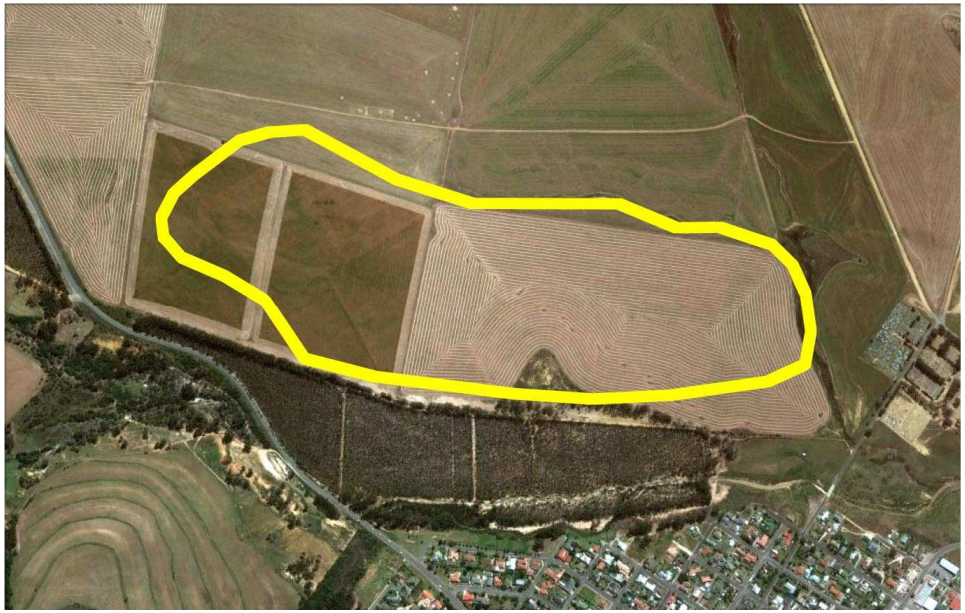


Figure 4.4.13.11.2 Bredasdorp Site K Aerial Photograph

4.4.13.11.1 Property Description: RE/1148
4.4.13.11.2 Size: 60.06ha
4.4.13.11.3 External Access
4.4.13.11.4 Buildings: No buildings on site
4.4.13.11.5 Community Facilities: within 1km
4.4.13.11.6 Schools: within 1km
4.4.13.11.7 Retail Facilities: within 1km
4.4.13.11.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.11.9 Current Use: Vacant
4.4.13.11.10 Ownership of Site:
4.4.13.11.11 Current Zoning:
4.4.13.11.12 Negative:
- Confirm bulk services

4.4.13.11.13 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.11.14 Proposed Use:
- Industrial (possibility 2252 units)

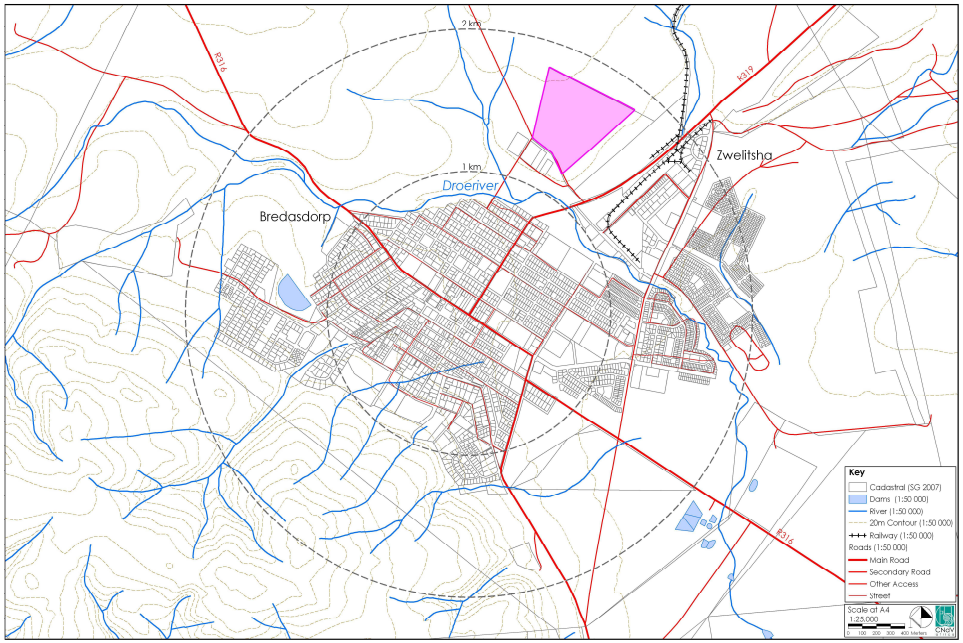


Figure 4.4.13.12.1 Locality

Photo 4.4.13.12.1 View of site looking north from Fabriek Street

Figure 4.4.13.12.2 Bredasdorp Site L Aerial Photograph

4.4.13.12.1 Property Description: RE/4102
4.4.13.12.2 Size: 27.68ha
4.4.13.12.3 External Access
4.4.13.12.4 Buildings: Buildings on site
4.4.13.12.5 Community Facilities: within 1km
4.4.13.12.6 Schools: within 1km
4.4.13.12.7 Retail Facilities: within 1km
4.4.13.12.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.12.9 Current Use: Vacant
4.4.13.12.10 Ownership of Site: No result
4.4.13.12.11 Current Zoning:
4.4.13.12.12 Negative:
- Buildings that may have to be replaced

4.4.13.12.13 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.12.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 1411

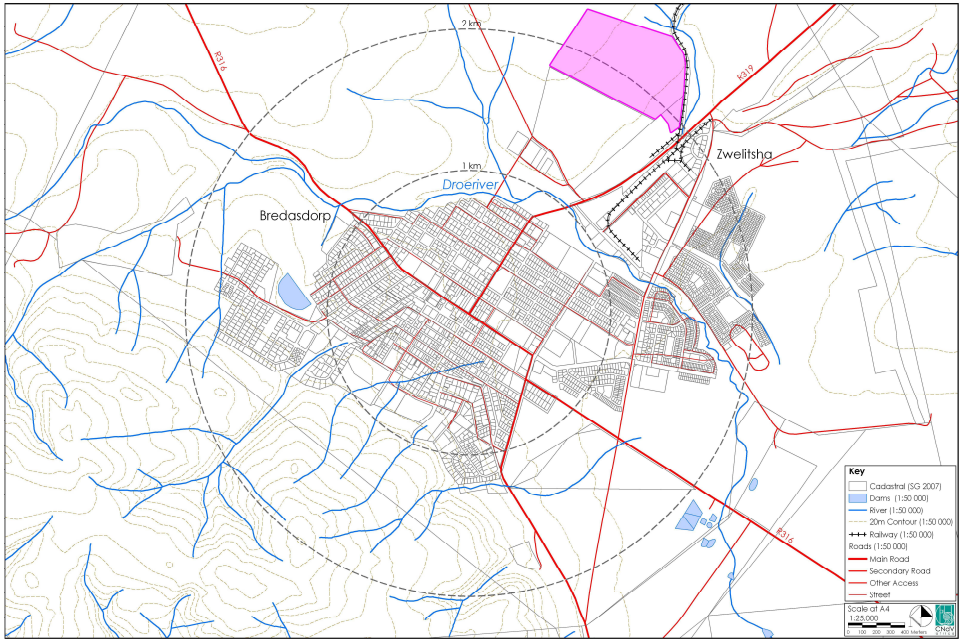


Figure 4.4.13.13.1 Locality

Photo 4.4.13.13.1 View of site looking north from the R319

Figure 4.4.13.13.2 Bredasdorp Site M Aerial Photograph

4.4.13.13.1 Property Description: RE/1148, erf 4746
4.4.13.13.2 Size: 46.98ha
4.4.13.13.3 External Access
4.4.13.13.4 Buildings: No buildings on site
4.4.13.13.5 Community Facilities: within 1km
4.4.13.13.6 Schools: within 1km
4.4.13.13.7 Retail Facilities: within 1km
4.4.13.13.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.13.9 Current Use: Vacant
4.4.13.13.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.13.11 Current Zoning:
4.4.13.13.12 Negative:
- Buildings that may have to be replaced;
- Not within 1km from the centre of town

4.4.13.13.13 Positive:
- Land is vacant

4.4.13.13.14 Proposed Use:
- To be determined / future use

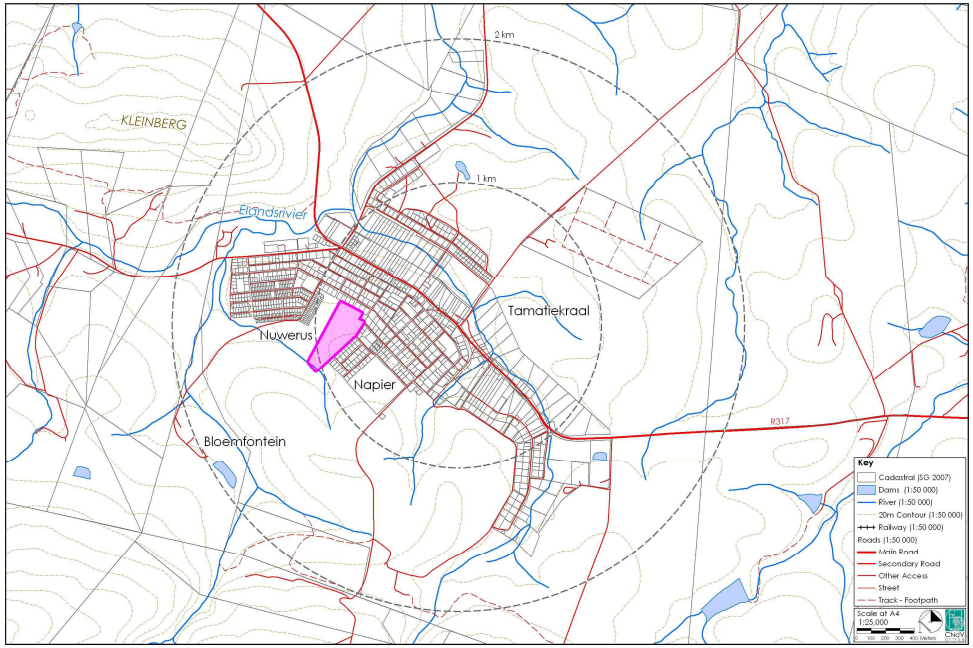


Figure 4.4.13.14.1 Locality

Photo 4.4.13.14.1 View of the site looking north-west rom Short Street

Figure 4.4.13.14.2 Napier Site A Aerial Photograph

4.4.13.14.1 Property Description: RE/513
4.4.13.14.2 Size: 8.06ha
4.4.13.14.3 External Access
4.4.13.14.4 Buildings: No buildings on site
4.4.13.14.5 Community Facilities: within 1km
4.4.13.14.6 Schools: within 1km
4.4.13.14.7 Retail Facilities: within 1km
4.4.13.14.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.14.9 Current Use: Vacant
4.4.13.14.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.14.11 Current Zoning:
4.4.13.14.12 Negative:
- Floodline (?)

4.4.13.14.13 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.14.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 411

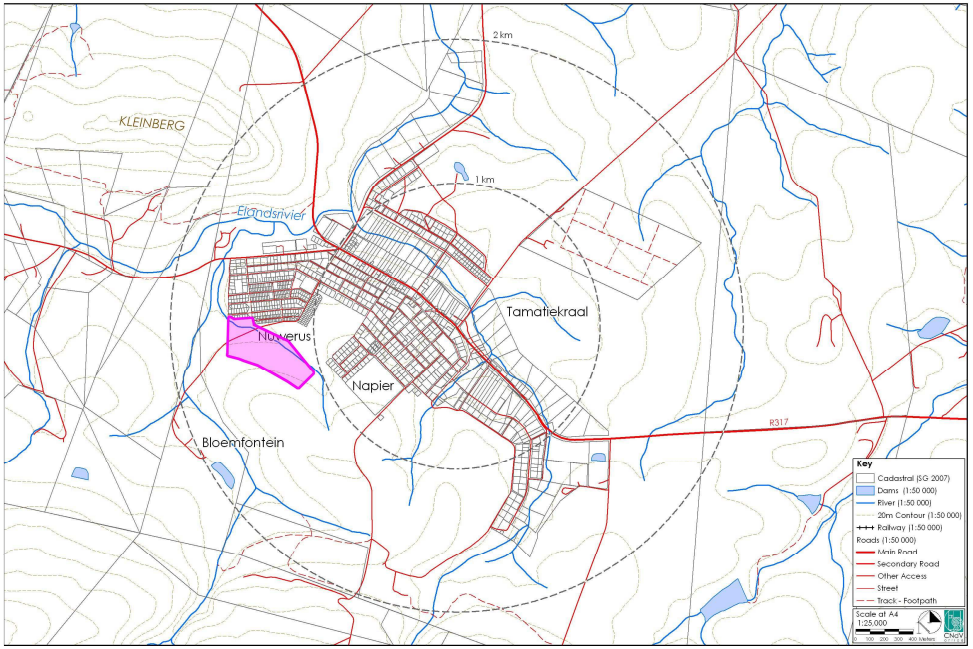


Figure 4.4.13.15.1 Locality

Figure 4.4.13.15.2 Napier Site B Aerial Photograph

Photo 4.4.13.15.1 View of the site looking south from Job Street

4.4.13.15.1 Property Description: RE/513
4.4.13.15.2 Size: 14.71ha
4.4.13.15.3 External Access
4.4.13.15.4 Buildings: Existing settlement on site
4.4.13.15.5 Community Facilities: within 1km
4.4.13.15.6 Schools: within 1km
4.4.13.15.7 Retail Facilities: within 1km
4.4.13.15.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.15.9 Current Use: Vacant
4.4.13.15.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.15.11 Current Zoning:
4.4.13.15.12 Negative:
- Ridgeline to be observed

4.4.13.15.13 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.15.14 Proposed Use:
- Number of GAP units at 250m²: 40du/ha
- Total Number of Units: 588

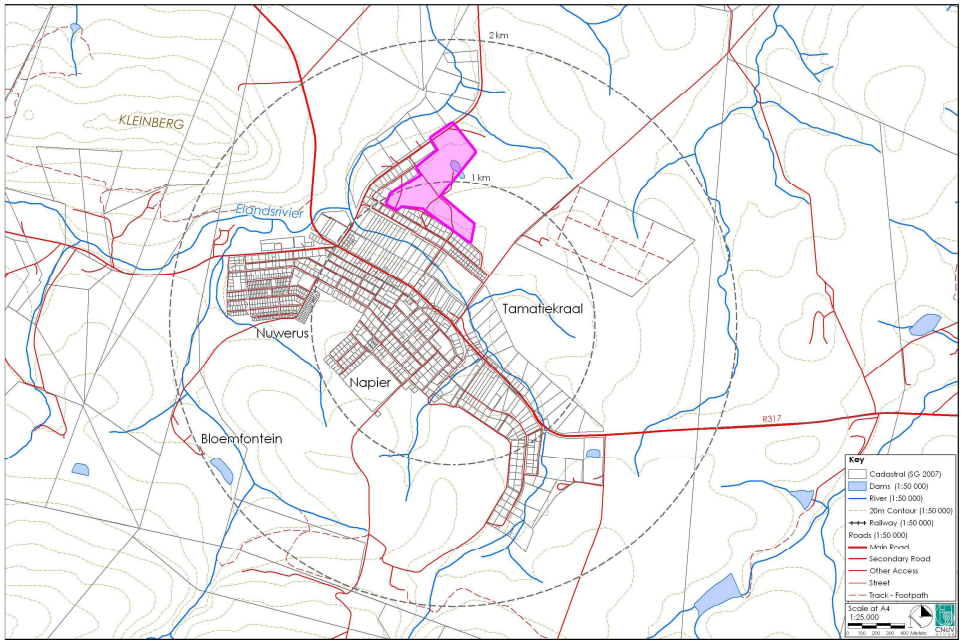


Figure 4.4.13.16.1 Locality

Photo 4.4.13.16.1 View of the site looking south from Gordon Street

Figure 4.4.13.16.2 Napier Site C Aerial Photograph

4.4.13.16.1 Property Description: RE/513
4.4.13.16.2 Size: 20.72ha
4.4.13.16.3 External Access
4.4.13.16.4 Buildings: No buildings on site
4.4.13.16.5 Community Facilities: within 1km
4.4.13.16.6 Schools: within 1km
4.4.13.16.7 Retail Facilities: within 1km
4.4.13.16.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.16.9 Current Use: Vacant
4.4.13.16.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.16.11 Current Zoning:
4.4.13.16.12 Negative:
- Floodline (?)
- Confirm bulk services

4.4.13.16.13 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.16.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 1056

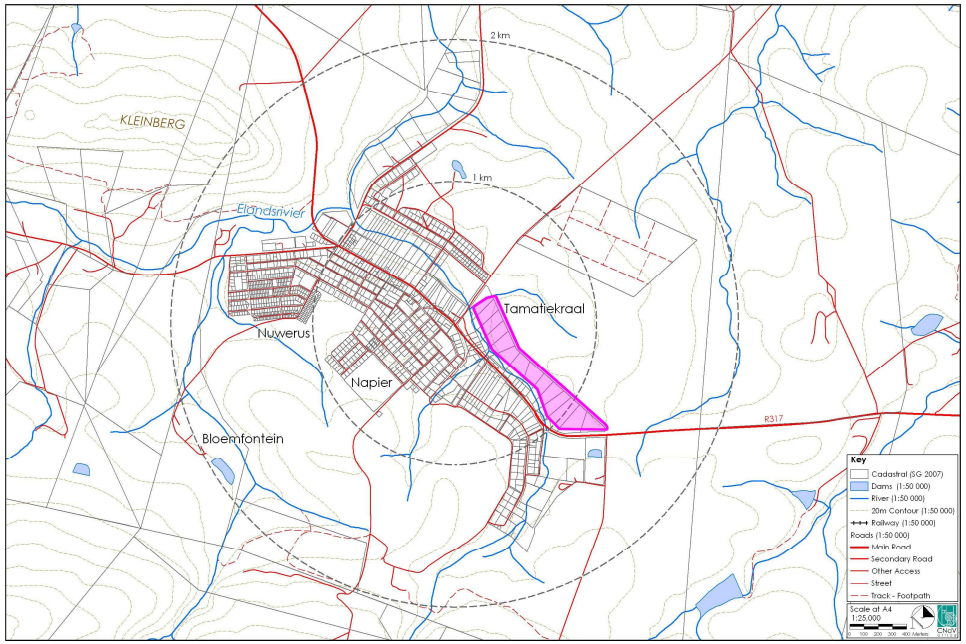


Figure 4.4.13.17.1 Locality

Photo 4.4.13.17.1 View of the site looking north from the R316

Figure 4.4.13.17.2 Napier Site D Aerial Photograph

4.4.13.17.1 Property Description: Erven 1111 to 1115, 1330 to 1338, RE/1513
4.4.13.17.2 Size: 19.59ha
4.4.13.17.3 External Access
4.4.13.17.4 Buildings: No buildings on site
4.4.13.17.5 Community Facilities: within 1km
4.4.13.17.6 Schools: within 1km
4.4.13.17.7 Retail Facilities: within 1km
4.4.13.17.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.17.9 Current Use: Vacant
4.4.13.17.10 Ownership of Site:
4.4.13.17.11 Current Zoning:
4.4.13.17.12 Negative:
- Confirm bulk services

4.4.13.17.13 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.17.14 Proposed Use:
- Number of GAP units at 250 m²: 40du/ha
- Total Number of Units: 783

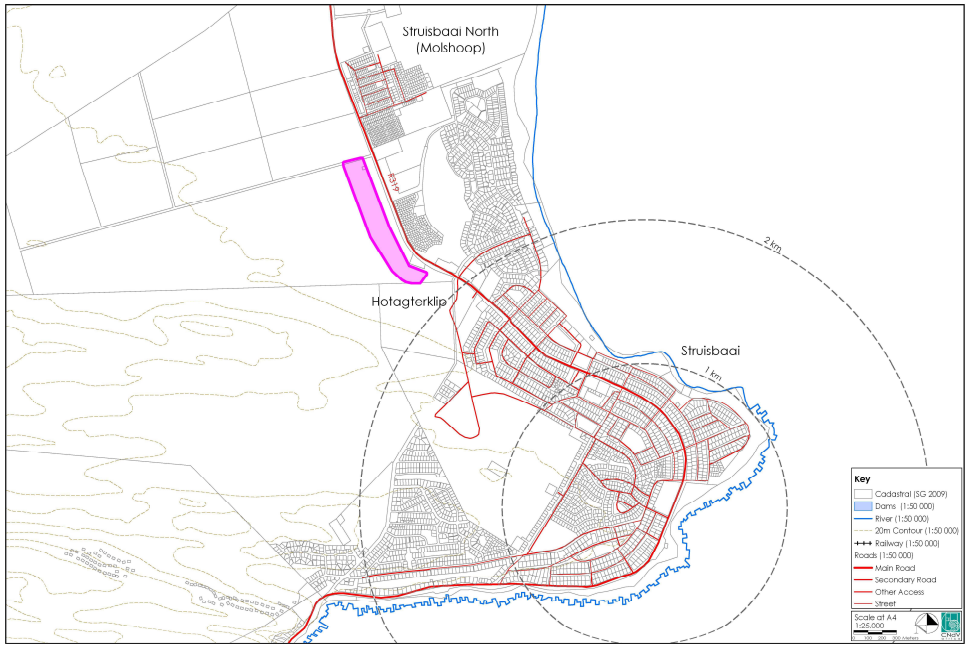


Figure 4.4.13.18.1 Locality

Photo 4.4.13.18.1 View of the site looking

Figure 4.4.13.18.2 Struisbaai Site A Aerial Photograph

4.4.13.18.1 Property Description: RE/857
4.4.13.18.2 Size: 11.77ha
4.4.13.18.3 External Access
4.4.13.18.4 Buildings: No buildings on site
4.4.13.18.5 Community Facilities: within 1km
4.4.13.18.6 Schools: within 1km
4.4.13.18.7 Retail Facilities: within 1km
4.4.13.18.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.18.9 Current Use: Vacant
4.4.13.18.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.18.11 Current Zoning:
4.4.13.18.12 Negative:
- Confirm bulk services

4.4.13.18.13 Positive:
- Within 1km from the centre of town
- Land is vacant

4.4.13.18.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 600

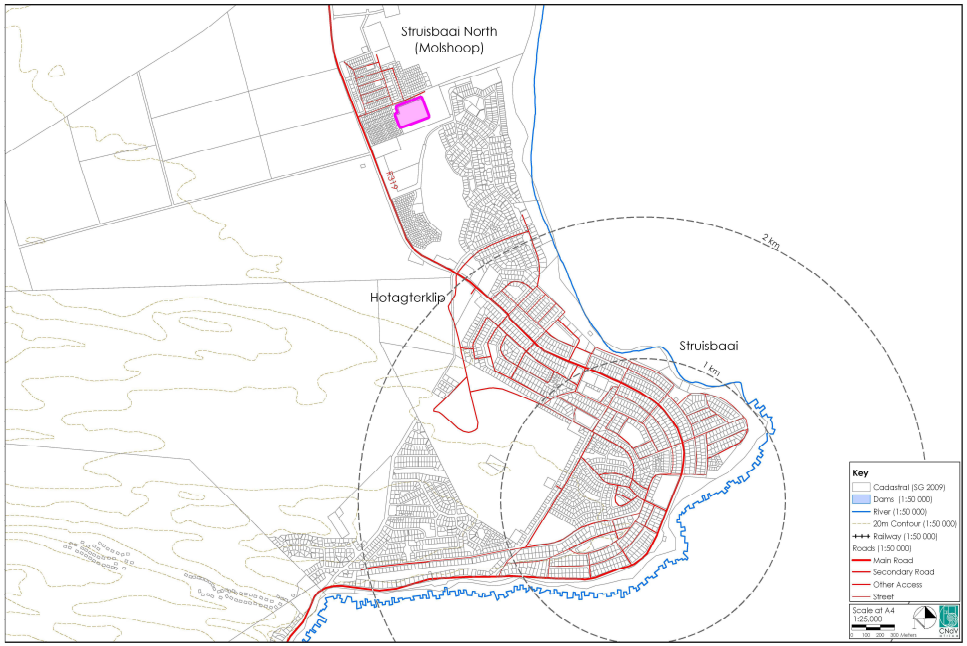


Figure 4.4.13.19.1 Locality

Figure 4.4.13.19.2 Struisbaai Site B Aerial Photograph

Photo 4.4.13.19.1 View of the site looking south from 1st Avenue

4.4.13.19.1 Property Description: RE/932
4.4.13.19.2 Size: 2.70ha
4.4.13.19.3 External Access
4.4.13.19.4 Buildings: Building on edge of site
4.4.13.19.5 Community Facilities: within 1km
4.4.13.19.6 Schools: within 1km
4.4.13.19.7 Retail Facilities: within 1km
4.4.13.19.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.19.9 Current Use: Vacant
4.4.13.19.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.19.11 Current Zoning:
4.4.13.19.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.19.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.19.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 137

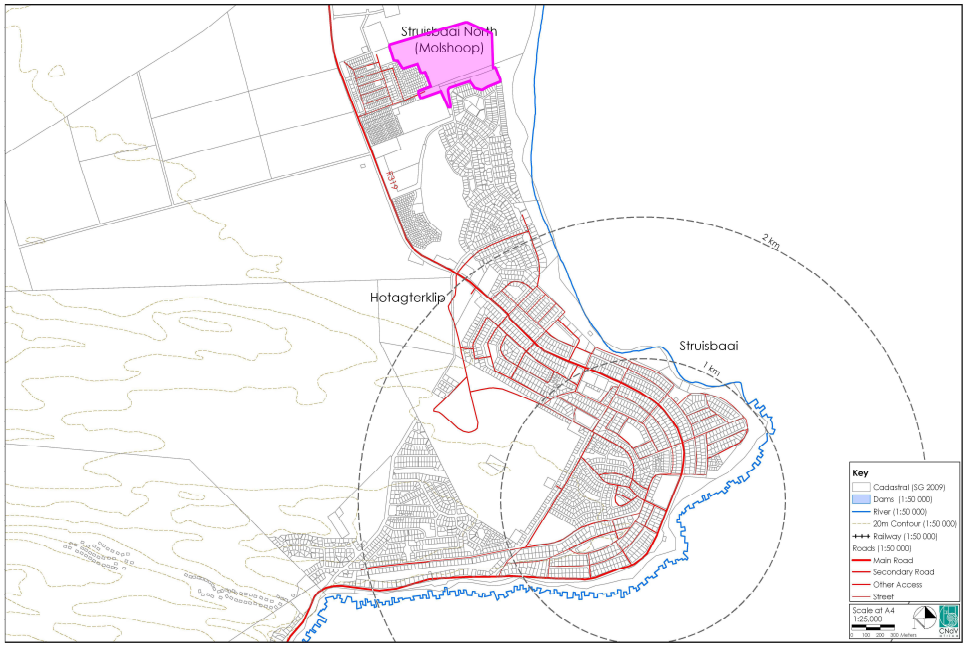


Figure 4.4.13.20.1 Locality

Photo 4.4.13.20.1 View of the site looking north from 1st Avenue

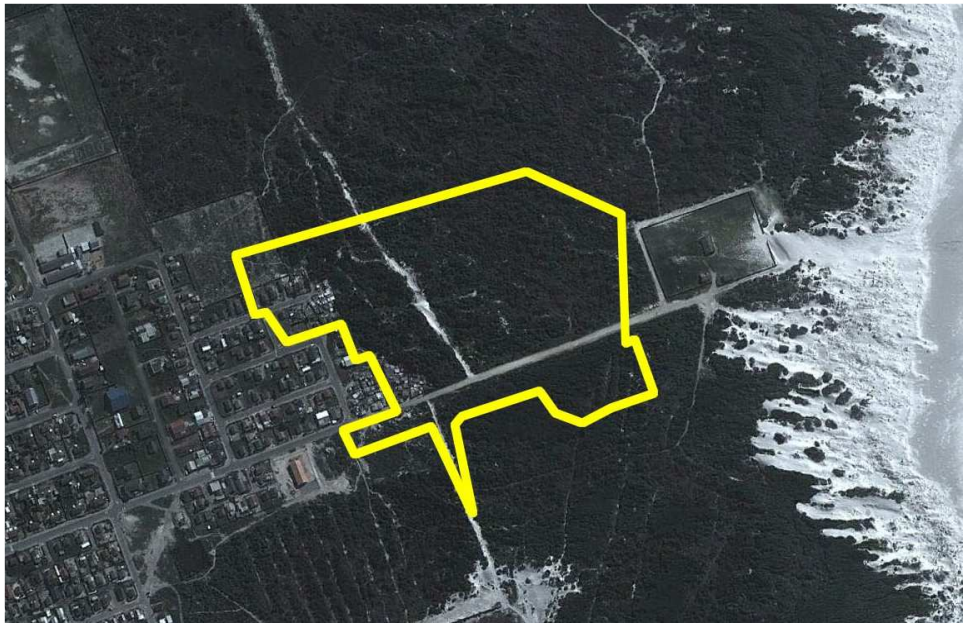


Figure 4.4.13.20.2 Struisbaai Site C Aerial Photograph

4.4.13.20.1 Property Description: RE/856, RE/922, RE/932
4.4.13.20.2 Size: 24.88ha
4.4.13.20.3 External Access
4.4.13.20.4 Buildings: Part of existing settlement on site
4.4.13.20.5 Community Facilities: within 1km
4.4.13.20.6 Schools: within 1km
4.4.13.20.7 Retail Facilities: within 1km
4.4.13.20.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.20.9 Current Use: Vacant
4.4.13.20.10 Ownership of Site: Provincial Govt Western Cape
4.4.13.20.11 Current Zoning:
4.4.13.20.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.20.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.20.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 1268

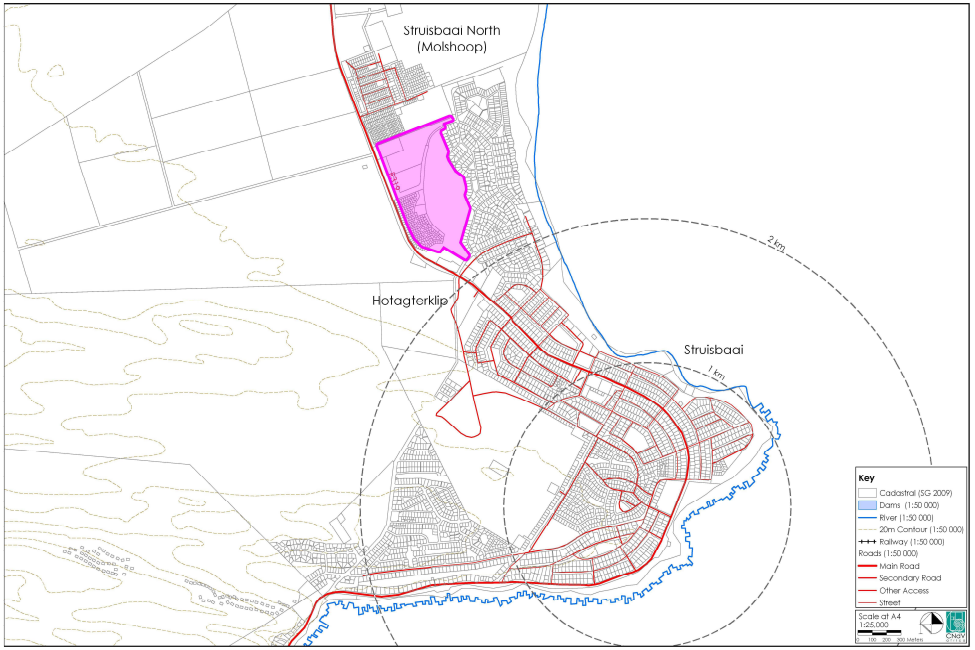


Figure 4.4.13.21.1 Locality

Photo 4.4.13.21.1 View of the site looking north-east from the R319

Figure 4.4.13.21.2 Struisbaai Site D Aerial Photograph

4.4.13.21.1 Property Description: RE/922
4.4.13.21.2 Size: 36.84ha
4.4.13.21.3 External Access
4.4.13.21.4 Buildings: No buildings on site
4.4.13.21.5 Community Facilities: within 1km
4.4.13.21.6 Schools: within 1km
4.4.13.21.7 Retail Facilities: within 1km
4.4.13.21.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.21.9 Current Use: Vacant
4.4.13.21.10 Ownership of Site: Expectra 525 Pty Ltd
4.4.13.21.11 Current Zoning:
4.4.13.21.12 Negative:
- Not within 1km of town
- Buildings that may have to be replaced;

4.4.13.21.13 Positive:
- Land is vacant

4.4.13.21.14 Proposed Use:
- Number of High Income units at 500m²: 20du/ha
- Total Number of Units: 736

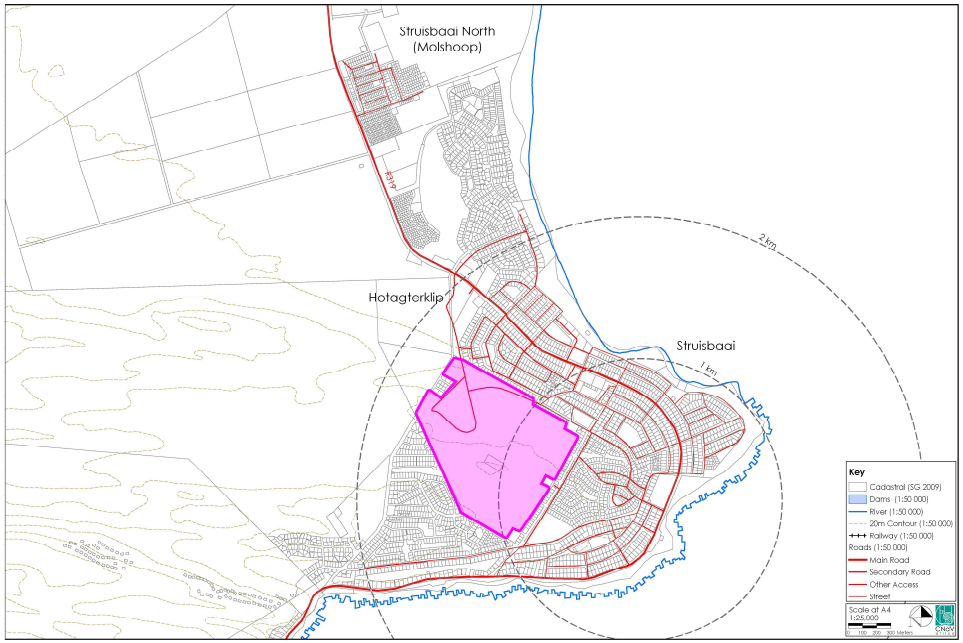


Figure 4.4.13.22.1 Locality

Photo 4.4.13.22.1 View of the site looking south from Industria Road

Figure 4.4.13.22.2 Struisbaai Site E Aerial Photograph

4.4.13.22.1 Property Description: Erven 1256 and 1255
4.4.13.22.2 Size: 81.13ha
4.4.13.22.3 External Access
4.4.13.22.4 Buildings: No buildings on site
4.4.13.22.5 Community Facilities: within 1km
4.4.13.22.6 Schools: within 1km
4.4.13.22.7 Retail Facilities: within 1km
4.4.13.22.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.22.9 Current Use: Vacant
4.4.13.22.10 Ownership of Site: Plaaslike Oorgangsraad - Struisbaai
4.4.13.22.11 Current Zoning:
4.4.13.22.12 Negative:
- Not within 1km of town
- Buildings that may have to be replaced;

4.4.13.22.13 Positive:
- Land is vacant

4.4.13.22.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 4137

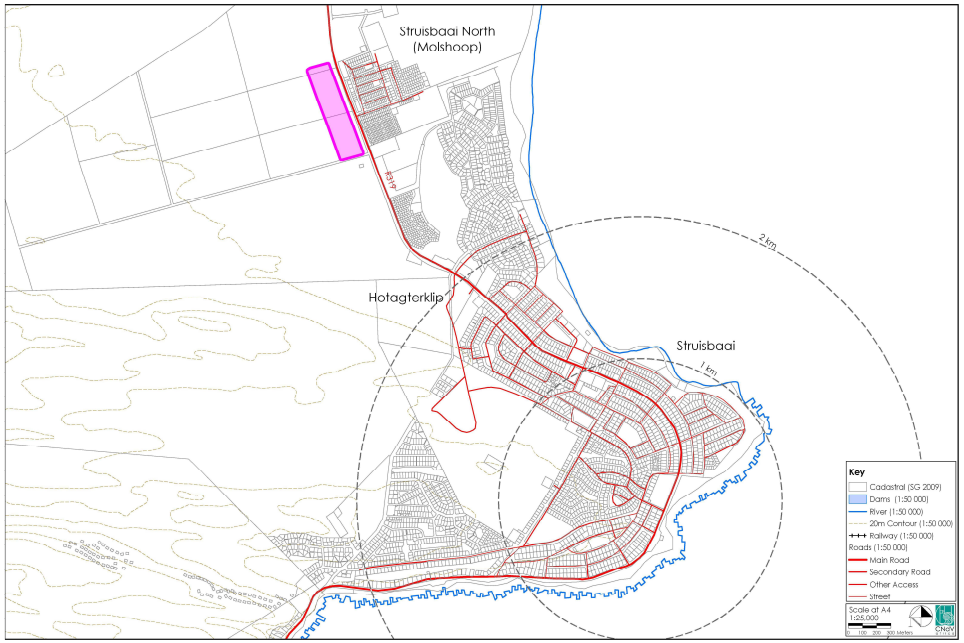


Figure 4.4.13.23.1 Locality

Photo 4.4.13.23.1 View of the site looking north-west from the R319

Figure 4.4.13.23.2 Struisbaai Site F Aerial Photograph

4.4.13.23.1 Property Description: Erven 929, 930, 931
4.4.13.23.2 Size: 10.85a
4.4.13.23.3 External Access
4.4.13.23.4 Buildings: Buildings on site
4.4.13.23.5 Community Facilities: within 1km
4.4.13.23.6 Schools: within 1km
4.4.13.23.7 Retail Facilities: within 1km
4.4.13.23.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.23.9 Current Use: Vacant
4.4.13.23.10 Ownership of Site: Struisbai Estates Pty Ltd, Greef Louis Botha Boyd (Pvt)
4.4.13.23.11 Current Zoning:
4.4.13.23.12 Negative:
- Not within 1km of town
- Buildings that may have to be replaced

4.4.13.23.13 Positive:
- Land is vacant

4.4.13.23.14 Proposed Use:
- Tourism development

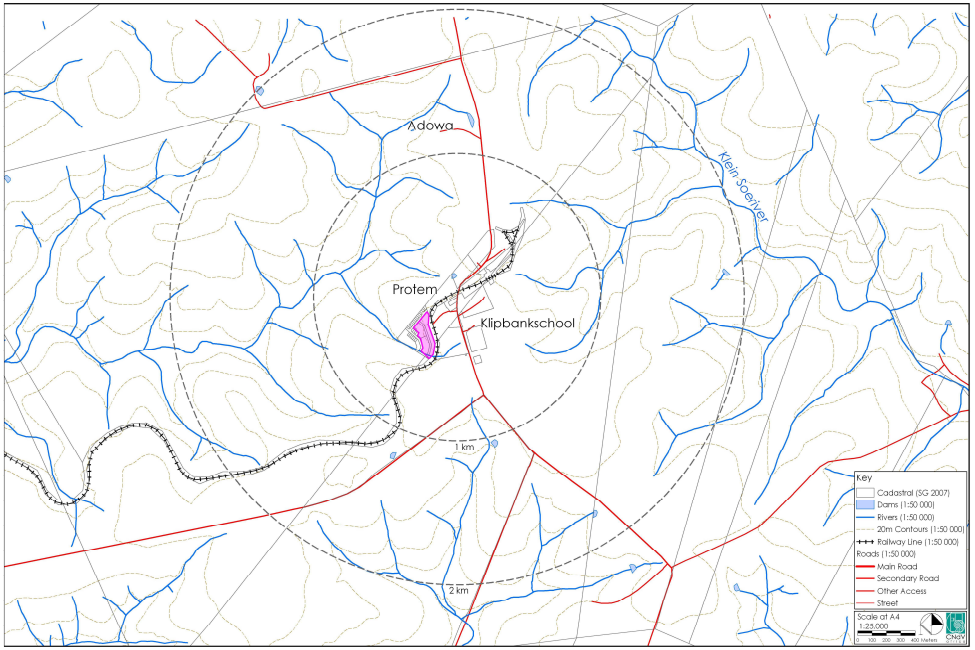


Figure 4.4.13.24.1 Locality

Figure 4.4.13.24.2 Protem Site A Aerial Photograph

Photo 4.4.13.24.1 View of the site looking

4.4.13.24.1 Property Description: Farm portions 26/7, 27/7, 22/7, 30/7 and 68/7
4.4.13.24.2 Size: 2.53ha
4.4.13.24.3 External Access
4.4.13.24.4 Buildings: Building on site
4.4.13.24.5 Community Facilities: within 1km
4.4.13.24.6 Schools: within 1km
4.4.13.24.7 Retail Facilities: within 1km
4.4.13.24.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.24.9 Current Use: Vacant
4.4.13.24.10 Ownership of Site: Adona Trust (Pvt)
4.4.13.24.11 Current Zoning:
4.4.13.24.12 Negative:
- Buildings that may have to be replaced;

4.4.13.24.13 Positive:
- Land is vacant

4.4.13.24.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 129

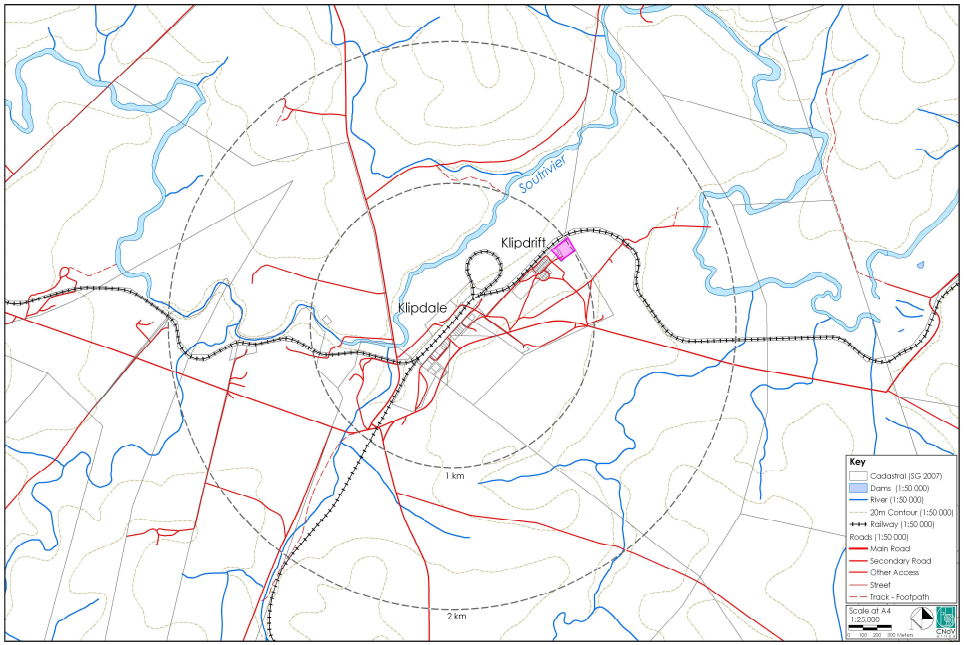


Figure 4.4.13.25.1 Locality

Photo 4.4.13.25.1 View of the site looking north from the

Figure 4.4.13.25.2 Klipdale Site A Aerial Photograph

4.4.13.25.1 Property Description: Erven 29, 65, 32
4.4.13.25.2 Size: 1.43ha
4.4.13.25.3 External Access
4.4.13.25.4 Buildings: Buildings on site
4.4.13.25.5 Community Facilities: within 1km
4.4.13.25.6 Schools: within 1km
4.4.13.25.7 Retail Facilities: within 1km
4.4.13.25.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.25.9 Current Use: Vacant
4.4.13.25.10 Ownership of Site: Anglican Church of SA, District Council - Overberg
4.4.13.25.11 Current Zoning:
4.4.13.25.12 Negative:
- Buildings that may have to be replaced;

4.4.13.25.13 Positive:
- Within 1km of town
- Land is vacant

4.4.13.25.14 Proposed Use:
- Number of BNG units at 195m²: 51 du/ha
- Total Number of Units: 72

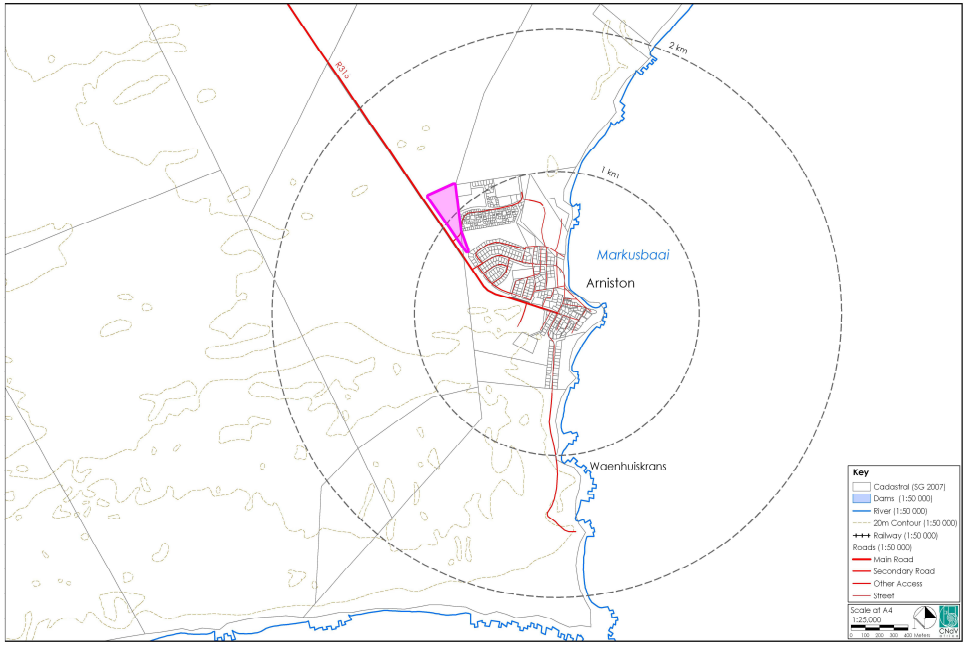


Figure 4.4.13.26.1 Locality

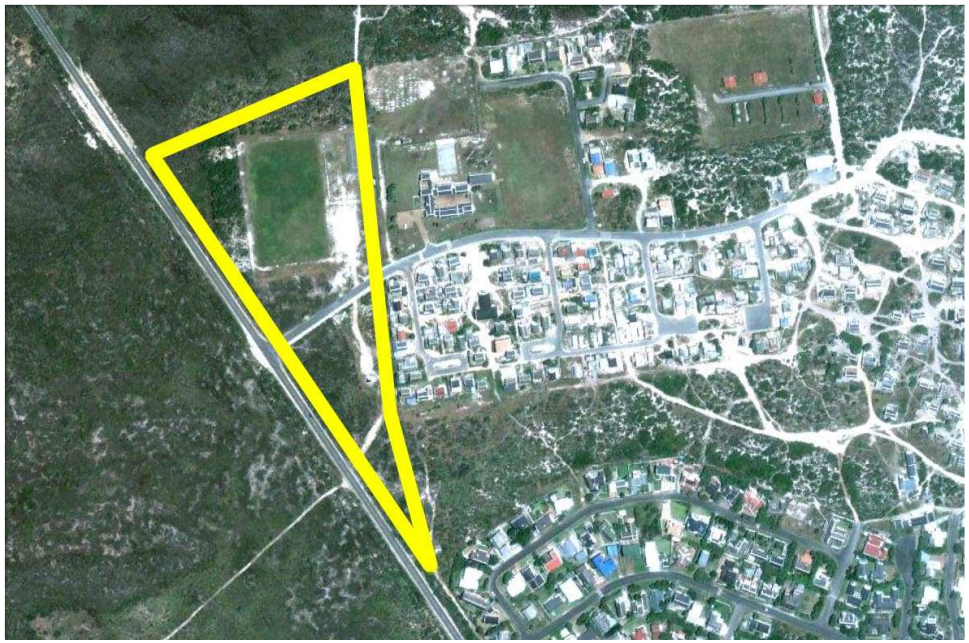


Figure 4.4.13.26.2 Arniston Site A Aerial Photograph

Photo 4.4.13.26.1 View of the site looking north-east from the R316

4.4.13.26.1 Property Description: Erf 16/264
4.4.13.26.2 Size: 4.75ha
4.4.13.26.3 External Access
4.4.13.26.4 Buildings: No buildings on site
4.4.13.26.5 Community Facilities: within 1km
4.4.13.26.6 Schools: within 1km
4.4.13.26.7 Retail Facilities: within 1km
4.4.13.26.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.26.9 Current Use: Vacant
4.4.13.26.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.26.11 Current Zoning:
4.4.13.26.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.26.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.26.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 242

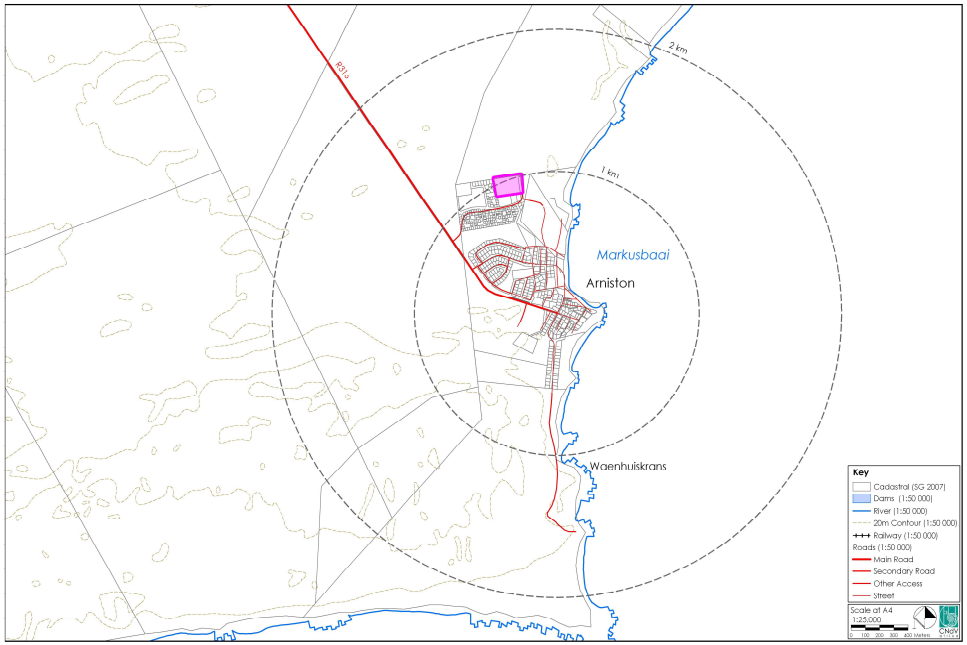


Figure 4.4.13.27.1 Locality

Photo 4.4.13.27.1 View of the site looking north from Camp Street

Figure 4.4.13.27.2 Arniston Site B Aerial Photograph

4.4.13.27.1 Property Description: Erven 376 and 377
4.4.13.27.2 Size: 2.45ha
4.4.13.27.3 External Access
4.4.13.27.4 Buildings: Buildings on site
4.4.13.27.5 Community Facilities: within 1km
4.4.13.27.6 Schools: within 1km
4.4.13.27.7 Retail Facilities: within 1km
4.4.13.27.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.27.9 Current Use: Vacant
4.4.13.27.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.27.11 Current Zoning:
4.4.13.27.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.27.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.27.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 124

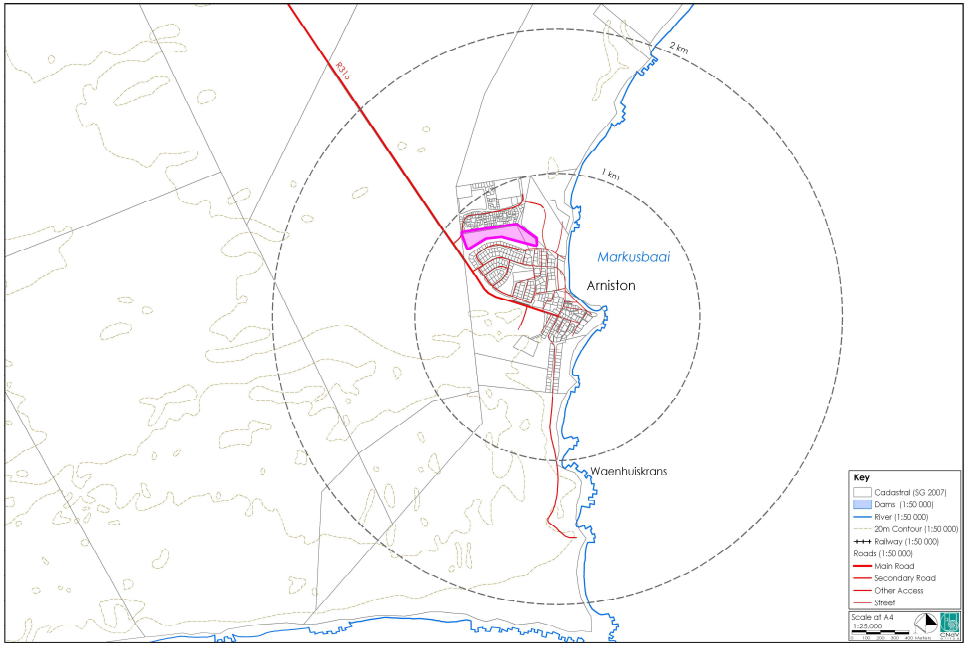


Figure 4.4.13.28.1 Locality

Photo 4.4.13.28.1 View of the site looking east from the R316

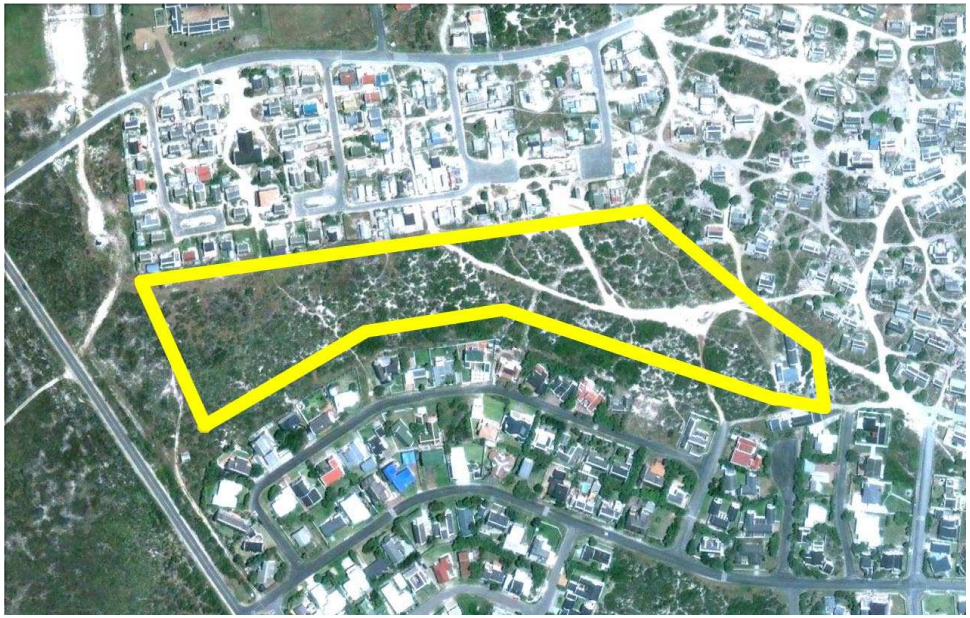


Figure 4.4.13.28.2 Arniston Site C Aerial Photograph

4.4.13.28.1 Property Description: no Erf number found and Erf 117
4.4.13.28.2 Size: 5.47 ha
4.4.13.28.3 External Access
4.4.13.28.4 Buildings: Buildings on edge of site
4.4.13.28.5 Community Facilities: within 1km
4.4.13.28.6 Schools: within 1km
4.4.13.28.7 Retail Facilities: within 1km
4.4.13.28.8 Services Availability and Capacity
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.28.9 Current Use: Vacant
4.4.13.28.10 Ownership of Site: Not shown
4.4.13.28.11 Current Zoning:
4.4.13.28.12 Negative:
- Buildings that may have to be replaced;

4.4.13.28.13 Positive:
- Within 1km of town
- Land is vacant

4.4.13.28.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Number of GAP units at 250m²: 40du/ha
- Total Number of Units: 260

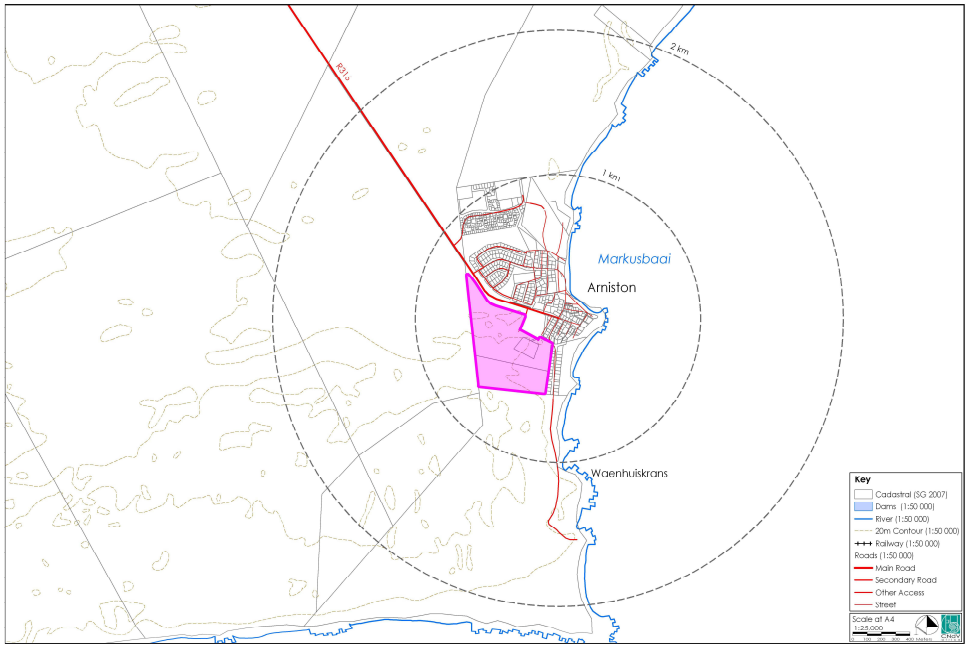


Figure 4.4.13.29.1 Locality

Photo 4.4.13.29.1 View of the site looking south from the R316

Figure 4.4.13.29.2 Arniston Site D Aerial Photograph

4.4.13.29.1 Property Description: no Erf number found
4.4.13.29.2 Size: 27.46ha
4.4.13.29.3 External Access
4.4.13.29.1 Buildings: No buildings on site
4.4.13.29.2 Community Facilities: within 1km
4.4.13.29.3 Schools: within 1km
4.4.13.29.4 Retail Facilities: within 1km
4.4.13.29.5 Services Availability and Capacity
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.29.1 Current Use: Vacant
4.4.13.29.2 Ownership of Site:
4.4.13.29.4 Current Zoning:
4.4.13.29.1 Negative:
- Camping site to be relocated

4.4.13.29.2 Positive:
- Within 1km of town
- Land is vacant

4.4.13.29.1 Proposed Use:
- New Development Area (SDP's to be prepared)

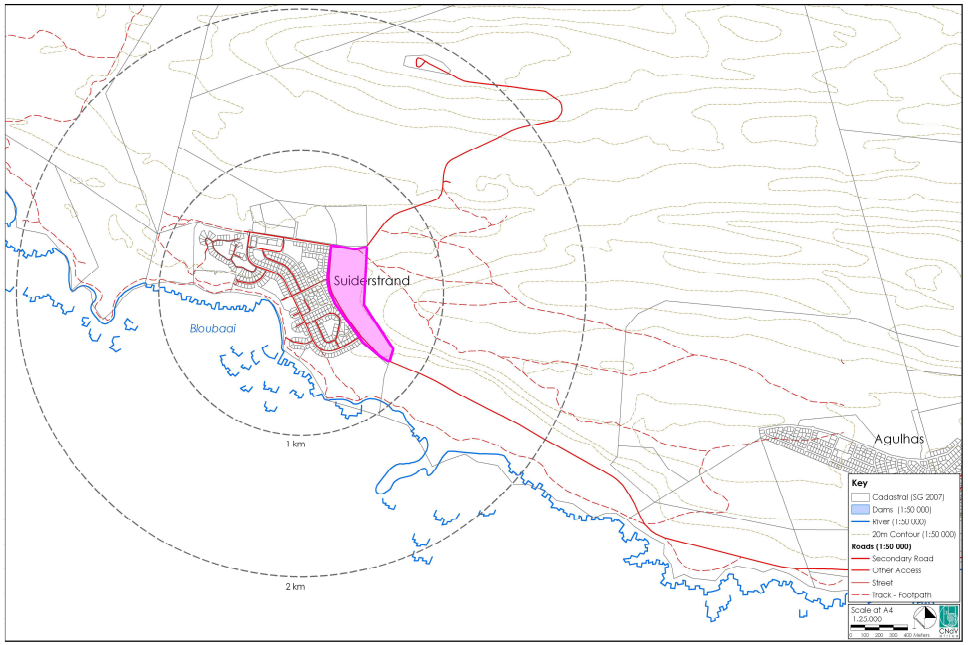


Figure 4.4.13.30.1 Locality

Figure 4.4.13.30.2 Suiderstrand Site A Aerial Photograph

Photo 4.4.13.30.1 View of the site looking south from Kamp Street

4.4.13.30.1 Property Description: Erf ……
4.4.13.30.2 Size: 6.96ha
4.4.13.30.3 External Access
4.4.13.30.4 Buildings: No buildings on site
4.4.13.30.5 Community Facilities: within 1km
4.4.13.30.6 Schools: within 1km
4.4.13.30.7 Retail Facilities: within 1km
4.4.13.30.8 Services Availability and Capacity:
- Sewerage: Assumed sufficient capacity in the system
- Water: Assumed sufficient capacity in the system
- Electricity: Assumed sufficient capacity in the system

4.4.13.30.9 Current Use: Vacant
4.4.13.30.10 Ownership of Site: Cape Agulhas Municipality
4.4.13.30.11 Current Zoning:
4.4.13.30.12 Negative:
- More than 1km from centre of town
- Floodline?

4.4.13.30.13 Positive:
- Receiving community is generally of the same income category;
- Close to the industrial area for job opportunities;
- Land is vacant;

4.4.13.30.14 Proposed Use:
- Number of BNG units at 195m²: 51du/ha
- Total Number of Units: 354

5. SYNTHESIS

5.1 NATURAL SYSTEMS

5.1.1 ABI and CAM

The land within the Municipality plays a key role in the bio-diversity conservation of the Cape Floral Kingdom, particularly on the Agulhas Plain.

This has led to the Agulhas Biodiversity Initiative (ABI). This seeks to extend the formal conservation initiatives of De Hoop Nature Reserve and Agulhas national Park into the surrounding privately owned land.

The ABI facilitates an important range of cross-cutting conservation, economic and employment opportunities in the form of eco-tourism and agriculture often on the same property.

5.1.2 Agri-Ecological Rooms

The varying land use and environmental conditions across the Municipality result in three distinct agri-ecological rooms, see Figure 5.1.2.1:

- **The Rûens** – the rolling foothills of the Bredasdorp Mountains to the south and the Rietpoel – Protem Hills to the north enclose a fan-shaped sub-region intensively farmed for wheat, barley, and canola. The area of intensive farming in this sub-region corresponds almost exactly with the area of critically endangered bio-diversity.

  There are some significant remnants of critically endangered biodiversity mainly comprising renosterveld priority clusters which should be protected.

  There are two ways in which this could happen, either through progressive rotational grazing management on this land, or through proclaiming private or public nature reserves and conservancies.

- **The Western Agulhas Plain** – comprises an extremely complex landscape of large wetlands, intensive farming and degraded veld. The southern portion of this region is being incrementally protected by the Agulhas National Park and its extensions. Those areas of critically endangered and endangered biodiversity not included in intensive farming areas represent important conservation or progressive veld management opportunities. Much work has already been done in forming public private partnerships for the conservation of this area integrated with progressive agricultural practises.

- **The Eastern Agulhas Plain** and De Hoop Nature Reserve – this relatively homogenous, large area in contrast to the Western Agulhas Plain comprises SADF land to the west including Bredasdorp Air Force base with an international standard runway and De Hoop Nature area to the east. There are some large areas of degraded veld to the west but the remainder is in relatively pristine condition due to its nature reserve status. This area functions as a largely uninhabited wilderness area except for management activities and visitors to De Hoop Nature Reserve and occasional activity at the missile testing ground from local and international aviation users.

5.1.3 Local Landscape Linkage Corridors

To strengthen biodiversity and conservation eco-tourism opportunities a number of landscape linkage corridors have been identified, see Figure 5.1.2.1.

1. Overstrand Coast
2. Bredasdorp – Babylonstower Mountains range
3. Renosterveld CBAs north to Langeberg via Stormsuur
4. Renosterveld CBAs east to Hessequa cluster at CBAs
5. Breede River Valley transect integration
6. Hessequa Coast
7. Agulhas National Park – De Hoop coastal link

5.1.4 Application of Spatial Planning Categories (SPCs) outside the Urban Edge

The patterns noted above provide the basis for applying SPCs in rural areas outside of the Urban Edges of settlements.

Core 1: All statutorily proclaimed conservation areas including L'Agulhas National Park, De Hoop Provincial Nature Reserve and Municipal Nature Reserves.

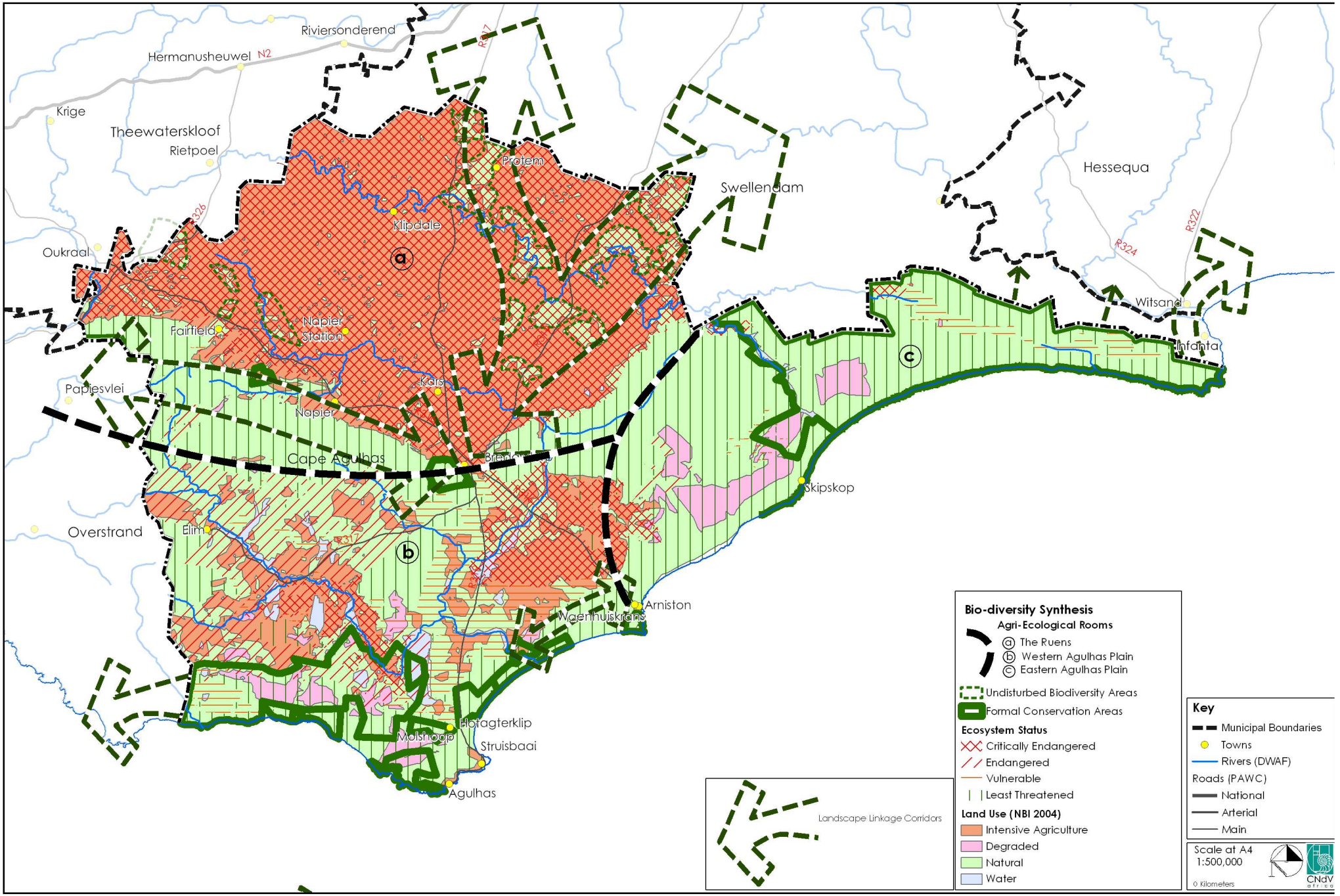


Figure 5.1.2.1 Biodiversity Synthesis

Ecological corridors in land not formally proclaimed but which promotes continuity of corridors.

Core 2: All river and wetland corridors to a width of at least 30m from the bank on both sides in which no intensive agriculture or urban development should occur.

Buffer 1: Natural land which can be used for non-destructive activities, e.g. extensive agriculture: grazing according to veld management principles that will enhance species diversity and carrying capacity.

Intensive Agriculture: Ploughing: mainly the Ruens and a large tract of land on the Agulhas Plain which should coexist with conservation areas, using organic farming methods to minimise their environmental impact.

5.2 BUILT ENVIRONMENT AND SOCIO-ECONOMIC CONDITIONS

5.2.1 Primary Order Settlements

CAM has an unbalanced settlement hierarchy with Bredasdorp as the main town in the Municipality having by far the largest population and range of services. It is both an agricultural and tourism service centre and will benefit from the Air Force presence at the nearby base.

This bias towards Bredasdorp is deepened by the intensely seasonal nature of the activities in the coastal towns, with the exception of their fishing communities. This imbalance is increased by the high value of coastal towns resulting in their disproportionate contribution to the Municipalities' rates income and which properties imbalance is exacerbated by their extremely high but very intermittent peak demand for services. This is a nightmare situation for the rendering of services whose technologies are based on a 24/7 265 days constant delivery period. The seasonal winter rainfall represents a further dislocation with the main usage demand in summer.

The housing need in Bredasdorp is estimated at approximately 2122 units (HSP, March 2012).

5.2.2 Second Order Settlements

Napier and Struisbaai – Agulhas are the next two important towns in the settlement hierarchy although of a very different nature from one another. Napier is a picturesque inland village set in the foothills of the Bredasdorpberg whereas Struisbaai and Agulhas are coastal villages. Although both of them arose as primary production service centres. Napier – agriculture, and Struisbaai – Agulhas fishing, Bredasdorp has taken over much of this role, and the two settlements are much more tourism and retiree orientated, although to very different markets.

Napier and Struisbaai have a housing need of 419 and 290 units respectively (HSP, March 2012) which it is intended to clear in the current 5 year period in both cases.

Struisbaai – Agulhas is facing development pressure to increase its range of 2nd home tourist and holiday accommodation. This has to be carefully managed so as to enhance rather than detract from the area's sense of place and biodiversity resources. An important developmental challenge facing Struisbaai-Agulhas is the effective spatial and economic re-integration of the Molshoop community.

5.2.3 Third Order Settlements

The 3rd order settlement in the CAM are Elim and Arniston-Waenhuiskrans again of a similar size in population but very different in nature.

Elim is a mission owned settlement with extremely strong community codes of property, building and land usage. It has a strong agricultural and traditional skills base, particularly in thatching and because of its scenic appearance and traditional lifestyles has great tourism potential. However, the exploitation of this potential requires careful management.

Elim is also only accessible by gravel road from Gansbaai which limits access from tour buses. Should the tarring of the road between Gansbaai and Elim be completed Elim will potentially benefit greatly. Elim has no registered housing backlog as this independent community caters for its own needs.

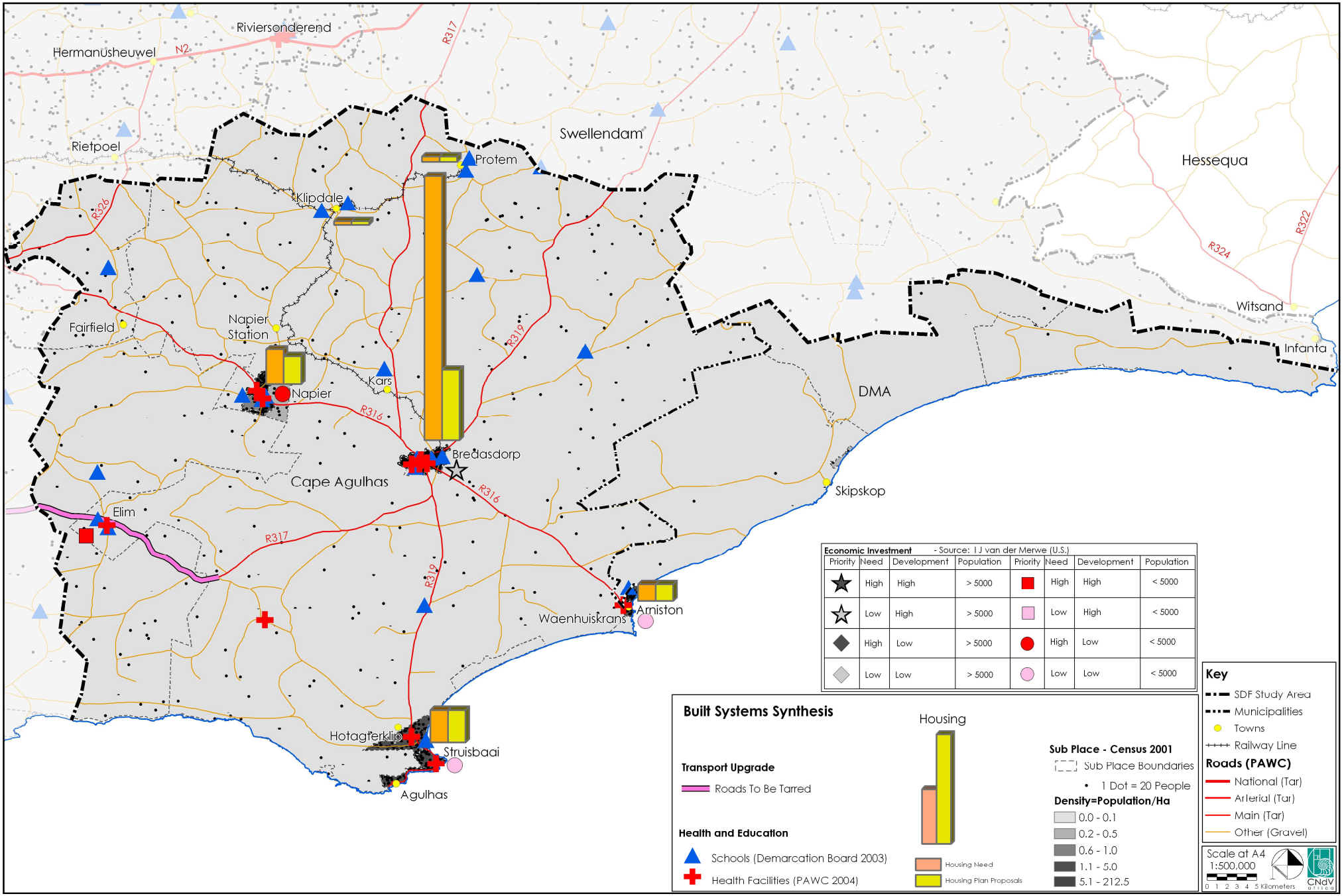


Figure 5.2.1 Built Synthesis

Arniston-Waenhuiskrans is a popular tourist destination whose attraction is enhanced by its picturesque setting and nodes coastal architecture. However, these attractions, together with the improved road access brought about by the tarring of the main access road, has caused considerable urban development pressure on the village which has the potential to undermine the qualities that created this demand.

As with Struisbaai, Arniston – Waenhuiskrans also faces an issue with the integration of the fishing community. Although in this case the residential accommodation of the fishing community was not physically displaced they have still suffered from the restructuring of fishing quota allocations as well as the general decline in fishing resources. Furthermore, due to harbour limitations many fishers from this community, in fact, travel to Struisbaai. The housing need in Arniston is estimated at approximately 248 units (HSP, March 2012).

5.2.4 Minor Settlements

There are a number of small settlements or hamlets in the intensively farmed northern sub-region of the Municipality including Fairfield, Kars, Klipdale and Protem.

These settlements are generally provided with primary schools but are dependent on Bredasdorp or possibly Swellendam in the case of Klipdale and Protem for all other community and economic services. Protem and Klipdale have housing backlogs of 50 and 33 respectively which it is intended to address in the near future.

- **Concerns**

Care must be taken that new housing projects are appropriately designed with regard to their appearance. Service requirements must also be reviewed as these small settlements and projects are difficult to service efficiently. Off-grid technologies including rainwater harvesting, solar hot water heating, grey water recycling, dry or small home sewage treatment, and photo-voltaic cell or small-scale wind power generation should all be investigated.

On the economic front the district is fortunate in that, although on the one hand there is a long term decline in employment propensity and economic potential in the primary economic sectors of agriculture and fishing, there is the potential for this to be offset to some degree by the region's increasing tourism and retirement potential.

It is important that CAM has in place effective policies to minimise the impact of the decline in the primary sectors and maximise the potential of the growth sectors.

Opportunities for Black Economic Empowerment (BEE) and Land Reform are also two important policy issues that must be addressed as a golden thread through the other policy arenas.

6 SUMMARY OF ANALYSIS AND KEY ISSUES

6.1 CLIMATE CHANGE

- Increasing volatility of floods and storms, e.g. 2008, Struisbaai and Agulhas.
- Variable impact on crops due to increased temperature and declining rainfall – worse for cereal crops, better for wine and grape production.

6.2 PROTECTION OF SPECIAL HABITATS

6.2.1 Fynbos and Renosterveld

- Approximately half the municipality is classified Critically Endangered and another quarter is Endangered or Threatened.
- Impact of Intensive Agriculture on Renosterveld (only 4% remaining).

6.2.2 River and Wetland Systems

- Poor quality of river systems

6.3 CONSOLIDATING CONSERVATION AREAS (BALANCING CONSERVATION AND AGRICULTURE)

6.3.1 Protected Areas

- Need to protect Special Habitats
- Current conservation efforts need to be consolidated

6.3.2 Special Management Areas

- Various conservation initiatives: Nuwejaars Wetland SMA

6.3.3 Agulhas National Park (Current and Proposed Boundary)

- Various conservation initiatives to consolidate park

6.3.4 Wetland Conservation Areas

- Ensure protection of wetlands outside of formal conservation areas.

6.3.5 River Management Corridor

- Proclaim 10m to 30m (from banks) ecological corridors or wider dependency on floodline or wetlands.

6.3.6 Intensive Agriculture

- Main contributors to gross farming income: Wheat (41,4%), Barley (30,3%) and Cultivated and wildflowers (10,5%).
- Promoting intensive and extensive in sensitive biodiversity conservation areas.

6.3.7 Agriculture

- Three distinct agri-ecological sub-regions each requiring unique responses in terms of strategies:
  - The Ruens – support consolidation and extension of Agulhas Nation Park; support and consolidate intensive cultivation areas including proper land husbandry; promote linking of Renosterveld patches within landscape linkage corridors;
  - Agulhas Plain – rich mosaic of intensive farming and egri-tourism (wine route) interspersed with important privately owned biodiversity conservation areas including wetlands whose core is the Agulhas National Park;
  - De Hoop and OTB – predominantly mature formal (De Hoop Nature Reserve) and effectively managed (OTB) biodiversity conservation area with realized and potential tourism opportunities.

6.4 TOURISM

(note: 2nd homes not considered part of tourism market. Only relevant if used for short term for letting.)

- Overberg attracts 8% of W Cape tourists
- 250 000 p.a. (2007)
- Agulhas National Park and Southern Tip of Africa - estimated 200 000 visitors p.a. (Cape Agulhas Tourism Development Framework, 2004)

- Provincial Tourism Plan – Agulhas coast Tourism Development Area
- Niches:
  - eco-tourism – hiking, bird watching, bio-diversity, fishing
  - adventure tourism – MTB.s, running, kayaking
  - agri-tourism – wine routes, farm stays
  - cultural tourism – (Kassiesbaai, Elim, Napier, Bredasdorp – museums)
- Attractions
  - Diversity of flora and fauna
  - Spectacular landscapes
  - Magnificent beaches
  - Whale watching
  - Largest concentration of shipwrecks on African coast
  - Rich Khoi heritage
  - Cape Agulhas – southern tip of Africa
  - Lighthouse

6.5 SOCIO ECONOMIC ISSUES

6.5.1 Population Growth

- Extra 5700 (2001-2010)
- Tripling or quadrupling of coastal town's population during holiday

6.5.2 The greater than 65 years old Population Co-Hort :

- L'Agulhas (31%)?
- Elim (15%)
- Struisbaai (12%)
- Napier (10%)

6.6 EMPLOYMENT

6.6.1 Employment not keeping up with Growth in Labour Force

- Trend from 1996 – 2001:
  - Labour force >20%
  - Employment > 2,4%
  - Unemployment > 5,3% (8,9% to 14,2%)
  - Bredasdorp: Highest number

  (Provincial Treasury, 2006)

6.7 ECONOMIC SECTOR TRENDS

6.7.1 Growth Sectors

- Community, social and personal services;
- Wholesale and Retail trade, catering and; accommodation;
- Transport and communication; and
- Construction.

6.7.2 Trends (1995 TO 2004)

- Mining and quarrying largest decline pa. (-12%) but not a significant sector

6.7.3 Recent Trends (2003 – 2004)

- Manufacturing largest growth +5,19% (?)
- Agriculture and mining on a decline (1995 – 2004)
- Largest employer sector = agriculture (unskilled)

  (Socio Economic Profile Overberg District, Provincial Treasury, 2006)

6.7.4 Main Contributors to Overberg GDP Outputs and Employment (2004)

- Manufacturing (20.1%) (600: 5th)
- Wholesale and Retail Trade (17.8%) (1550: 3rd)
- Finance (13.8%)
- Agriculture (12.5%) (1800: 1st)
- General government services (12.4%) (1700: 2nd)
- Construction (large employment contribution)

6.8 WATER CAPACITY OF SETTLEMENTS

- Struisbaai-Agulhas-Suiderstand water shortages in peak:
  - water scarce to start with – only supplied small fishing community
  - no rainwater harvesting, grey water recycling (500 mm p.a.: Kenton 30 000 l compulsory storage in upmarket residential houses);
- All other settlements have sufficient water;
- Overberg District supplies Klipdale and Protem; and
- Acceptable ground water supply in coastal towns
- Need in Spanjaardskloof (IDP)

6.9 REFUSE REMOVAL

- Regional landfill site at Bredasdorp
- Drop off facilities at Napier, Waenhuiskrans, Struisbaai (2006)
- All sites are permitted by DWAF.

6.10 SANITATION

- Waterborne system at Bredasdorp
- Septic tanks at Napier and coastal towns
- Existing tanker service – under pressure during peak holiday seasons.
- Construction of new sewerage scheme for Struisbaai and Arniston
- Existing purification works – sufficient capacity and quality

6.11 ELECTRICITY

- Municipality needs to budget for increased bulk electricity demands.
- Need in Napier,
- Upgrading of network: Struisbaai, Aniston, and L'Agulhas (IDP)
- No requirements for:
- solar hot water heating
- photovoltaic cell generation
- passive building design – minimise air conditioning:

6.12 STORMWATER

- Major flood damage experienced in Struisbaai-Agulhas
- Master Plan is currently being compiled – NB to manage major storms
- Proposed upgrading of gravel canals at places to concrete
- Need in Napier, Bredasdorp, Struisbaai Noord (IDP)

6.13 TRANSPORT

- 165kms tarred road,
- 34km untarred to be tarred over 30 years
- 80% of tarred roads are in good condition, 12% fair condition
- High priority roads requiring tarring:
- Elim to Gansbaai urgently requires tarring from Elim to Gansbaai
- Struisbaai North to Agulhas via Suiderstrand – scenic route

6.14 CURRENT COSTS FOR INFRASTRUCTURE UPGRADE

- Electricity R18m
- Waste water treatment R13m
- Stormwater and roads R37m
- Refuse Removal R5m
- Water R7m

Above suggest current approach to services provision in the short, medium and long term: UNSUSTAINABLE AND UNAFFORDABLE TO MUNICIPALITY!?

7 SPATIAL DEVELOPMENT PROPOSALS

The Municipal wide SDF proposals are shown on Figure 7.1 and in more detail for each of the sub-regions in Figure 7.2, 7.3 and 7.4.

The Spatial Development Proposals are organised as follows:

First; Proposals for the municipality as a whole are made in this section 7. These proposals focus on three main areas:

- Regional Linkages: - these describe mainly environmental and transport linkages which connect the municipality to its surrounding neighbouring municipalities and further afield;
- Spatial Planning Categories (SPCs): - these provide the broad land use management framework for managing the activities of the municipality as a whole so that the opportunities in its physical and spatial resources, for instance, land, water, and scenic views, can be exploited without damaging their long term sustainability; and,
- Urban Development: - this section sets out the overall policies and principles that will apply, where relevant, to the management of the urban settlements in the municipality.

Secondly; In Section 8 the relevant policies and principles, drawn from the Urban Development section described above, will be applied to each of the settlements as applicable.

Thirdly; Section 9, Implementation; will summarise the key projects and what is required for their realisation. In this regard it should be noted that other than through the Land Use Management System, the SDF itself is not responsible for its implementation. This will occur as follows:

- Through the project spending of the 5 year implementation plans including the HSP, Infrastructure, LED, Transport and Environmental, under the annual management of the IDP, budget and MTIEF;

- Co-ordination of the budget and development plans of the various, regional offices of national government departments, SoEs and parastatals operating in the municipality. In CAM's case key SoEs in addition to those generally found operating in a municipality include, Denel, SAAF, SANParks, CapeNature and Transnet, with respect to the future of the rail line; and,

- Development Control of private sector applications which may range from subdivisions of small plots within urban settlements to large stand-alone property development projects.

7.1 REGIONAL LINKAGES

7.1.2 Environmental Linkage corridors

Proposals:

i. Land falling generally within a landscape linkage corridor can continue to be used for its current purpose.

ii. Should this use cease then such land should be re-designated to the appropriate Core or Buffer SPC in keeping with that section of the landscape linkage corridor and the owners encouraged to formally conserve it using the relevant stewardship or conservancy program.

iii. If required and appropriate approvals for appropriate eco-conservation activities on this land can be considered.

Biodiversity conservation is considerably enhanced if remnant clusters of important vegetation are arranged within corridors even if there are breaks between the clusters because this promotes seed and animal movement. The Landscape Linkage Corridors are intended to promote this continuity, enhance biodiversity conservation as well as provide appropriate eco-tourism opportunities. Establishing linear corridors also promotes economic opportunities such as hiking trails in which the sense of wilderness is enhanced by the continuity of the experience. The longer the corridor, the more overnight opportunities can be created and thus

the contribution to the local economy increased as visitors find reasons to spend longer time in the area.
It is not proposed that the SPC classifying land within a linkage corridor is immediately changed on approval of this policy plan to conform with the main thrust of that particular corridor. For example, land productively farmed within a corridor identified for promoting the linkage of Renosterveld patches can remain classified as Intensive Agriculture rather than take on a Core or Buffer classification. However, the denoting of a Linkage Corridor indicates the future direction to which land should be put in the event of a change in land use. In the example above, if such land should no longer be used for its current use then the reversion of that land to Renosterveld should be encouraged and its reclassification as Core or Buffer SPC promoted and its inclusion in a conservancy or eco-tourism activity can be favourably considered.

Seven Landscape Linkage Corridors have been identified:

No	Name	Comment
1.	Agulhas National Park to Gansbaai (Coastal Corridor)	To link along the coast where possible as this continuity has been disturbed by settlements such as Pearly Beach and Franskraal but in particular to link with the considerable eco-tourism and conservancy projects around Grootbos above Franskraal.
2.	Bredasdorp Mountains (Floral Reserve)	The Bredasdorp Mountains serve as an important beacon to the location of Bredasdorp at their eastern toe, and are an important part of the municipality's sense of place. They form an impressive backdrop to views of the municipality looking south from the entry roads from the N1 and looking north from the coast. They are also an important bio-diversity link along the mountain range to Overstrand and Theewaterskloof municipalities to the west.
3.	Bredasdorp towards Stormsvlei (Renosterveld)	This corridor, and the one below, both start in Bredasdorp and then split. This one links a number of Renosterveld patches in a northerly direction towards Stormsvlei and the Riviersonderend Mountains.
4.	Bredasdorp towards Swellendam (Renosterveld)	This corridor, beginning together with No 3 above, links westwards towards Swellendam to include a large cluster of Renosterveld patches straddling the municipal border identified as a priority conservation area.
5.	De Hoop Nature Reserve Extension (Terrestrial, Aquatic and Marine)	Extending De Hoop Nature reserve to the Breede River will enable the continuity of an important transect of land including aquatic, terrestrial (including both flanks of the Posberg) and marine (already protected by De Hoop Nature Reserve), environments.
6.	De Hoop Nature Reserve Extension (Coastal Corridor)	To promote continuity of coastal strip to the east and manage the break in continuity created by the settlements of Cape Infanta, (currently Swellendam Municipality) and Witsands, (Hessekwa Municipality).
7.	Struisbaai to Arniston	This link will create an important continuity between Agulhas National Park and the large areas of conserved land under the ownership of Denel but managed as a nature reserve that link through to De Hoop Nature Reserve.

7.1.2 Transport

The need for upgrading facilities within three transport corridors has been identified and the potential of the airbase as a commercial airport needs to be investigated, see Table 2.2 and Figure 7.1:

Proposals:

i. The tarring of the road between Elim and Gansbaai should be prioritised with the Provincial Department of Transport and Public works for construction to start as soon as possible;

ii. A preliminary investigation, design and costing should be completed for the tarring of the road between Bredasdorp and Malgas;

iii. Negotiations should continue with Transnet for the upgrading and reintroduction of passenger and freight services, including a tourist train, on the rail line between Bredasdorp and Caledon linking to Cape Town

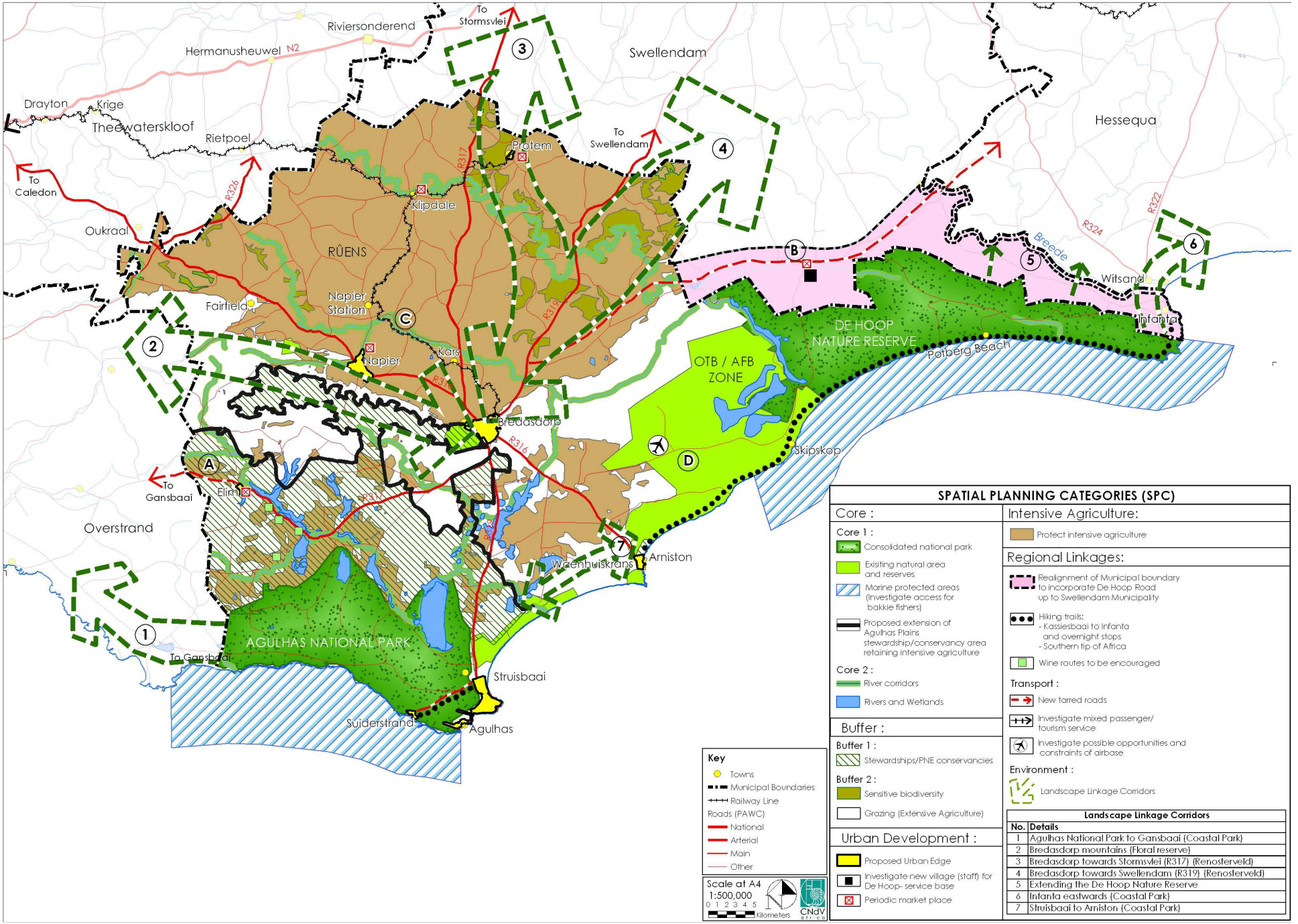


Figure 7.1 **Draft Spatial Development Framework**

No.	Name	Comment
A.	Bredasdorp to Gansbaai via Elim	The need for the tarring of the road from Elim to Gansbaai as been identified for a number of years and this project has from time to time appeared on the budget of the Department of Transport and Public Works only for it to be re-allocated. Completing the surfacing of this link would enable round trips from Caledon via Bredasdorp and Elim to Hermanus to be completed by coach. Currently the R316 operates as a regional cul-de-sac which is not as appealing to tourists as a round trip. This would considerably improve the tourism product in the area thereby strengthening support for the Elim wine route and the tourism products already available in Elim village.
B.	Upgrading road from Bredasdorp to Malgas	Upgrading this road will promote travel, particularly tourist travel from the N2, through Bredasdorp, thereby strengthening its business thresholds, to the popular Malgas river resort whose attractions include the river itself, holiday housing, the pont crossing point and the road to Infanta.
C.	Rail link between Caledon and Bredasdorp.	Upgrading this line to accommodate tourist and mixed passenger traffic from Bredasdorp in addition to grain freight will provide another tourism experience as well as an alternative public transport route. (Negotiations between the municipality and Transnet are currently underway in this regard.
D.	OTB/AFB Zone	Review report on potential of airbase to be converted into an airport including comparison with Upington airport as the nearest facility in scale taking an objective view of existing residential population, agricultural production, existing and potential and current distribution channels and other likely demand variables. Notwithstanding the exclusion on access to the general public investigate under what conditions proposed coastal trail could continue through OTB/AFB zone of De Hoop Nature Area. Notwithstanding the exclusion on access to the general public investigate possibility of western entrance to De Hoop through the OTB/AFB zone from R316 Bredasdorp-Arniston Road.

7.1.3 Boundary Demarcations

Proposal:
The municipality should make representations to the Demarcation Board to transfer the land between De Hoop nature reserve to the Breede River and north of the road between Malgas and Bredasdorp from Swellendam municipality to Cape Agulhas municipality.

The previous SDF recommended that a motivation be submitted to the Demarcation Board to transfer a piece of land around the entrance to De Hoop from Swellendam municipality to Cape Agulhas municipality as this location was identified as a possible satellite village for CapeNature employees.

Subsequently the background work for this amended SDF has indicated the desirability of transferring the slim peninsula of land between the northern border of De Hoop nature reserve and the Breede River from Swellendam to Cape Agulhas municipality for the following reasons:

- Bio-physically the Posberg, which falls under Cape Agulhas municipality, forms the western slopes of the Breede River valley, half of which river falls under Hessequa municipality and half of which falls under Swellendam municipality. Transferring this land to Cape Agulhas would mean that only two and not three municipalities would be responsible for managing the lower catchment;
- The R316 through Bredasdorp already provides a popular alternative route to Malgas and Cape Infanta for visitors and residents compared to the more direct but hilly, gravel and undulating route from the N2 near Heidelberg.
- Should the road between Malgas and Bredasdorp be upgraded travellers will even more likely to route through Bredasdorp on their way to Malgas and Cape Infanta.

7.2 SPATIAL PLANNING CATEGORIES (SPCs)

Figure 7.1 depicts the SPCs as follows. Proposals to assist with giving effect to the SPCs are shown in this table:

SPC	Proposals and Notes.
Core 1	Agulhas National Park, De Hoop Nature Reserve, OTB/AFB zone, Bredasdorp, Arniston and Napier nature reserves, **Proposals:** • **Support SANParks initiatives to extend and consolidate the national park.** • **Encourage the implementation of easily identifiable entrance portals so as to enhance access to the park.**
	Marine Reserves; Note: Review right of access conditions to marine conservation areas so that small scale fisher's livelihoods can be sustained, for example, by permitting small boat (bakkie) fishers to operate.
Core 2	**Proposals:** • **Proclaim wetlands on private and public property outside of formal conservation areas and privately owned conservancies as "core SPC" conservation areas.** • **Proclaim river management corridors as "core SPC" within 10-30m riparian no-go setback zones measured from the river-wetland banks taking into account flood plains to be delimited by freshwater ecologists.**
Buffer 1	**Proposals:** • **Promote registered stewardship areas, protected natural environment and conservancies on private land outside of the formal conservation areas of Cape Nature (De Hoop) and SANParks (L'Agulhas).** • Conforming with this SPC should be vigorously pursued on the Agulhas Plain so as to properly protect the various sensitive bio-physical resources including the wetlands, rivers and vegetation. Care should be taken that a balance is found between promoting bio-diversity conservation and supporting the farming investment in this sub-region.
Buffer 2	**Proposals:** • **Promote the conservation of areas of sensitive bio-diversity, for example Renosterveld patches in the Ruens, capable of being formally registered as conservancies or stewardship areas in the future. Give priority to such areas generally within landscape linkage corridors.** • **Encourage progressive veld management methods such as rotational grazing which can help to improve biodiversity in Extensive Agriculture areas.**
Intensive Agriculture	**Proposals:** • **Protect existing intensive agriculture from conversion to urban development, and biodiversity conservation including ecological river corridors beyond that proposed in this SDF;** • **Promote agri-tourism according to provincial guidelines for development outside of the Urban Edge** • **Support development of wine farms, their associated agricultural and tourism value add and employment growth while ensuring that sufficient land is retained for food production.** Other than ensuring that there is no ploughing within the riverine and ecological corridors and that the fertility of the land is being conserved, i.e. erosion is prevented and repaired, Intensive Agriculture should be supported, especially where it occurs close to or abutting urban settlements as it is the food, economic, and employment backbone of the local economy.
Urban Development	**Proposals:** All urban settlements as defined by their Urban Edge including golf courses and cemeteries but excluding civil infrastructure such as reservoirs, pipelines, waste water treatment works, electrical substations, solid waste disposal sites and small holdings with densities of less than 1 dwelling unit per 10 hectares shall be defined as Urban Development including residential development with a density of greater than 1 dwelling unit per 1 hectare.

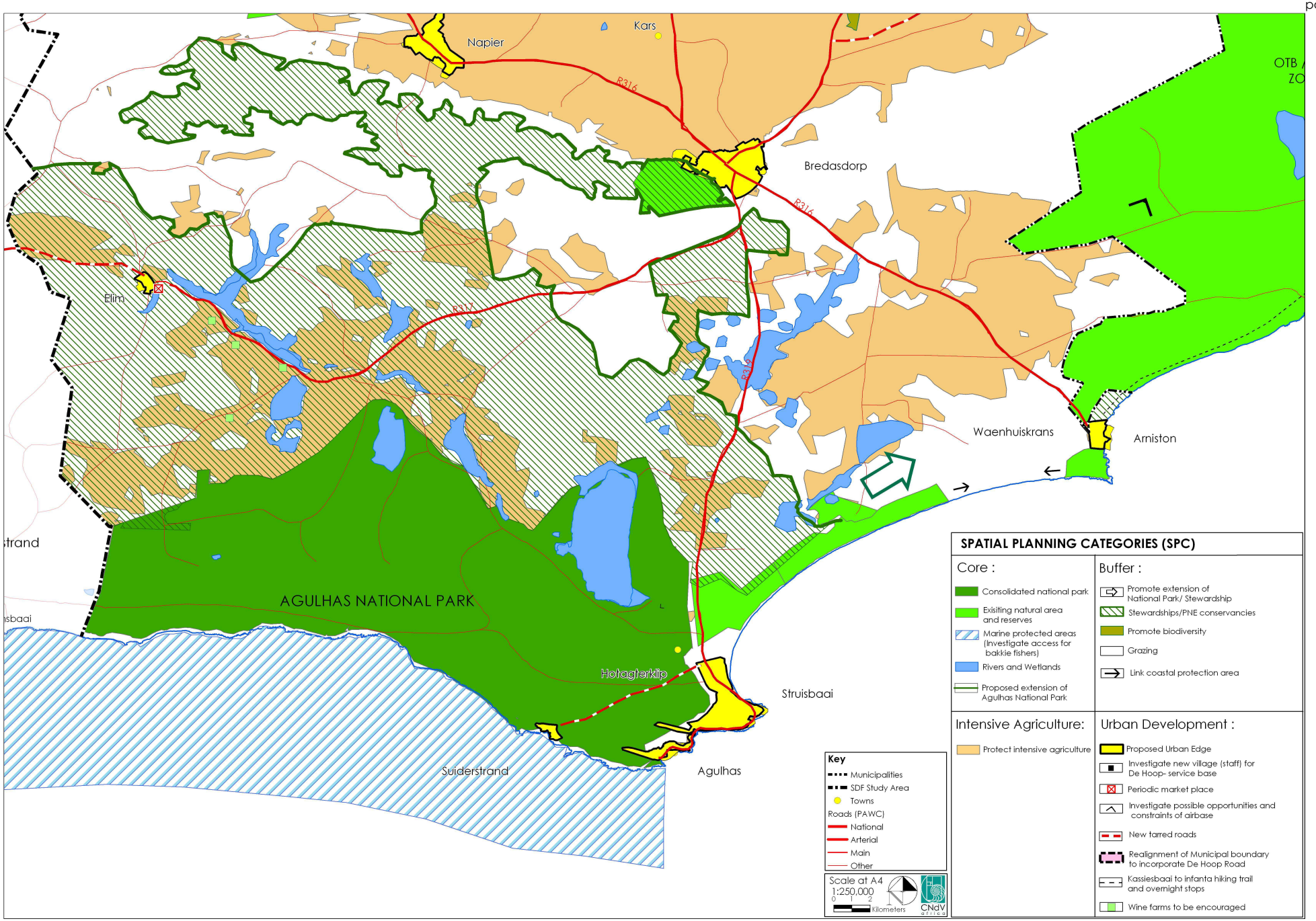


Figure 7.2 L'Agulhas Plains Proposals

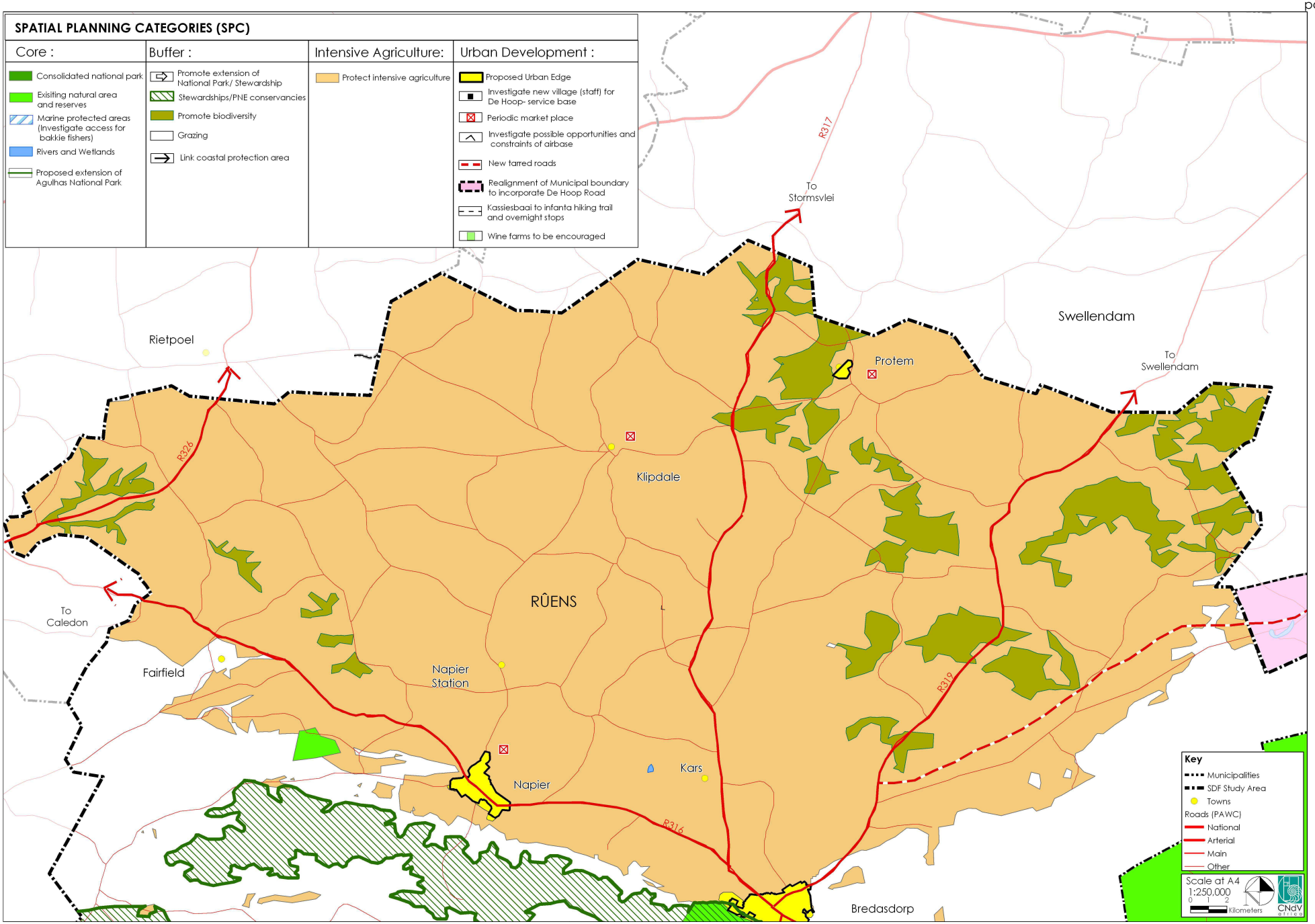


Figure 7.3 Ruens Proposals

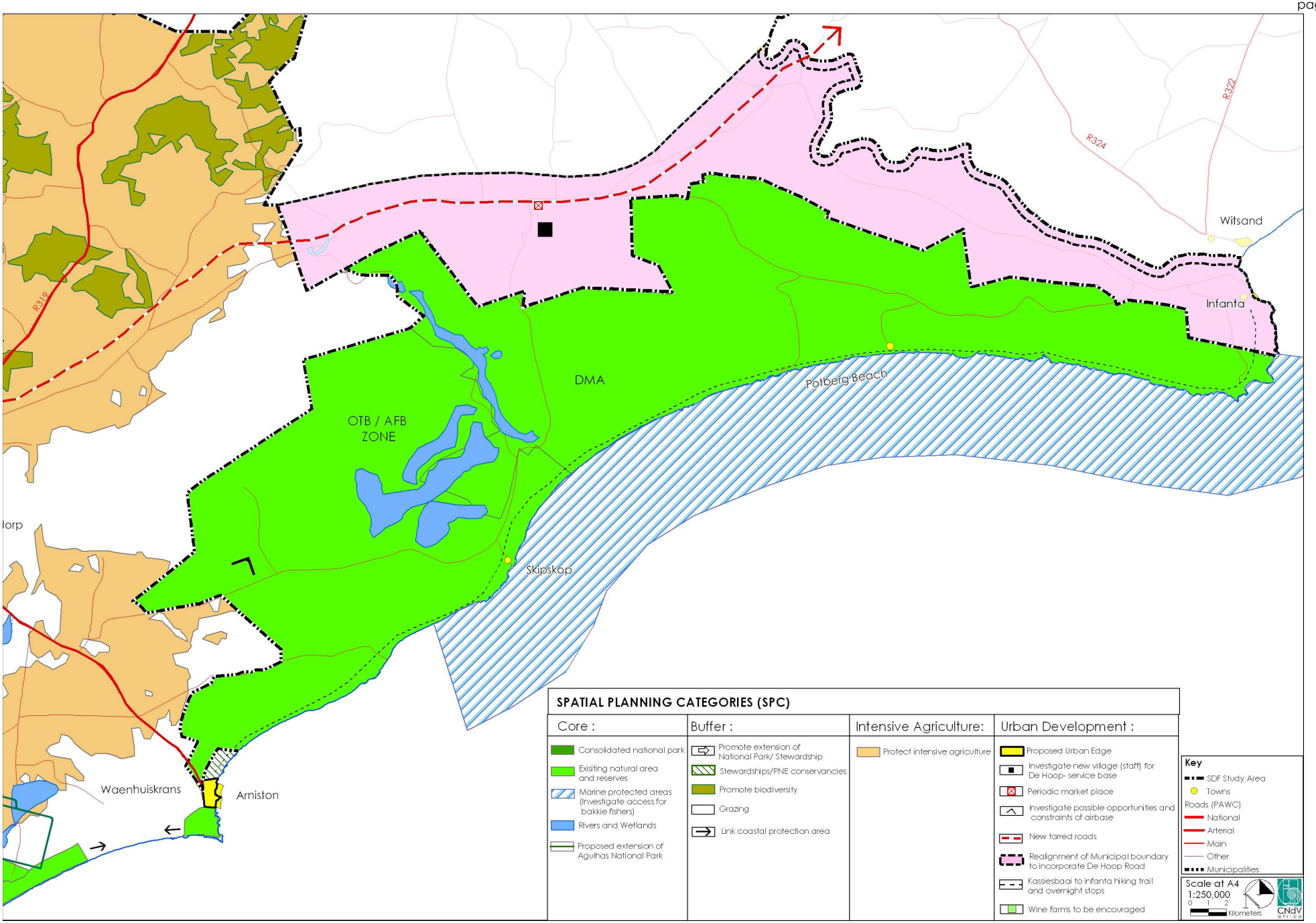


Figure 7.4 De Hoop Proposals

7.3 URBAN DEVELOPMENT

7.3.1 New Village – De Hoop Entrance

Proposals:

Investigate establishing a new agri-village / service node at the junction of the Malgas and De Hoop access road to serve the upgraded facilities at De Hoop and surrounding farms.

7.3.2. Periodic Markets

Proposals:

Establish a network of periodic markets similar to mobile Thusong or MPC centres to co-ordinate the delivery of mobile services (home affairs, pensions, library, clinic, etc.) and stimulate temporary market demand for the purchase of locally made fresh produce, arts and crafts.

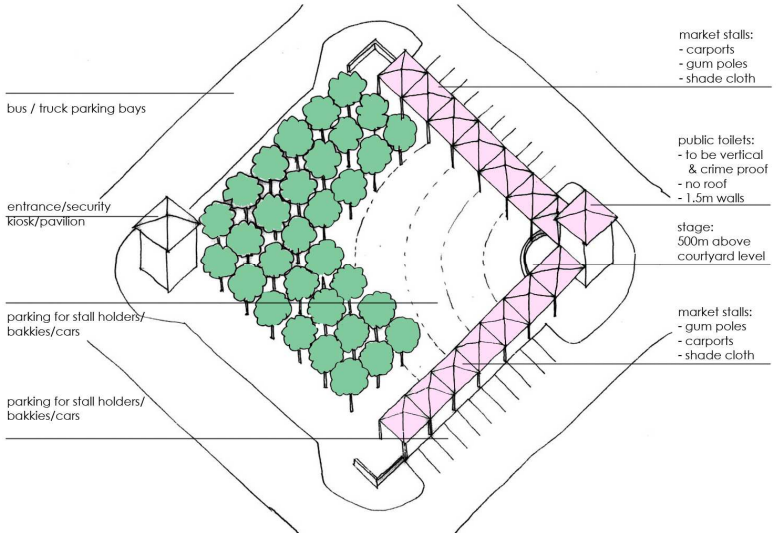


Figure 7.3.2.1a Periodic service centre (mobile Thusong (MPC) centre) concept

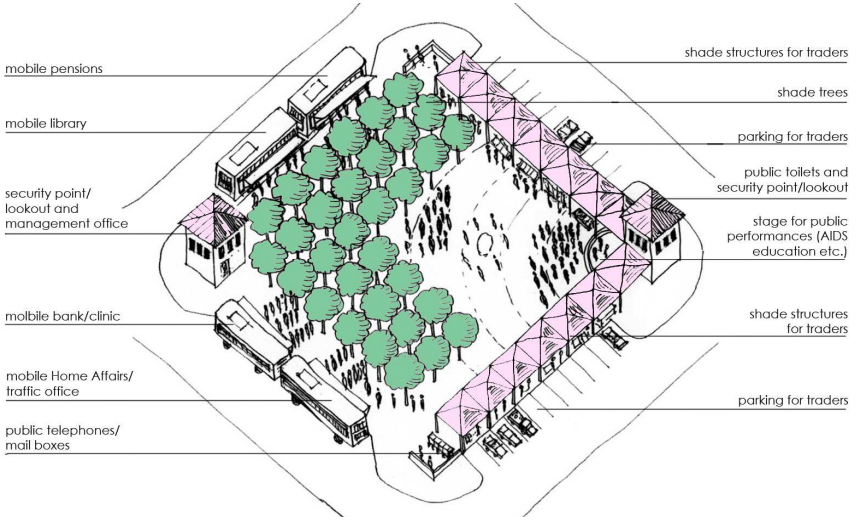


Figure 7.3.2.1b Periodic service activities

7.3.3 Restructuring of all Urban Settlements

Proposals:
As far as is practically possible restructured all urban settlements according to the principles of walking distance, functional integration, and socio-economic integration which should guide the implementation of new development areas, infill, intensification along main routes and rezonings subdivision and second dwellings, see Sections 7.3.4 and 7.3.5 below for more details.

This intensification of development should be promoted along the key strategic streets of an urban settlement in the form of mixed use, mixed income intensification corridor.

7.3.4 Intensification Corridors

Figure 7.3.4(b) shows the ingredients of an intensification corridor. It should be contrasted with Figure 7.3.4(a) which shows the existing situation before corridor development.

Although this is loosely based on an existing section of All Saints Street, Bredasdorp it typifies similar situations found in most South African urban settlements.

Figure 7.3.4(a) Existing situation of an intensification corridor before development

Figure 7.3.4(b) Ingredients of an intensification corridor

An Intensification Corridor is intended to promote a mutually supportive increase of residential and economic activity straddling the major routes of a settlement so as to:

- Contribute to its environmental quality by increasing levels of human activity, and provide opportunities for new and contemporary development while at the same time respecting and conserving a settlements' heritage, even if only for its tourist appeal;
- Increase its economic and employment opportunities within convenient access of residents;
- Make efficient use of expensive existing infrastructure, roads, pipe and cable networks; and,
- Increase contributions to the Municipal revenues through increased rates and service consumption charges.

When promoting an Intensification Corridor it will be necessary to bear in mind the possible need to address ceilings in transport and civil service capacities.

Important ingredients include:

7.3.4.1 *Higher density and greater height closer to spine road of intensification corridor.*

3 storey apartment blocks or rows of town houses with ground floor retail/office.

This can be developed incrementally over time by converting ground floor spaces as required.

7.3.4.2 Provide development control clarity

The boundaries of an Intensification Corridor should generally follow rear plot boundaries and mid-blocks. Alignment of this boundary provides development control clarity to councillors, officials and public, i.e. where certain types of development may be encouraged and where development should largely remain unchanged except for minor subdivisions or 2nd dwellings.

7.3.4.3 High quality urban environment

New and existing buildings should be encouraged to respect local urban character through reference to architectural and urban design guidelines for both new build and renovations in all sectors of the market including low income housing.

7.3.4.4 High quality pedestrian environment

A high quality of pedestrian environment at street level is very important. Attention must be given to:

- Street lighting;
- Tree planting;
- Width and comfort of sidewalk;
- Avoidance of unnecessary street furniture clutter, e.g. sharing of poles by street signs, lights, cables etc.;
- Shaded pedestrian colonnades attached to ground floor; and,
- 0 or max. 2m street building lines, especially onto spine road of corridor.

7.3.4.5 Maximise economic opportunities from well-located space

Markets and other opportunities to provide access to small and informal businesses such as markets should be promoted and should be firstly, well located; and secondly, provided with the necessary facilities, shade, services, toilets, etc.

7.3.4.6 Redevelopment to higher densities

Redevelopment of existing buildings to higher densities e.g. town house scheme should be promoted where appropriate, i.e. where important heritage buildings or precincts should not be negatively impacted.

7.3.4.7 Subdivisions and dwellings

These should definitely be encouraged inside the Intensification Corridor and should also be appropriate outside depending on the existing services capacity of the suburb and aspects such as heritage. In most towns upmarket residential areas are at such low densities that a conservative second dwelling and subdivision policy can be supported throughout.

7.3.5 Interface Projects

Proposals:

Housing (Human Settlements) projects should be mixed income wherever possible and their layout should take into account the principle of socio-economic interface, see Sections 3.4 and 7.3.5.

There are a number of National and Provincial policies directed at restructuring urban settlements that promote socio-economic integration on well-located land. In many settlements such well-located exists much of it vacant. Often such land is on smaller rather than larger pieces of land as would be expected the closer they are to CBDs. Single income, large mass housing projects are unable to take advantage of this well located land for a number of reasons including needing large sites to be viable; and because they often only include BNG or site and service units and thereby create a lot of opposition from existing residents.

A further challenge is that the new human settlement policy to promote the development of serviced sites rather than top structures is likely to result in even greater opposition from residents contemplating shacks in the initial years of these projects rather than formal houses. Bank valuers of surrounding formal properties also take a negative view of such developments thereby adding to the opposition. These factors result in human settlements being constructed on the urban periphery.

However, there are number of projects which have overcome these difficulties through various innovations.

Figure 7.3.5.1 shows a BNG project in the heart of Langebaan at the main intersection through which all traffic passes. It is surrounded by an upmarket golf estate which has steadily developed over the past 10 years even during the recession. It can be seen that careful attention was paid to the house design of the units in this scheme based on the traditional cottage design in this area as well as the boundary wall made from local stone found on site rather than pre-cast concrete panel walls so often used in these projects.

Figure 7.3.5.1 Langebaan RDP Scheme

Figure 7.3.5.2 shows how 40m² houses built on 75m² plots were able to be located on a narrow awkwardly shaped site previously thought to be undevelopable when attempts using layouts with 160m² and 200m² plots were used. The double storey units only have a footprint of 20m² and most are either semi-detached or row houses thereby maximising private garden space as well as the overall number of units that could be accommodated. Plots do not have space for motor vehicles and many units only have pedestrian access. Residents accepted this as most did not have cars and wanted to remain in the suburb with the good pedestrian access it enjoys in addition to the important benefit of owning their own property.

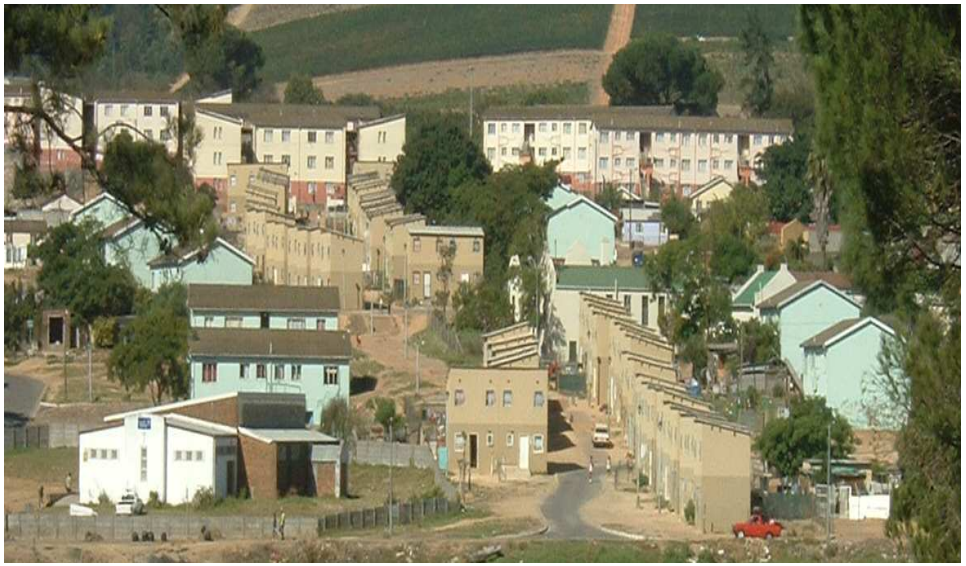


Figure 7.3.5.2 Cloetesville Steps, Stellenbosch

Figure 7.3.5.3 shows the interface proposals for Imizamo Yethu, an informal settlement upgrade in the upmarket suburb of Hout Bay. Wealthy residents abutting the two boundaries of the settlement were very anxious about the type of development that will be abutting their properties. A compromise was achieved whereby the interface would comprise a row of GAP or entry level market related housing across a 10m wide open space on which existing trees would be retained.

Figure 7.3.5.3 Proposed interface between Penzance Estate and Imizamo Yethu, Hout Bay

Marconi Beam is a well-located RDP and low middle income residential scheme abutting a newly developed industrial area to the east and an upmarket suburb across Koeberg Road to the west.

A social interface gradient was developed comprising:

- Commercial development located around the peripherals of the housing areas along Koeberg Road and Freedom Way;
- Middle income housing (Phoenix Park) between the RDP scheme and the upmarket housing;
- RDP housing (Joe Slovo Park) between Phoenix Park and Marconi Beam industrial area; and
- A cluster of community facilities, schools, clinics, malls, transport terminals, shops central to both communities, see Figure 7.3.5.4.

Figure 7.3.5.4 Marconi Beam: RDP and lower-middle income residential development

A similar strategy has been used in development proposals in Struisbaai north abutting Langezandt, see Figure 7.3.5.5.

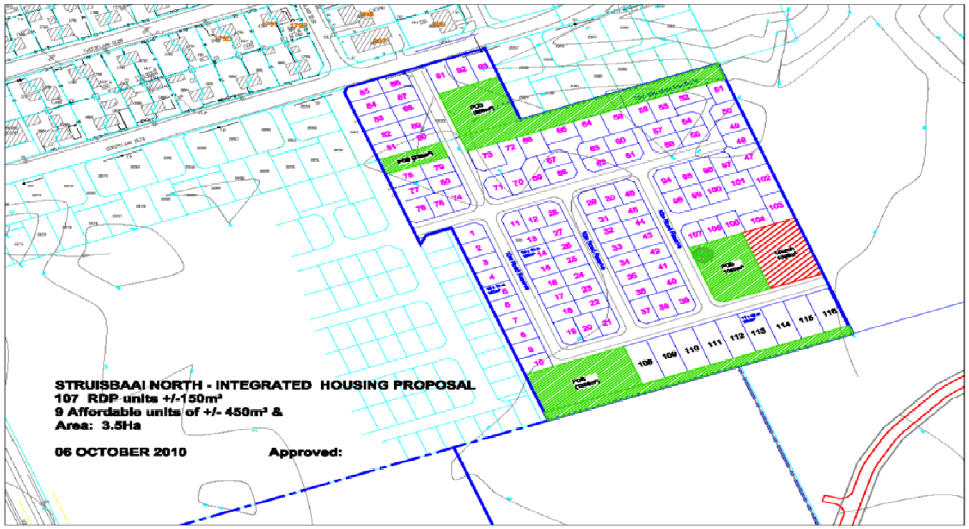


Figure 7.3.5.5 Interface Project in Struisbaai (source: Cape Agulhas Municipality, 2010)

Figure 7.3.5.6 proposes a method for the layering of different housing instruments and their resulting projects so as to promote an interface that is more acceptable to reasonably minded surrounding residents but still allows good access for lower income residents to opportunities to be found nearby, see "Main Road".

As a general rule Human Settlement schemes should not be targetted at a single income group exclusively, usually BNG or S+S, but should always include at least a GAP housing and top structure BNG component even if only comprising 10% or 20% of the units.

Figure 7.3.5.6 Layering of housing subsidy instruments (GAP, BNG, S&S) to create a socio-economic interface

Important principles are:

- The change between different schemes must happen along the midblock and not across the street;
- Residents must be given freehold tenure, i.e. title deeds immediately so that shack upgrading will commence as soon as possible;
- The more formal the units the closer they should be to the main public thoroughfare or adjacent upmarket housing.

7.3.6 Urban Development Projects

Proposal:

The suitability of developing land identified in the following Table should be investigated, see Section 8.

Sub-region	New Devt Area
Bredasdorp	238.5 ha
Napier	52.5 ha
Struisbaai – L'Agulhas – Suiderstrand	169.7 ha
Arniston	36.8 ha
Elim	15.8 ha
Protem	10.4 ha
Klipdale	5.3 ha
Total	**538.4 ha**

Table 7.3.6.1 New Development Areas

7.3.7 Existing Vacant Erven - Struisbaai North – Struisbaai – L'Agulhas - Suiderstrand

Proposal:

The development of the large number of existing vacant erven in these villages should be encouraged, particularly for long term residents, before new greenfield developments especially if they are only for holiday housing, are encouraged.

7.4 TRANSPORT

7.4.1 Non-Motorised Transport

Proposal:

The cross-sections of main roads within intensification corridors in all settlements should provide generous sidewalks for landscaping and tree planting, café furniture, informal trading, street lights and other street furniture as well as dedicated cycle lanes and traffic calming measures.

7.4.2 Passenger Services

Proposal:

Investigate the possibility of re-establishing mixed passenger services on the rail route between Bredasdorp and Cape Town.

7.4.3 Major Route Connections

Proposal:

Tar the following routes in order of priority:

- **1st – Elim to Gansbaai** (in conjunction with Overstrand Municipality)
- **2nd - L'Agulhas Wilderness Route**
- **3rd – Bredasdorp to Malgas**

7.4.4 OTB/AFB Zone

Proposals:

- **Review report on potential of airbase to be converted into an airport including comparison with Upington airport as the nearest facility in scale taking an objective view of existing residential population, agricultural production, existing and potential and current distribution channels and other likely demand variables;**
- **Notwithstanding the exclusion on access to the general public investigate under what conditions. The proposed coastal walking trail could continue through OTB/AFB zone of De Hoop Nature Area;**

- **Notwithstanding the exclusion on access to the general public investigate possibility of western entrance to De Hoop through the OTB/AFB zone from R316 Bredasdorp-Arniston Road.**

7.5 BALANCING AGRICULTURE AND BIODIVERSITY CONSERVATION

Proposals:

7.5.1 Protect Intensive Agriculture

- Existing intensive agriculture should be protected from demands to convert it to urban development, and biodiversity conservation including ecological river corridors beyond that proposed in this SDF;
- Promote agri-tourism according to provincial guidelines for development outside of the Urban Edge.

7.5.2 Enhance Marine Conservation Areas

- Review right of access conditions to marine conservation areas so that small scale fisher's livelihoods can be sustained, for example, by permitting small boat (bakkie) fishers to operate.

7.5.3 Promote Stewardship Programs/ Conservancies

- Encourage the participation of privately owned rural land in stewardship programs and conservancies outside of the formal conservation areas of Cape Nature (De Hoop) and SANParks (L'Agulhas);
- Encourage the implementation of easily identifiable entrance portals so as to enhance access to the park.

7.5.4 Protect Critical Biodiversity Areas

- Those portions of farms with significant areas of renosterveld and unsuitable for agriculture should be converted to stewardship programs / conservancies;
- The rate rebate policy should be reviewed in certain instances with regards to the impact that this might have on municipal finances.

7.5.5 Support The National Park

- Support SANParks proposals to extend and consolidate the national park.

7.5.6 Proclaim Wetland Conservation Areas

- Proclaim wetlands on private and public property outside of formal conservation areas and privately owned conservancies as "core area" conservation areas.

7.5.7 Proclaim Riparian No-Go Set Back Zone and River Management Corridors

- Proclaim river management corridors as "core areas" within 10-30m riparian no-go setback zones measured from the river-wetland banks taking into account flood plains to be delimited by freshwater ecologists.

7.6 REALIGN LOCAL MUNICIPAL BOUNDARY

- Motivate realigning municipal boundary around De Hoop, see Figure 7.4.

7.7 SUPPORT DEVELOPMENT OF WINE FARMS

- Support development of wine farms, their associated agricultural and tourism value add and employment growth while ensuring that sufficient land is retained for food production.

8. SETTLEMENT PROPOSALS

The SDF is required to make proposals for the main settlements in the municipality, however, these should not be detailed sectoral plans but should rather provide broad proposals to promote positive trends and directions. If necessary these should be fleshed out in detailed sectoral plans, development frameworks, precinct plans and site development plans guided by this SDF.

8.1 BREDASDORP

8.1.1 ANALYSIS, see Figure 8.1.1

8.1.1.1 Background

Bredasdorp lies on the slopes of a high hill (Preekstoel) at the toe of the Heuningberg, the most easterly mountain of the Bredasdorp mountain range whose lower slopes are covered in proteas, and the surrounding hills and plains which are planted with a variety of cereal crops and sheep pastures.

Bredasdorp is strategically located on the regional transport routes at the only point through which the tarred roads connecting the coastal towns of Arniston-Waenhuiskrans, Struisbaai-L'Agulhas and Suiderstrand, Elim (tarred road route) and de Hoop Nature reserve pass to connect the sub-region to Caledon and the N2 national route.

This location was chosen by Michiel van Breda, former mayor of Cape Town, in 1845 as the site for a new town. He moved to the area after he was no longer able to farm Oranjezicht as the Cape Town municipality had expropriated his irrigation water. He farmed nearby on Zoetendals Vallei and is considered the founder of the merino sheep industry in South Africa.

Bredasdorp's strategic location has enabled the town to maintain its economic base over time as it has enabled it to capture the benefits of being a district headquarters site for agricultural co-ops, local government offices and the local offices of national government departments in addition to its agricultural service centre role. The development of the nearby missile testing range in the 1980s has enabled the town to benefit from national and international air force activity. These primary and secondary economic activities have been reinforced by the growth of tourism in the area arising from holiday housing developments in the coastal towns, visitors to De Hoop Nature Reserve and L'Agulhas National Park, and more recently agri-tourism as wine farms and a wine route establishes itself in the region.

8.1.1.2 Natural Systems

- ***Topography***

Bredasdorp is situated according to time honoured settlement location principles in that it is placed at the juncture of three different landscape types, the "classical" (Bredasdorpberge/Heuningberg mountains), the "cosmic" (the L'Agulhas plain) and the "romantic" (the fertile rolling hills of the Ruggens/Ruens). Usually only two of the three main landscape types are found together.

These locations are usually possessed of great scenic beauty and often include river crossings and road passes.

The town is prevented from growing up the slopes of the Heuningberg, which would attract high property values, but whose development would significantly detract from the town's strong sense of place, by the Heuningberg Nature Reserve.

- ***Rivers and water***

There is a generous corridor protecting the upper reaches of the Droe River but this is considerably pinched between the townships to the west although it is still continuous.

- ***Vegetation and land cover***

The western boundary of the town abuts the Heuningberg Nature Reserve overlooking the town which includes about 800 hectares of fynbos to which another 400 hectares of private owned and managed land to the south has been added.

The west and northern boundaries of the town abut fertile farmlands. There is also cultivated land to the south west. The least fertile land is found to the east and it is in this direction that the town has generally been expanding with low income housing and industrial areas found here.

Figure 8.1.1 Bredasdorp

8.1.1.3 Socio-economic trends

Bredasdorp had a population of approximately 12 000 (2001) estimated to increase to approximately 15 500 by 2010.

Bredasdorp's share of the total municipal population is forecast to remain constant at 48%. This increases to 58% of the municipality's urban population

65% of the population are economically active, the highest in the municipality. 28% are of school going age and only 7% are over 65, one of the lowest percentages of aged people in the settlements of Cape Agulhas Municipality.

Bredasdorp has the best health facilities in the municipality with a provincial hospital, 4 GPs, 4 dentists, 2 vets, and 1 pharmacy. There is also an undertaker and mortuary. These facilities make Bredasdorp attractive for retirees who require these facilities.

It is the educational centre of the municipality with one high school and 3 primary schools. There are no tertiary education centres.

Bredasdorp has both the highest employment as well as highest unemployment levels. This is in keeping with migration trends where the unemployed migrate to places which have the best **chance** of providing employment even in the face of high unemployment levels.

There has been a considerable increase in the municipal unemployment rate from 1996 (8.9%) to 2001 (14.4%). Many of these unemployed are found or will make their way to Bredasdorp either to stay or as a stepping stone to Cape Town or other metropolitan areas.

The largest contributors to the local economy are community, social and personal services, manufacturing, general government services and construction. Most of the first three categories are located in Bredasdorp including some construction although much of this also occurs in the coastal towns with the building of holiday houses. Both agriculture and manufacturing are showing a decline in economic output.

The Cape L'Agulhas Human Settlements Plan (CAHSP) identifies a housing need of approximately 2 500 units for Bredasdorp, 74% of the total housing need in the municipality.

It should be noted that there is a discrepancy between the housing need identified in the CAHSP, 2 500 units and in the IDP, 1 500 units. This discrepancy needs to be resolved. The CAHSP figure appears high if Bredasdorp has a total number of households between 3000 and 4000.

The plan proposes building 650 units over the period 2007 to 2011 after which it hoped that Bredasdorp will be the only town left in the municipality with a shortfall providing there is no further increase in housing need from in-migration and natural growth.

8.1.1.4 Layout, functionality and built form

- ***Layout***

Like most South African settlements Bredasdorp comprises a previously integrated mixed use, predominantly residential historic core together with a number of single use township extensions accommodating middle and low income housing and industry.

The original town is located on the eastern slopes of the Heuningberg above the Droe Rivier. It has a bastide or Voortrekker 'Rydorp' layout which is aligned perpendicular to the slope of the nearby Heuningberg so that the town's agricultural plots and gardens could be watered from furrows diverting water from the east flowing tributaries of the Droe Rivier into the main river course flowing along the lowest boundary of the original town.

Up until the 1960s the town was socio-economically and functionally integrated. Then, beginning in the 1960s, the coloured population were relocated to the northern side of the river separated by a green corridor. Africans were located even further north to Zwelitsha whose furthest extent is 2 kms from the centre of Bredasdorp. Industrial areas were also located in this land across the river. These townships were also separated from each other by wide road reserves and public open space buffer strips.

- ***Functionality***

The result of this layout is a town that is relatively inconvenient particularly for the poorer residents and expensive to manage for a town with a population of only 14 000 to 15 000 people. Excessive walking distances, especially for the poor, have created demand for a public transport service which represents a significant burden in the context of low, casual, or no incomes. There is little promotion of cycling as a means of transport.

The town's residential gross density is approximately 7 dwelling units hectare. This is an extremely low density for an urban settlement and indicates that it will be expensive to service and inconvenient to move around except by private motor vehicle. Elim by comparison, a village that is pedestrian friendly, has a gross density of 14 dwelling units per hectare.

Water and sewer pipe lines also have to be excessively long per house/apartment connection to service such a layout.

- ***Built form***

The old part of Bredasdorp is attractive with a number of heritage buildings along its main street and elsewhere although there are some unfortunate renovations that are out of keeping. This sense of place is important in attracting tourists to the town so as to support the wide variety of hospitality, entertainment and retail businesses.

The urban quality considerably diminishes towards the east and north along the road to De Hoop with a monotonous industrial and 1960s suburban townscape of uncoordinated building types, landscaping and tree planting where it does exist, and different road and sidewalk finishes. This considerably undermines the quality of Bredasdorp's sense of arrival from the north (R319). This is unfortunate because this road is a major tourist route from De Hoop and the Breede River valley notwithstanding its gravel finish.

8.1.1.5 Urban Development Trends

There are three main areas of urban development pressure in Bredasdorp:

- Upmarket – on the higher slopes of the town along the urban edge.
- Medium income – on vacant land in the south central part of the town – gated security village;
- Low income – on the periphery to the north behind Zwelitsha and to the east abutting a green belt along the Droe Rivier.

Densities should rather be used as a tool to help restructure the town and reinforce strategic routes so that development would be high or low densities depending on its location and the market level would be determined by the design and specifications. So upmarket development in a strategic location may take the form of expensive town houses or apartments. High densities, usually over 200 dwelling units per hectare – 3 to 4 storey apartment buildings, are not seen as appropriate for Bredasdorp. Densities should range between low (4 to 25 dwelling units per hectare – single dwellings through to double storey, semi-detached and terraced freehold housing, and medium, 2 to 3 storey sectional title apartments.

8.1.2 SYNTHESIS, see Figure 8.1.2

- Bredasdorp is set within a spectacular landscape which gives it a strong sense of place, together with the large complex of heritage buildings within the town centre and elsewhere. This will prove increasingly important in the town's economy in the future because of the role it plays in attracting tourists.
- Therefore, great care should be taken with the nature and form of future development of the town's "gateways" along the roads from Napier, Arniston, Struisbaai and De Hoop.
- Attention should be given to sensitive redevelopment of the existing parts of the town by increasing densities towards the town's centre and along its major routes. This redevelopment should take into account heritage buildings in the town centre by integrating them or where necessary not developing properties containing heritage buildings.
- Particular care should be taken around the proposal to develop the exposed hillside on the visual axis with the Napier Road. Ideally this site should not be developed as it clearly has agricultural potential judging by the contour ploughing.
- While out of town golf course estates have generally been found to be problematic with regard to environmental resources consumption, visual impact and transport and services inefficiencies, existing urban golf courses can be considered as important amenities offering recreational, tourism and property development opportunities providing that the facilities remain affordable, particularly to locals including emerging golfers.

  The feasibility of extending Bredasdorp's golf course to 18 holes as an affordable public facility and allowing a sensitively designed golf course estate including a mix of housing types and income groups that is integrated with the town's urban fabric should be investigated.

  The proposed golf estate extending the current course to 18 holes should be supported with the following provisions:
  - course landscaping and watering should follow principles similar to those of Audubon golf courses so as to promote bio-diversity and minimise water consumption;
  - all buildings should be equipped with rain water harvesting, grey water recycling and solar water heating so as to minimise consumption of these resources;
  - densities should be significantly increased so that this project contributes to raising the average gross density of the town. This may mean less large plots and more village like small units similar to those found at Langezandt and Elim;
  - the architectural and urban design style of the proposed buildings should complement be reminiscent of the Overberg and contribute to the town's sense of place;
  - while the need for security is appreciated care must be taken that the nature of the perimeter of the project does not cut if off the remainder of the town and should contribute rather than detract from surrounding streets. High continuous walls around the project should be prohibited;
  - care should be taken to ensure that course fees are set at a level that ensures it is accessible particularly to emerging golfers.

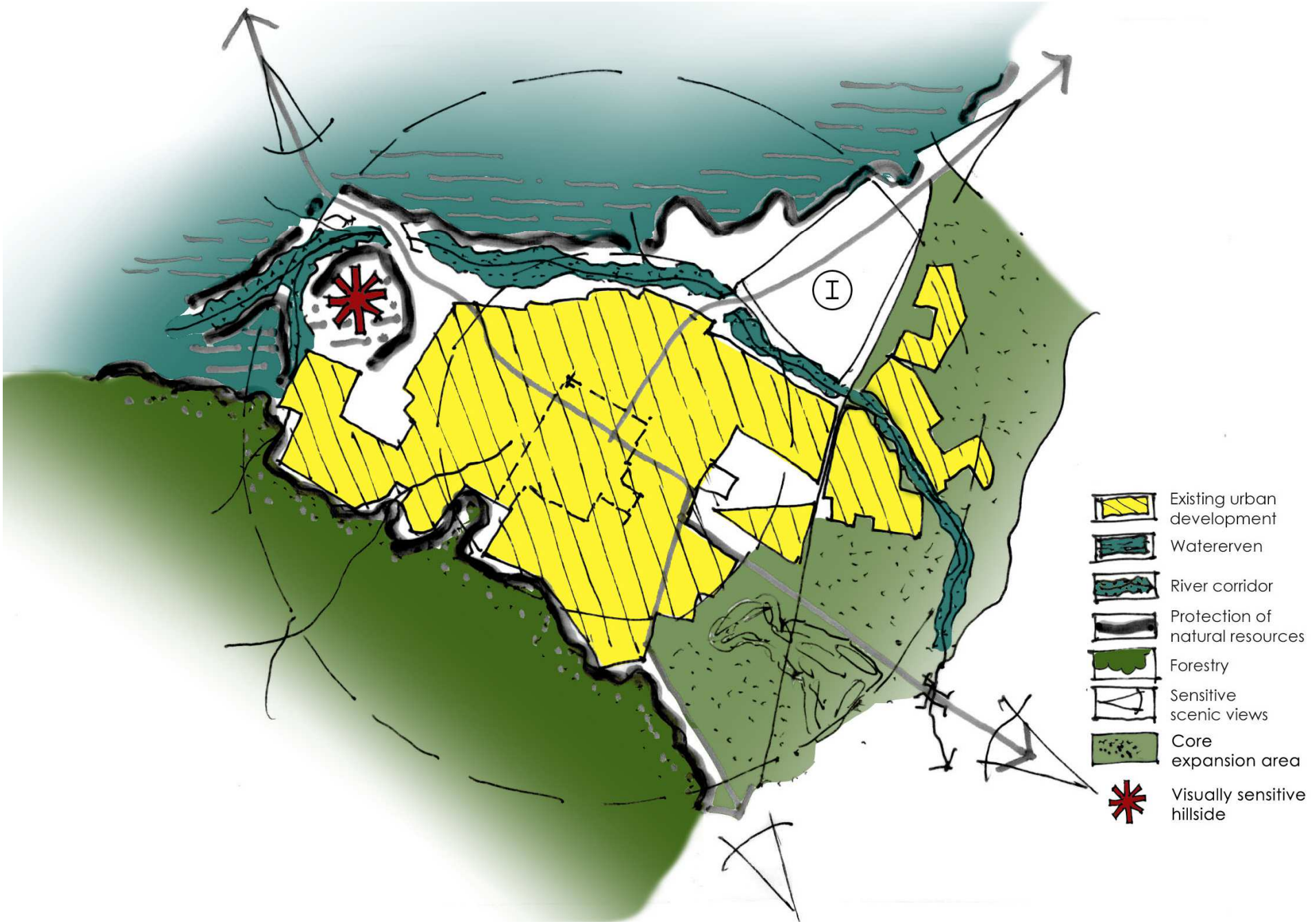


Figure 8.1.2 Bredasdorp : Synthesis

8.1.3 PROPOSALS, see Figure 8.1.3

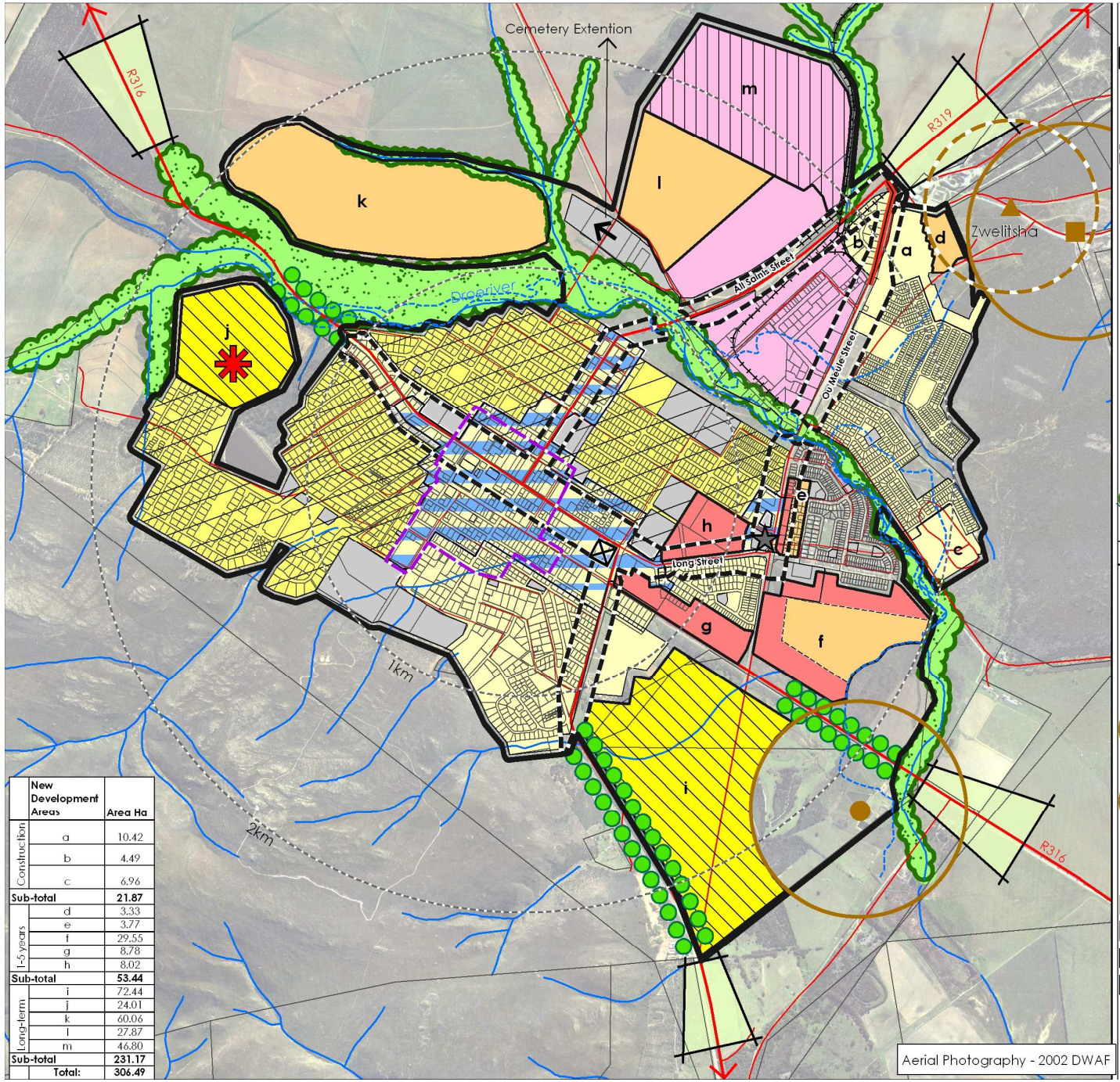
- ***Existing Development***
  - Permit subdivisions and second dwellings in existing urban areas excluding areas below floodlines. Special care to be taken in heritage areas by following heritage guidelines, see Section 9.

- ***Riversides / Ecological Corridors and Biodiversity***
  - Only natural riparian vegetation or suitable landscaping should be permitted within a 10m – 30m wide corridor from the surveyed river bank or waterbody edge. There should be no ploughing or urban development. This corridor should be defined by a fresh water ecologist;
  - No development should be permitted within existing and natural 1:100 year floodline.
  - Any new development in biodiversity sensitive areas should be subject to an impact assessment. Fine-scale planning maps of CapeNature should be consulted in this regard.

- ***Main Streets Intensification***
  - Promote intensification corridors,, see Section 7.3.4 along Ou Meule, Long and Lower All Saints Streets respecting Heritage Area guidelines and constraints, and promoting tree planting, landscaping, pedestrian, cycling and street side activity including formal and informal retail;
  - This intensification should be limited to residential, office and retail uses and only compatible light industrial uses, e.g. non-nuisance manufacturing or craft activities that may require a retail outlet on the same premises;
  - Public transport interchanges should be on the main street system intersection e.g. Lower All Saints/Lang; Ou Meule/Kerk; and/or Ou Meule/R319 or as near as possible to these intersections;
  - Tar top section of Ou Meule Street and promote intensification alongside this street to create a new activity street linking Zwelitsha;
  - The possibility of a bypass is not encouraged at this stage.

- ***New Development Areas***
  - The development of these sites are dealt with in more detail in Section 9.5.
  - Approx. 306,4ha is possible for development subject to investigations inside proposed Urban Edge excluding golf course, see Figure 8.1.3:
    a. Land below landfill sites (housing plan site) – suitable for industrial area extension and housing. Nuisance industrial activity e.g. spray painting, panel beating, industrial woodworking should be confined to new and existing industrial areas The development of this site should be subject to a botanical assessment due to the possible sensitive nature of the biodiversity.
    b. Infill in and around Zwelitsha and along Ou Meule Street helping to integrate this area with rest of settlement.
    c. Infill opportunity inside Urban Edge north of Droërivier (already under construction).
    d. Infill opportunity inside Urban Edge. TRA within buffer zone of proposed landfill site.
    e. Existing site on tender for housing development (housing plan).
    f. GAP housing site (housing plan site) along Lang Street. Units abutting Lang Street should face onto it and not turn their backs.
    g. GAP housing site along Arniston Road.
    h. GAP housing site / retirement housing site (housing plan site).
    i. Promote higher intensity of development in and around golf course keeping out of floodline. Review environmental constraints.
    j. Industrial
    k. Proposed retirement village and retail centre (economic impact study on retail component required).
    l. Long term urban development site. EIA will be required.
    m. Current show grounds. The possibility of a landswop with a portion of area K should be considered as this land enjoys existing access to road system and close proximity to economic opportunities.
    n. Future industrial land.

- ***Urban Edge***
  - Urban edge for next ten years to follow alignment proposed in Figure 8.4;



	New Development Areas	Area Ha
Construction	a	10.42
	b	4.49
	c	6.96
Sub-total		21.87
1-5 years	d	3.33
	e	3.77
	f	29.55
	g	8.78
	h	8.02
Sub-total		53.44
Long-term	i	72.44
	j	24.01
	k	60.06
	l	27.87
	m	46.80
Sub-total		231.17
	Total:	306.49

Bredasdorp - Proposals

- Urban Edge
- Heritage Area
- Section of road to be tarred
- River 100year Floodlines (2006 Urban Dynamics)
- Intensification corridor (see guidelines)
- Promote subdivision and second dwellings
- High income development areas (SDP's to be prepared)
- GAP Housing
- State Subsidised Housing
- Industrial
- Possible site for taxi rank and informal market
- Thusong Centre
- Visually sensitive hillside Development to be sensitive to visual impact
- Landscaped main access route
- River Corridor
- Gateways
- Proposed Landfill site with buffer (400m)

Existing Constraints

- Refuse site with proposed buffer (500m)
- WWTW with proposed buffer (500m)

Existing Development

- Residential
- Industrial
- Community & P.O.S
- Commercial (Mixed Use)

Base Plan

- Cadastral (SG 2009)
- River (1:50 000)
- Railway (1:50 000)

Roads (1:50 000)

- Main Road
- Secondary Road
- Other Access
- Street

Scale at A4 1:25,000

0 100 Meters

CNdV africa

Figure 8.1.3 Bredasdorp : Proposals

- Encourage sensitive development proposals to develop hill on approach road on R316 from Napier due to this location's visual sensitivity.

- ***Heritage Areas***
  - Urban design and landscape guidelines to be prepared to guide refurbishment of existing heritage and non-heritage buildings as well as new buildings within heritage areas and special streets, e.g. Kerk Street.

- ***Future lateral growth direction***
  - New residential development for all income groups should be encouraged (Sites A to H) within the Urban Edge for at least the next 10 years or until the average gross density of the town within the proposed urban edge has achieved 15du/ha.

- ***Special Areas and Proposals***
  - Support golf estate application but encourage more units and greater socio-economic mix;
  - The main axis of major future development of the town should be in a easterly direction. However, future lateral expansion of the town in this direction should not be considered until the average gross density of the existing town has achieved at least 14 or 15 dwelling units per hectare. This implies that there needs to be a number of individual well located developments achieving densities of at least 25 to 50 dwelling units per hectare net, for example, between Zwelitsha and the De Hoop Road;
  - Green corridors through the town should become important positive elements – landscaped and pedestrianised. Development must face onto them and not turn its back. This principle has been implemented on the east side of the Droërivier but not on the west side.
  - Locate BNG housing within 1 km walking distance perimeter.
  - Projects should include a mix with other income groups and land uses.

- ***Gateway Areas***
  - SDPs should be prepared so as to manage development in "gateways" so as to ensure quality first impressions of the town as visitors arrive. See also Section 9 for guidelines.

- **Services**
  - Retain position and buffer zones along Landfill Site (400m) and WWTW (500m).
  - Establish an informal market and taxi rank between Church and Lang Streets along Recreation Street.

8.2 NAPIER

8.2.1 ANALYSIS, see Figure 8.2.1

8.2.1.1 Background

Napier is located at the foot of the Soetanysberg in the Ruggens, a region of fertile rolling hills including wheat, barley, canola and increasingly vineyards on the R317 between Caledon and Bredasdorp. This is also the heart of blue crane country, South Africa's national bird and there is a program in the Overberg to ensure the protection of this species.

Napier was established in 1838 by Pieter Voltelyn van der Byl on his farm as a result of a dispute with Michiel van Breda in nearby Bredasdorp over where the church should be located. Unlike Bredasdorp, which was named after its founder, this village was named after the then Governor of the Cape Province, Sir George Napier.

8.2.1.2 Natural Systems

- ***Topography***

Napier straddles a winding river valley with the bulk of the village situated on the western slopes of the Soetanysberg. The hilly topography of the village creates the backdrop for a strong sense of place strengthened by the dramatic church and some of the other historic buildings.

- ***Rivers and water***

The village has a close relationship with the Elands River which follows an almost complete circle around the Soetanysberg before flowing southwards towards Bredasdorp.

There are a few farm dams in the kloofs surrounding the town.

- ***Vegetation and land cover***

The western slopes above the town are covered in plantation forest, particularly on the Kleinberg which create a strong image for the town.

There is some horticultural cultivation occurring on the water erven in the middle of town. To the east and south the flatter lands of the plateau are covered by crops including wheat, canola, rye.

Agri-dwala, a successful land reform project, is located on the commonage around the village. This project began as a small farmer livestock project and has been extended to include a mixed farming component including wheat on a recently acquired commercial farm.

8.2.1.3 Socio-economic trends

The town had a population of approximately 3 200 in 2001 forecasted to increase to 3 900 by 2010.

It has quite high dependency rates with 28% of children being under 14 and 10% of adults over 65.

Napier has 1 clinic, 1 GP, 1 vet, an old age home and a mortuary.

There are two primary schools (check).

Napier's main economic activities include small scale shopping, tourism and horticulture. It functions mainly as a retirement centre, agricultural residential village for surrounding farmers and labourers and as a primary level agricultural service centre. Most of the higher level agricultural services are provided in Bredasdorp.

Napier's picturesque setting, relatively year round economy compared to the coastal towns and quiet pace of life makes it an attractive inland alternative to retirees and middle class people for those wishing to live a more complete permanent lifestyle than is possible at the seaside which tends to be extremely seasonal.

8.2.1.4 Layout, functionality and built form

- ***Layout***

Napier's layout comprises the long streets of a typical Voortrekker "Rydorp" and long rectangular water erven laid across the Elandsriver

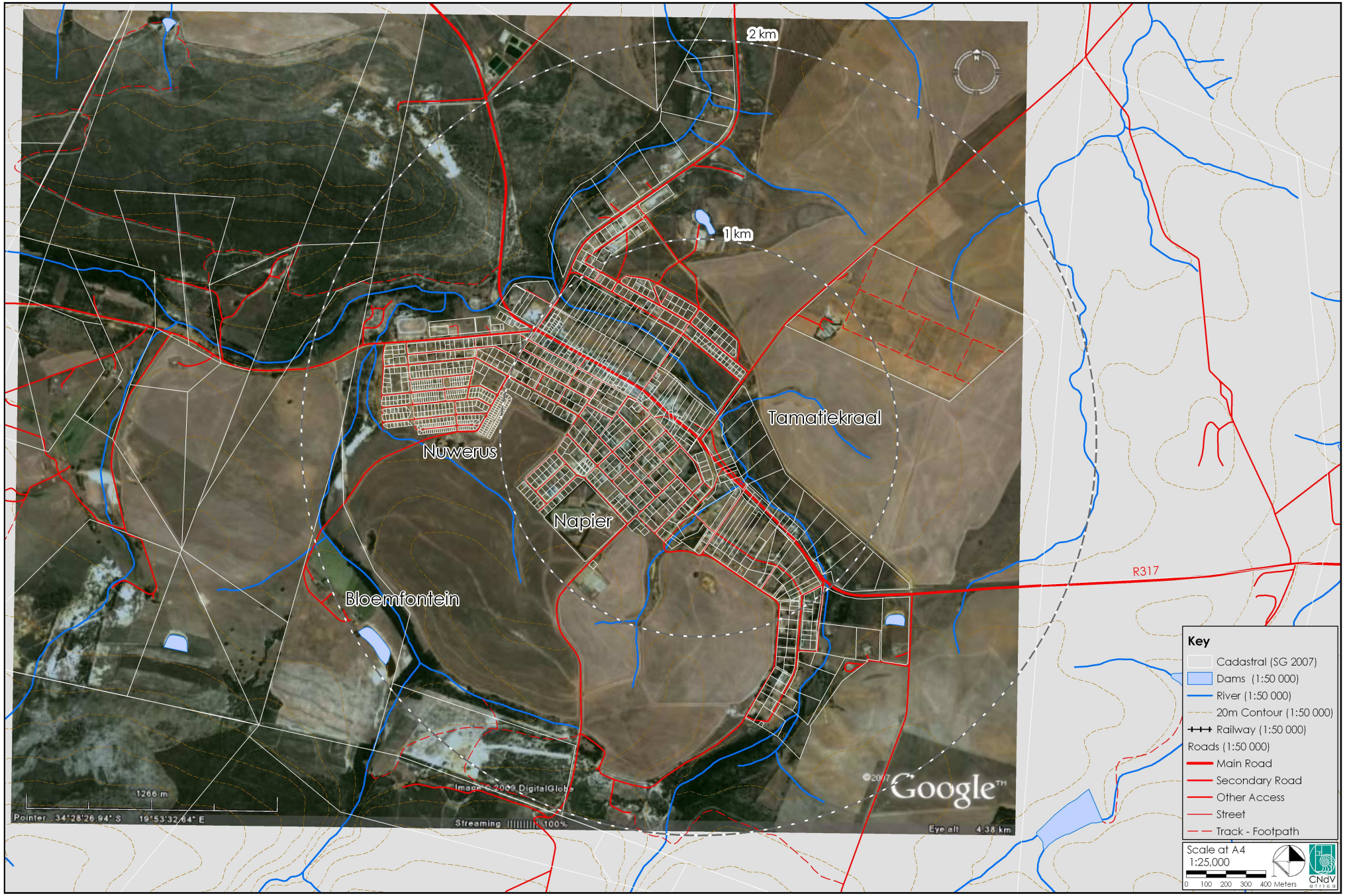


Figure 8.2.1 Napier

valley designed for irrigation and gardening purposes. The alignment of the blocks varies according to the change in alignment of the underlying contours. There is a new township comprising long rectangular blocks, Nuwerus, to the west of the town.

- ***Functionality***

Napier has an extremely low dwelling unit density, due in part to the large water erven in the centre of the village and has a town density of only approximately 3 du/ha.

The bulk of the settlement is within 1 kilometre walking distance of the centre of the town and thus it is easy to get around. Care should be taken with new the location of urban development projects that this pattern is reinforced and not diluted.

The presence of the water erven is positive in that they offer the potential for the village to produce food within close proximity thereby fulfilling an important sustainability criteria. However, who has access to these erven and the extent they are being used for horticultural activity rather than boutique lifestyle purposes are important concerns.

- ***Built form***

Napier's urbanscape, including its picturesque winding main street, possesses a comparatively coherent set of Victorian and Overberg styled buildings. Together they create a strong sense of place which, as well as possessing a number of performance qualities that make it pleasant to live and walk in, (stoeps, verandahs, tree planting and water furrows). These qualities make the village attractive to retirees, 2nd home owners and tourists. This creates enhanced economic demand significantly beyond what it would be if these urban and landscape qualities had been destroyed by indiscriminate development over the past decades.

These qualities should be strengthened with further tree planting and attention to design quality when buildings are upgraded in the main street.

Care must be taken that new development complements and doesn't detract from the village's existing urban quality. Building plans, particularly along the main street, should be carefully scrutinised in terms of section 7 (b) of the National Building Regulations to ensure this. Complying with this clause will be to assist by producing urban design, landscaping and architectural guidelines.

8.2.1.5 Urban Development Trends

Currently little pressure is being experienced in Napier for urban development beyond low income housing and the rennovations and upgrade of existing buildings.

As with the other settlements in the municipality the relatively low density of the village suggests that all the alignments of the Urban Edge should not be amended until the village has achieved a gross density of at least 15 dwelling units per hectare. This density target may be lower in Napier's case because of the distorting influence of the water erven through the middle of the settlement.

8.2.2 SYNTHESIS, see Figure 8.2.2

Napier is an excellent example of how a settlement should be laid out so that it is sensitive to the landscape and topography in which it is located and which layout is designed so that it maximises the opportunities offered by the natural resources found in its setting and immediate hinterland.

In this case Napier has water erven, long thin plots that straddle a river valley, that form the village core. This pattern would have enabled the water erven to be gravity irrigated from the upper reaches of the rivers running through the village.

Urban development was kept out of the fertile, irrigable flood plain and instead lined the hill sides immediately above the water erven. This strip of urban development on either side of the water erven was in turn discouraged from encroaching too high on the hillsides surrounding Napier as these are also arable being used for crops or stock pastures. The majority of the urban development has occurred on the north facing slopes of the valley.

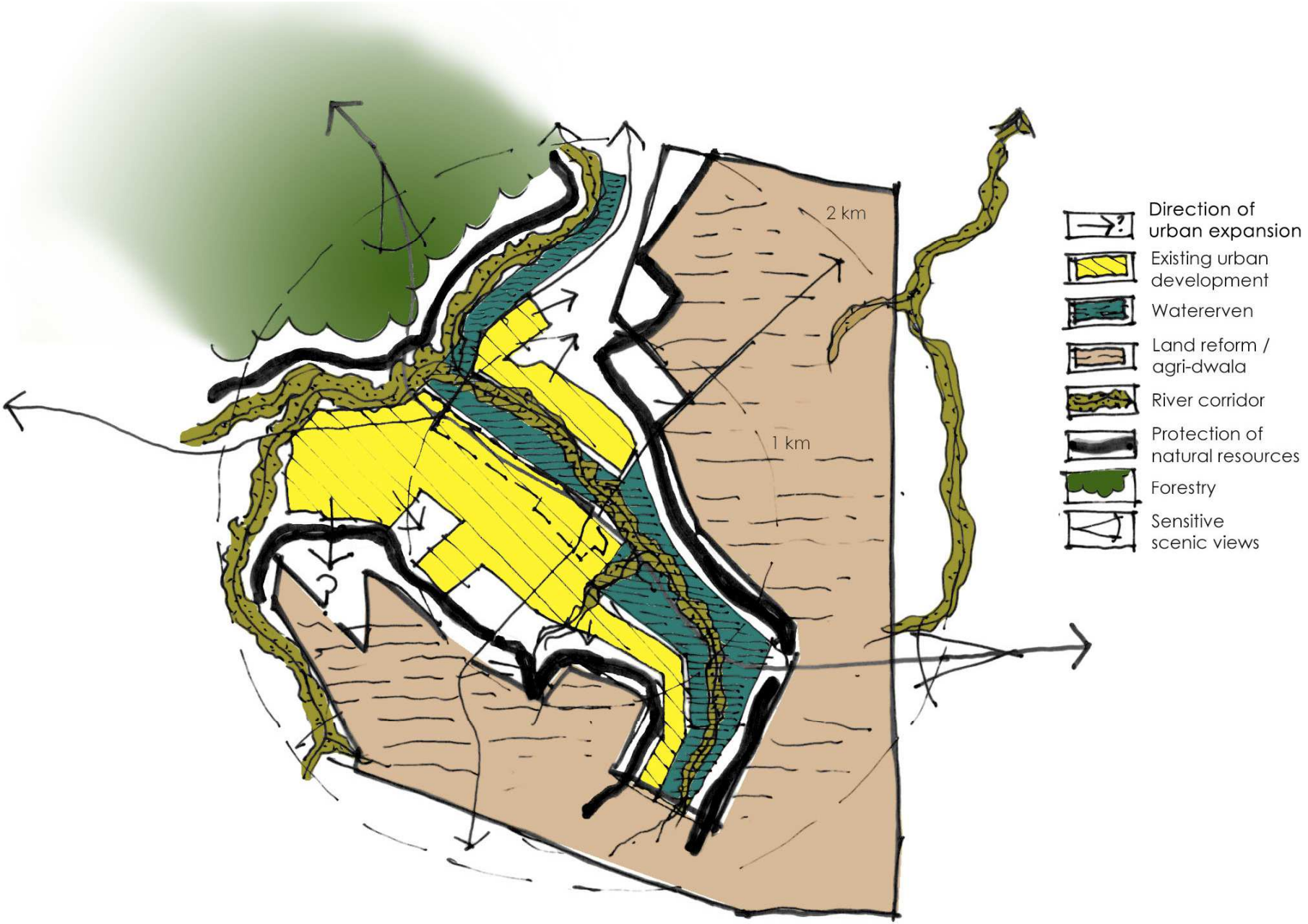


Figure 8.2.2 Napier : Synthesis

Most of this land abutting Napier village is municipal commonage and is being used for livestock grazing in a land reform project which is one of the more successful in the Overberg District. The possibility of using some of this land for horticulture (vegetables) or agriculture (field crops) should be investigated in line with local and international moves to use scarce agricultural land more intensively as well as to increase food security.

- ***Heritage***

Napier has a considerable stock of heritage buildings of which the church is the most prominent. The core set of buildings in the centre of the village are the most coherent, providing the main street with a very strong image. The vistas of the undulating main street, together with the village's scenic setting in the river valley creates a very strong sense of place with considerable appeal to tourists and those wishing to come and live in the village. Great care should be taken not to weaken or damage this resource with new unsightly buildings and road improvements.

- ***Urban growth and expansion***

Currently the main areas of lateral expansion are proposed to extend the town south westwards up the hill side.

This location is visually prominent, and, particularly for the envisaged low income/subsidy housing, will increase travel distances. There may also be problems experienced with water pressure as the elevation of these proposed extensions increases.

In the first instance appropriate intensification of current development, with care being taken not to weaken the heritage resources of the village, should be promoted.

Second, infill land should be identified, see Site A on Figure 8.8.

Thirdly, the possibility of laterally extending the town on the eastern bank of the river, above the water erven should be investigated. This would echo the pattern on the western side of the valley with water erven on the lower ground and urban development above.

- ***Integration***

Socio-economically the village is segregated with most of the lower income groups living in Nuwerus to the west, outside of the 1 kilometre distance circle from the centre of the settlement. However, unlike many other settlements where these extensions were separated from the original core by wide road or river reserves Nuwerus is continuous with the remainder of the town.

Approximately 260 housing units are required in Napier according to the housing plan. In the first instance new extensions of Nuwerus should extend back towards the centre of the village rather than be located further away.

The principle of the socio-economic gradient should be used in laying out such development, see Section 3.4.

- ***The need to travel***

The village is generally compact with almost the entire settlement within a 1 km radius of the centre with the exception of Nuwerus.

8.2.3 PROPOSALS, see Figure 8.2.3

- ***Existing Development***
  - Appropriate intensification of existing development, second dwellings and subdivision should be promoted in the existing development areas of the town according to architectural and urban design guidelines that should govern the entire village.

- ***Future lateral growth direction***
  - Future lateral growth should only be promoted where necessary, i.e. when the existing average gross density of the settlement is approaching 15 dwelling units per hectare. This target may need to be lower in Napier's case if the water erven in the centre of the settlement are to remain largely free of development;
  - Future growth should also promote the integration of the town rather than its further extension as well as staying within the 1 kilometre distance circle from the centre of the settlement where possible so as to reduce the need to travel.

- ***Infill Areas***
  - One infill area is proposed, see site A (± 9.5 ha) (housing plan site). This site is partially developed, see Site A1. The remainder of this site (A2) will be put to tender for medium income housing. The housing design should also be subject to the same urban design and architectural guidelines as proposed for existing development.

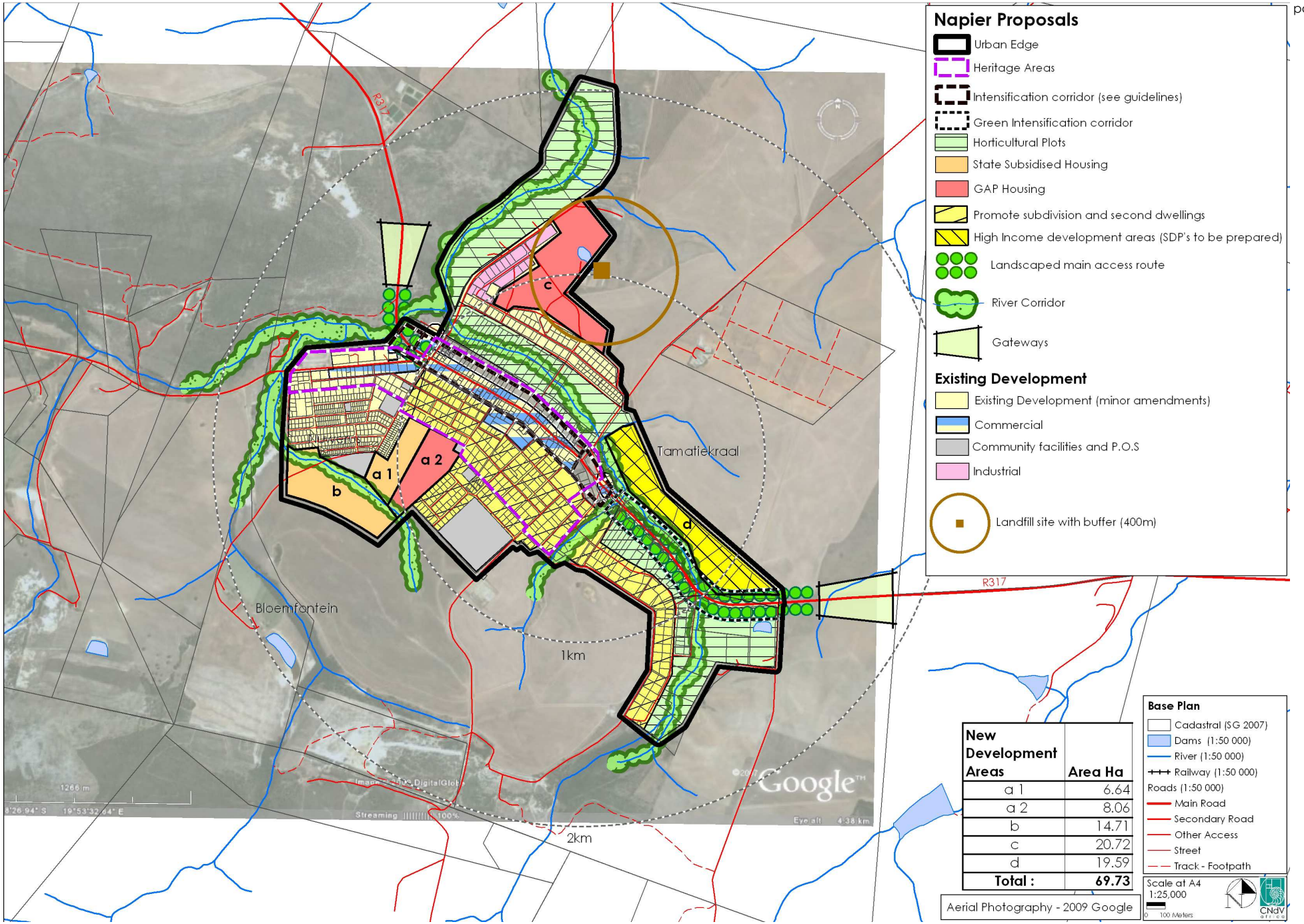


Figure 8.2.3 Napier : Proposals

- ***Proposed New Development Areas***
  The following new development areas have been identified, see Figure 8.2.3:
  - A1 Already developed with 250 BNG units.
  - A2 Potential for interface project, see Section 7.3.5 with BNG housing abutting Site A1 and GAP and possibly lower middle income market housing along eastern boundary.
  - B Potential BNG project – confirm EIA and bulk services, especially water pressure. Care must be taken to observe scenic buffer below ridge line.
  - C Possible GAP housing behind light industrial area.
  - D Potential low density 2nd dwellings on large garden plots (Tamatiekraal smallholdings).

- ***Water erven (horticultural plots)***
  - Development of the watererven along the river should be limited to 1 dwelling unit per plot as well as a second dwelling and ancillary building, so as to minimise destruction of arable land.
  - If there is a need for irrigation infrastructure or other support needed to enhance the productivity of these plots, the municipality should facilitate such measures.

- ***Riversides / Ecological Corridors and Biodiversity***
  - There should be ecological set back zones declared along the river banks in which there should be no ploughing nor urban development;
  - These lines should be determined by an aquatic/freshwater ecologist and are likely to be between 10 m and 30 m from the surveyed banks of the river depending on the conditions.
  - Any new development in biodiversity sensitive areas should be subject to an impact assessment. Fine-scale planning maps of CapeNature should be consulted in this regard.

- ***Main street Intensification***
  - Promote intensification of development along the Main Street (Hoofstraat);
  - The main street and its surrounds should feature as a special area in the proposed architectural, urban design and landscaping guidelines. Where this area coincides with the heritage area, see below, heritage guidelines also need to be taken into account.

- ***Landscaped Main Access Route***
  - The tree planting and avenues at the north and east entrances to the town should be maintained and consolidated.

- ***Gateway Areas***
  - The visual impact of existing and proposed development at the approaches of the R317 north and east entrances into the town should be carefully managed by preparing site development plans to guide the development of the sites, not to weaken the current positive sense of arrival, see Section 9.

- ***Urban Edge***
  - The Urban Edge is proposed as shown in Figure 8.2.3. It is recommended that it is regarded as a hard line for the duration of this SDF, i.e. 10 years as it provides for more than enough land in terms of the village's current requirements and seeks to preserve the scenic and agricultural land surrounding it.

- ***Heritage, Architectural, Urban Design and Landscape Guidelines***
  - Guidelines should be drawn up by heritage, and urban design and architectural guidelines specialists to guide all new buildings and renovations. They should be short, simple and concise and easy to use by lay people including owner builders without architectural, design or building training and experience.

- ***Economic opportunity areas***
  - Opportunities, especially for emerging business people should be promoted. Napier's main street offers the best possibilities in this regard and a site should be identified for a market that could offer local produce and crafts;
  - Access to water erven for horticultural purposes should also be investigated for emerging gardeners.

- ***Transport***
  - Should the village manage to retain its compact form, i.e., the majority of development within 1 kilometre walking distance of the centre then the need for public transport services will be kept to a minimum.

8.3 STRUISBAAI - L'AGULHAS - SUIDERSTRAND

8.3.1 ANALYSIS, see Figures 8.3.1.1, 8.3.1.2 and 8.3.1.3

8.3.1.1 Background

Struisbaai is the site of a much older settlement, possibly 100 to 200 years ago, of which only a few restored historic cottages at Hotagterklip remain. This historic community's livelihood was based on fishing which operated out of the small natural harbour in Struisbaai.

The historic St Mary's Anglican Church dates from this era, similar to other historic fishing communities on the Cape coast which were also Anglican congregations.

Hotagterklip, a declared monument, has its name due to the stone outcrop that imposed a sharp detour in the ox wagon route. Hotagterklip appears to have suffered forced removals in the 1970s and early 1980s and the majority of the community now live at Struisbaai North (Molshoop), some 5 kilometres from the harbour. Formerly the community was probably similar to that at Kassiesbaai near Arniston.

Struisbaai is a relatively recent settlement which has developed since 1950 when it appeared to consist of not much more than a boarding house and a small shop. It is essentially a seaside holiday housing town.

The development history of the town is part of the same pattern seen in many Western Cape coastal towns where small permanent communities whose livelihoods were generally based on the sea are mostly replaced by large sprawling seasonal holiday suburbs which function at over-capacity for a few months around year-end and then are relatively quite for the remainder.

An added feature of this transition is that properties in the historic settlements operated under an informal right of occupation rather than freehold ownership. The removals and modernisation introduced freehold ownership which hastened the demise of these communities as residents liquidated their properties and moved off to the cities in order to find more sustainable livelihoods.

In the 1960s two further holiday townships were developed along this stretch of coastline. Firstly, L'Agulhas, a large sprawling extension of largely 1960s and 1970s style architecture and reaching almost to the southern tip of the African continent marked by the lighthouse. L'Agulhas still has many vacant erven. Secondly, further west an isolated leap frog, partially developed township extension, Suiderstrand.

Both of these settlements comprise largely holiday housing. Struisbaai has few supporting activities in the hospitality, service industry, construction and maintenance and municipal services.

8.3.1.2 Natural Systems

- ***Topography***

Struisbaai - L'Agulhas – Suiderstrand are located on a dramatic coastline of rocky headlands and sandy beaches culminating in Cape L'Agulhas, the southern tip of Africa.

Struisbaai is at the southern end of what is reputed to be one of the longest beaches in the southern hemisphere that stretches to Struispunt in Du Mond Nature Reserve near Arniston.

L'Agulhas and Suiderstrand are located on a rocky coastline with small beaches in between. They back onto significant rocky hills unlike Struisbaai whose hinterland is largely flat.

All the settlements are located on the dune behind the coastline. In many cases there is development encroaching onto the primary dunes.

- ***Rivers and water***

There are no rivers near these settlements located as they are on rocky headlands and dune fields. The original fishing settlements would have had limited water demand capable of being served by wells boreholes, and rainwater harvesting.

This lack of water resources is responsible for the chronic water shortages experienced by these settlements during the holiday season peaks.

Figure 8.3.1.1 Struisbaai

- ***Vegetation and land cover***

The vegetation pattern is linked to the underlying soils and their depths. Much of the coastline consists of exposed dunes with no vegetation and no run-off. Elsewhere the dune soil is more organic with grey sand and is covered with woody dune grasses and small shrubs which generate significant run-off and create a series of incised valleys in the dunes. Behind the dunes there is broad leaved coastal dune thicket comprising woody shrub land.

The settlements are largely devoid of landscaping and tree planting due to the harsh climate which is not conducive to tree species.

8.3.1.3 Socio-economic trends

Struisbaai - L'Agulhas – Suiderstrand had a combined population of approximately 3 000 people in 2001. This reflects the permanent population as Census is taken in October, a time designed to count people in their permanent place of residence.

A count of the developed properties in these settlements suggest that the population during the peak holiday season could swell to 15 000 Including campers and caravaners.

It is anticipated that the permanent population could increase by another 800 to 1000 people by 2010. However, this figure is projected from the 2001 baseline figure and does not take into account "wild cards" such as holiday housing developments that are not catering for organic growth of an existing population but more for external demand from the major cities.

There are 300 housing units on the waiting list mainly for the Struisbaai North (Molshoop) community.

Struisbaai and particularly L'Agulhas have a relatively aged community, 12% (3rd highest in municipality) and 31% respectively. L'Agulhas' aged community is probably a good indicator of a settlement which comprises almost exclusively retirees.

The historic long term economic activity of these settlements was fishing. Struisbaai fishers mainly catch line fish, geelbek, barbell, kabeljou and yellow tail. Red stumpnose and red roman appear to be declining.

The permit system, first introduced in the 1970s, seems to have heralded the decline in fishing as a sustainable livelihood according to respondents in surveys (Cardoso P, Fielding P, Soman M, Socio-economic baseline survey of coastal communities in the BCLME Region – South Africa, Environmental Evaluation Unit, UCT Aug 2006)

This decline has accelerated since 1994 when tougher quota conditions were introduced and reduced numbers of small fishers. The extent to which these new quota conditions contributed to sustaining fishing resources or merely increased the opportunities for large scale commercial fishing interests is not clear. In any event catches have been declining. This suggests that the removal of significant numbers of small scale fishers from the industry has not really helped preserve fishing resources and has caused considerable hardship.

Larger boats are able to launch from Struisbaai and as a consequence many of the Arniston fishermen fish from here as it is more difficult to get permits and quotas for their small "bakkies" (boats less than 10 metres).

8.3.1.4 Layout, functionality and built form

- ***Layout***

At a macro level the settlements are laid like a string of beads from Struisbaai North (Molshoop) in the north through to Suiderstrand to the west over a distance of 13kms. The Langezandt approved development will contribute to establishing integration between Struisbaai North and Struisbaai, but may take years to achieve that goal.

The layout of these towns are based on the typical large plot, car orientated, curvilinear blue book design principles found throughout South Africa since the 1960s and based on the same suburban model found in large towns and cities. They are feasible for cycling as the main road is flat but this mode of transport is not promoted.

Struisbaai is built around a large vacant open space which could offer opportunities for socio-economic integration in the future to accommodate low and middle income housing.

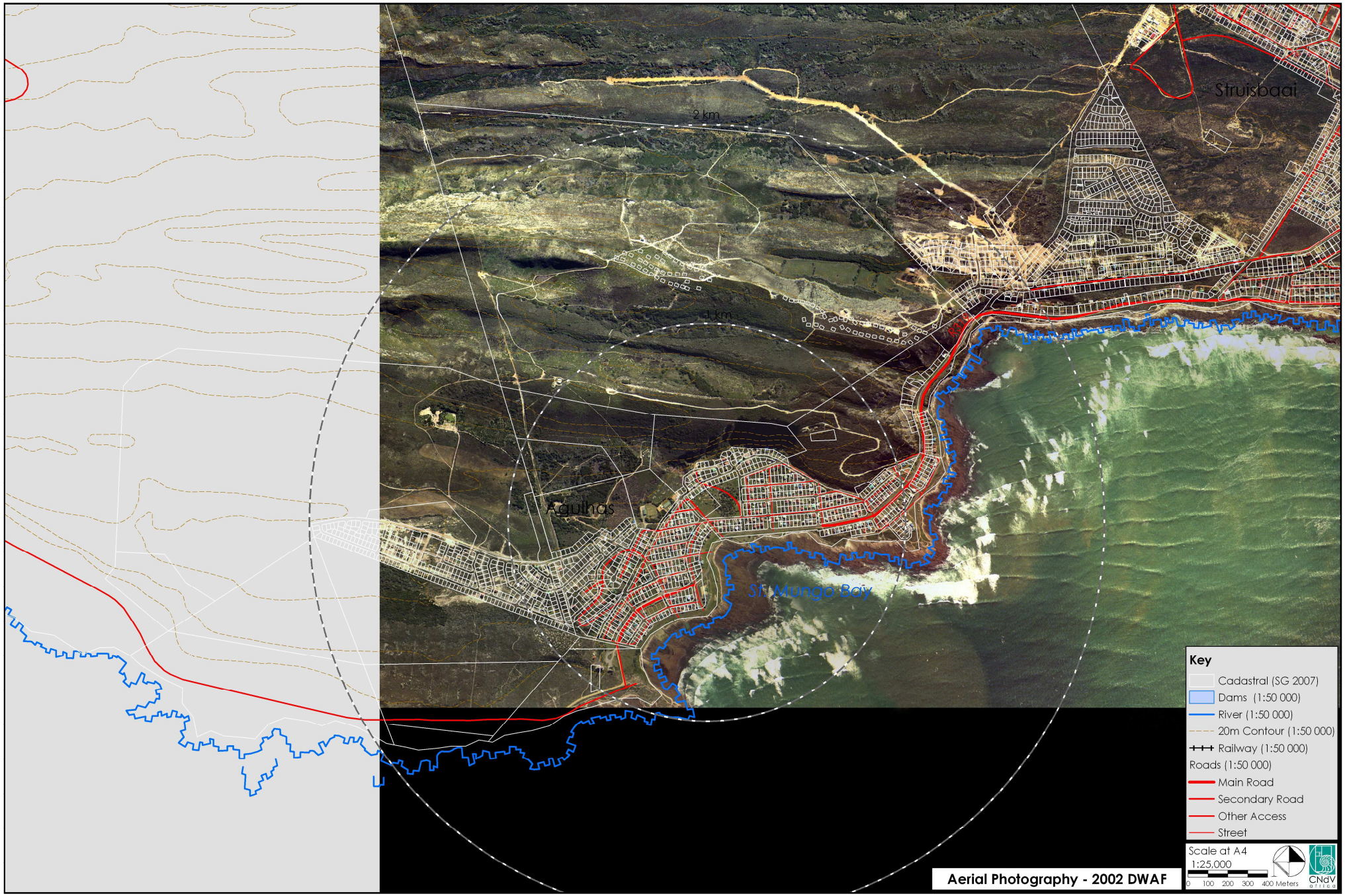


Figure 8.3.1.2 L'Agulhas

- ***Functionality***

The layouts are principally designed to accommodate the motor car and to try and prevent traffic congestion. Consequently these towns are not convenient to walk around.

These holiday settlements' largest issue is that they have very limited water supplies. They have been developed mainly for their scenic value rather than available resources for permanent settlement. As a consequence they experience chronic water shortages during peak holiday seasons. It is surprising that, given this water scarce context, rainwater harvesting and storage was not made compulsory many years ago as it is in Kenton on Sea where building plans are not passed unless a 30 000 litre underground tank connected to the gutters is included.

As a result of their low density, car orientated layouts these settlements are expensive to service and not very conducive to promoting business activity. There are relatively few corner shops and where these do exist they are mainly concentrated in the central business district of Struisbaai which consequently can experience traffic congestion during peak periods mainly because non-motorised transport is little catered for nor promoted.

Struisbaai North (Molshoop) is located some 5 kilometers from the centre of Struisbaai. Residents here are even further from L'Agulhas and Suiderstrand. They either have to endure long walking distances into town or required public transport services.

As a consequence of the 13 kms between Struisbaai North (Molshoop) and Suiderstrand this layout has generated an excessive need for motor car travel in a permanent community of only 3000 people.

- ***Built form and sense of place***

The positive precedent that could have been followed based on the vernacular architecture found at Hotagterklip and other historic buildings in the vicinity of these settlements has largely been ignored except for the Langezandt project. Most holiday housing in these settlements comprise an unremarkable ad-hoc collection of South African suburban building styles found in the major cities and towns in which most owners live.

Notwithstanding architectural debate on the desirability of closely copying traditional architecture or expressing this heritage in a contemporary form, and other issues relating to land use mix, socio-economic integration and gated communities, Langezandt village relates on balance much better to the sense of place of the Overberg coast than does the suburban ad-hoc built form of most of the buildings in Struisbaai – L'Agulhas - Suiderstrand. It is notable that this deference to the built heritage of the area has had considerable commercial value and is central to the marketing of this project. It is praiseworthy that the developers have managed to avoid the temptation of landscaping with boulevards of palm trees.

8.3.1.5 Urban Development Trends

Four main urban development trends can be discerned:

- Redevelopment and upgrading of existing dwellings and development of existing vacant plots – this should be seen as an opportunity to implement new building guidelines relating in particular to environmental sustainability, especially with regard to rainwater harvesting and storage, solar hot water heating and building appearance;
- Leapfrog development outside of the current Urban Edges of the settlements. This includes the proposed L'Agulhas private golf course eco-estate and initiatives to develop the agricultural small holdings west of Struisbaai North (Molshoop). These initiatives should not be considered until guidelines are in place to ensure that their development will not worsen the problems already faced by Struisbaai-L'Agulhas-Suiderstrand, that the existing infrastructure of the town has been more fully utilised, and that the densities of the town have significantly increased beyond their current levels of 2 – 3 dwelling units per hectare;
- Infill development, of which the only real example is Langezandt. At the macro level, this project appears to link Struisbaai North (Molshoop) more closely with Struisbaai itself. However, this is not apparent currently as most of the development is towards the beach and there is only a long wall with a security entrance between Struisbaai North (Molshoop) and the beginning of the main town. This linkage could improve in the future with the development of Langezandt business village providing there are meaningful linkages with Struisbaai North (Molshoop) and not merely a security wall.

Figure 8.3.1.3 Suiderstrand

- There are other areas of Struisbaai, particular the large piece of open space behind the CBD off Adele Street, which could serve as a major opportunity for infill and socio-economic integration without putting pressure on the town's urban edges.
- Low income housing – there is a need for another 300 units. Currently it is proposed that Struisbaai North (Molshoop) expand seawards although still far from the coast. This will do little for promoting socio-economic integration. It is doubtful that an argument for achieving an economic critical mass can be made, other than to make use of existing bulk service capacity that may be available, to justify further development at Struisbaai North (Molshoop). The proposed low income housing should be located elsewhere as an opportunity to promote socio-economic integration, for example, on part of the large open space off Adele Street integrated with social and GAP housing. Struisbaai North's (Molshoop) integration can be achieved by appropriate strip development towards Struisbaai which will be promoted in part by the proposed Langezandt business village, whose interface with the main road should be suitably designed so that it presents a positive edge and does not turn its back on this route.
- Requests were made by land owners of the large agricultural plots opposite Struisbaai North (Molshoop) for consideration of these properties for urban development opportunities as well as for an alternative access road through the L'Agulhas National Park to Cape L'Agulhas that would enable tourists avoiding passing through Struisbaai and L'Agulhas. While this road access makes sense as a wilderness access route to Cape L'Agulhas and L'Agulhas National Park, using it as a reason to open up the smallholdings for development would undermine its wilderness quality.
- Similar requests were also made by the owners of land west of Hotagterklip also to use this road as an access to Cape L'Agulhas. While Hotagterklip is an important visual landmark on the way into Struisbaai. Visitors to this point would have already passed Struisbaai North (Molshoop), the smallholdings and Langezandt, thereby losing the wilderness quality of the road north of Struisbaai North (Molshoop).

Photo 7.3.1.1 Visual impact of first houses in eco-estate

8.3.2 SYNTHESIS, see Figures 8.3.2.1, 8.3.2.2 and 8.3.2.3

Struisbaai North (Molshoop)-Struisbaai-L'Agulhas-Suiderstrand as an interrelated system

- Struisbaai North (Molshoop)-Struisbaai-L'Agulhas-Suiderstrand form a single urban system along the main road, see Figure 8.3.2.1. There is a 1km gap between Struisbaai North (Molshoop) and Struisbaai although the Langezandt project fills in this gap to some extent. There is only a small gap between L'Agulhas and Struisbaai and, if the L'Agulhas golf course is completed, there will only be 1.5kms between the western limit of this development and Suiderstrand.
- Although, as mentioned previously, it is socially, economically and physically separated from Struisbaai, Struisbaai North (Molshoop) should be considered an integral component of Struisbaai and planning proposals made accordingly. Although far removed, particularly from L'Agulhas and Suiderstrand Struisbaai North (Molshoop) provides the only affordable housing in the area.
- Due to the length of the entire system thought must be given to promoting public and non-motorised transport, particularly cycling, for both commuting and recreational purposes. Recreational cycling would be considerably enhanced by the proposed circular route including the Cape L'Agulhas Wilderness link from north of Struisbaai North (Molshoop) to Suiderstrand.
- The urbanisation of the coastline around Cape L'Agulhas is not considered ideal from a tourism perspective because, intuitively, tourists would expect a remote, wilderness experience around the southern most point of the African continent. The completion of the golf course estate, while a magnificent site for individual owners and residents, will detract from the publics experience, as does the western extension of L'Agulhas.
- The proposal for a road following the northern boundary of the small holdings intersecting with the main road at Struisbaai North (Molshoop) and linking with the road over the dune above Suiderstrand will create a circular road around the National Park should add considerably to the visitor and residents experience of Cape L'Agulhas and help to restore some of the wilderness experience. The feasibility of constructing such a road, which should be designed as a 3-dimensional scenic route and not a straight 2 dimensional point to point route, should be investigated.
- The boundary relationship between the urban expansion of these settlements and the potential to consolidate the L'Agulhas National Park on the Cape L'Agulhas peninsula needs to be resolved. Currently, the three settlements' economy is extremely seasonal and dependent on visits by the holiday homes residents and tourists. This area's best chance of developing a 24/7, 365 days a year economy lies with attracting retirees, tourism and seeking ways to extend the season and use up current capacity rather than continuing to expand the 2nd home market which provides little full time employment. This suggests that catering for retirees and the expansion of the tourism product will cater better for the long term economic future of Struisbaai-L'Agulhas-Suiderstrand than will the expansion of holiday housing. This will also minimise the problems of infrastructure having to have sufficient capacity to cater for a very high holiday peak but being largely redundant for the remainder of the year.
- Having emphasised the importance of the tourism economy all necessary efforts should continue to be made to reinstate and enhance the potential of the fishing industry and the municipality should give the fishing community and its support groups all necessary and appropriate support.
- The spine of the Struisbaai North (Molshoop)-Struisbaai-L'Agulhas-Suiderstrand system is the main road. This road should be made cycle friendly, properly landscaped and architectural and urban design guidelines applied to all of the abutting buildings and open spaces from Struisbaai North (Molshoop) to Suiderstrand.
- Densification should be encouraged along this route, particularly where there are good sea views. This can take the form of subdivisions and second dwellings. However, where this might impact on the views of properties to the rear single storey height limitations may be necessary.
- With the exception of Langezandt little attention has been paid to architectural and urban design issues on the development of Struisbaai North (Molshoop), Struisbaai, L'Agulhas and Suiderstrand. Experience in settlements where this has been taken seriously , such as St Francis Bay, has shown a considerable increase in property values relative to other settlements as well as a more attractive experience for tourists. These settlements can be considered to have lost out as a result of this omission. It is recommended that all future development, including house alterations, be seen as an opportunity to remedy this situation.

Figure 8.3.2.1 Struisbaai : Synthesis

- All of these settlements also suffer severe water shortages in peak holiday season yet there is little evidence of rain water harvesting, grey water recycling, nor solar water heating. These measures should be compulsory on all new developments and opportunities investigated to retrofit them on existing.

Struisbaai North (Molshoop) and Struisbaai

- There appears to be pressure to expand Struisbaai northwards and westwards from Struisbaai North (Molshoop). These directions contradict the need to integrate Struisbaai North (Molshoop) southwards towards Struisbaai.
- However, in terms of Struisbaai-L'Agulhas-Suiderstrand consolidating themselves as a full time tourism economy there will be need for small scale manufacturing and support services. An industrial area should be considered along the western boundary of the Main Road between Struisbaai North (Molshoop) and Struisbaai opposite Langezandt. Care must be taken with the landscaping and street frontage of this estate so as to enhance the entrance experience into Struisbaai and not detract from it.
- There are 3 areas with infill potential within Struisbaai:
  - The undeveloped portion of Langezandt abutting Struisbaai North (Molshoop) (± 36ha) although this is currently approved for a retirement village, prayer park and other uses, and an EIA is underway it has potential for lower middle income housing as well. This potential needs to be further explored. The nature of the interface of the project along the main road is critical and this should be as positive as possible. If necessary, section 3 of the National Building Regulations should be invoked when approving building plans to ensure that an acceptable interface is created;
  - The large area of vacant land within Struisbaai (± 67ha) abutting Adele Street. The dimensions of this land are such that it could accommodate a Langebaan style subsidy housing project as well as GAP and middle income housing, particularly for local residents in the government and private service industries;
  - It is suggested that the 300 subsidy unit housing project proposed for this area is located on this open land in Struisbaai and that it forms a component of the development of this entire block, similar to how this has successfully occurred in Langebaan. This project should be laid out according to the principle of the socio-economic gradient, see section 3.4, so as to take into account issues around the interface of residential areas between different communities.

L'Agulhas

- L'Agulhas comprises a typical southern cape coast suburban holiday village with few of the facilities that an independent settlement would have, other than convenience retail outlets, as it is dependent on Struisbaai for most of these functions.
- A large number of plots remain undeveloped and their development should be encouraged. A higher municipal rate for undeveloped properties has shown to be the most successful approach.
- In contrast further development on the "private nature estate" north of L'Agulhas should be discouraged, if feasible, and this property encouraged to become part of the L'Agulhas National Park, probably on a contractual basis due to the number of dwellings already there;
- Similarly the L'Agulhas Golf Course, if it is not going to be fully developed, should also be encouraged to become part of the L'Agulhas National Park, probably also on a contractual basis.

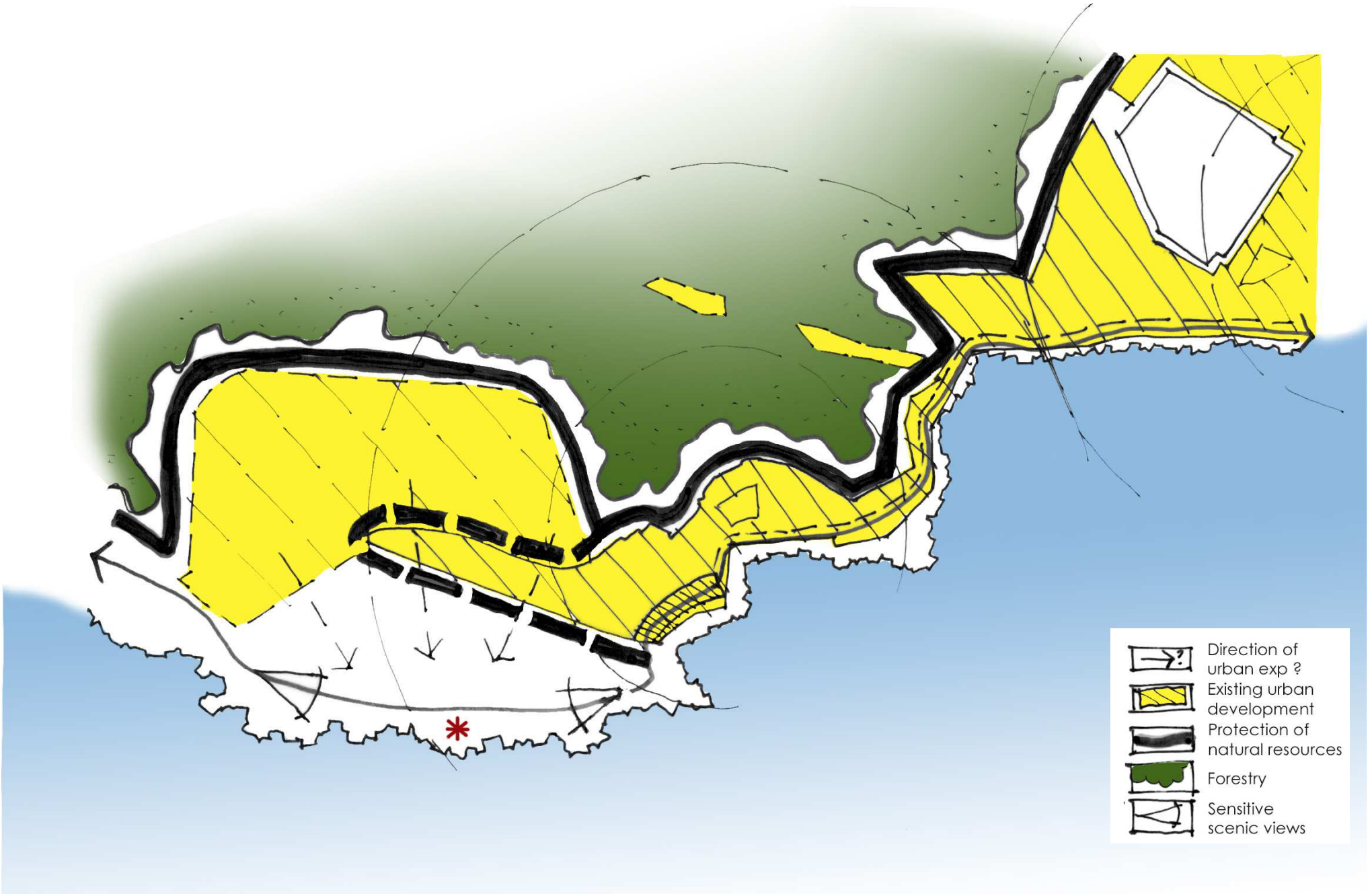


Figure 8.3.2.2 L'Agulhas : Synthesis

Suiderstrand

- A large number of plots also remain undeveloped and their development should be encouraged. A higher municipal rate for undeveloped properties has shown to be the most successful approach.
- Suiderstrand is currently at the end of the main road from Struisbaai and as a result is little exposed to passing trade. If the proposed ring road were constructed then the village would be more exposed to passing trade and opportunities for service industries serving the tourist trade could become viable.

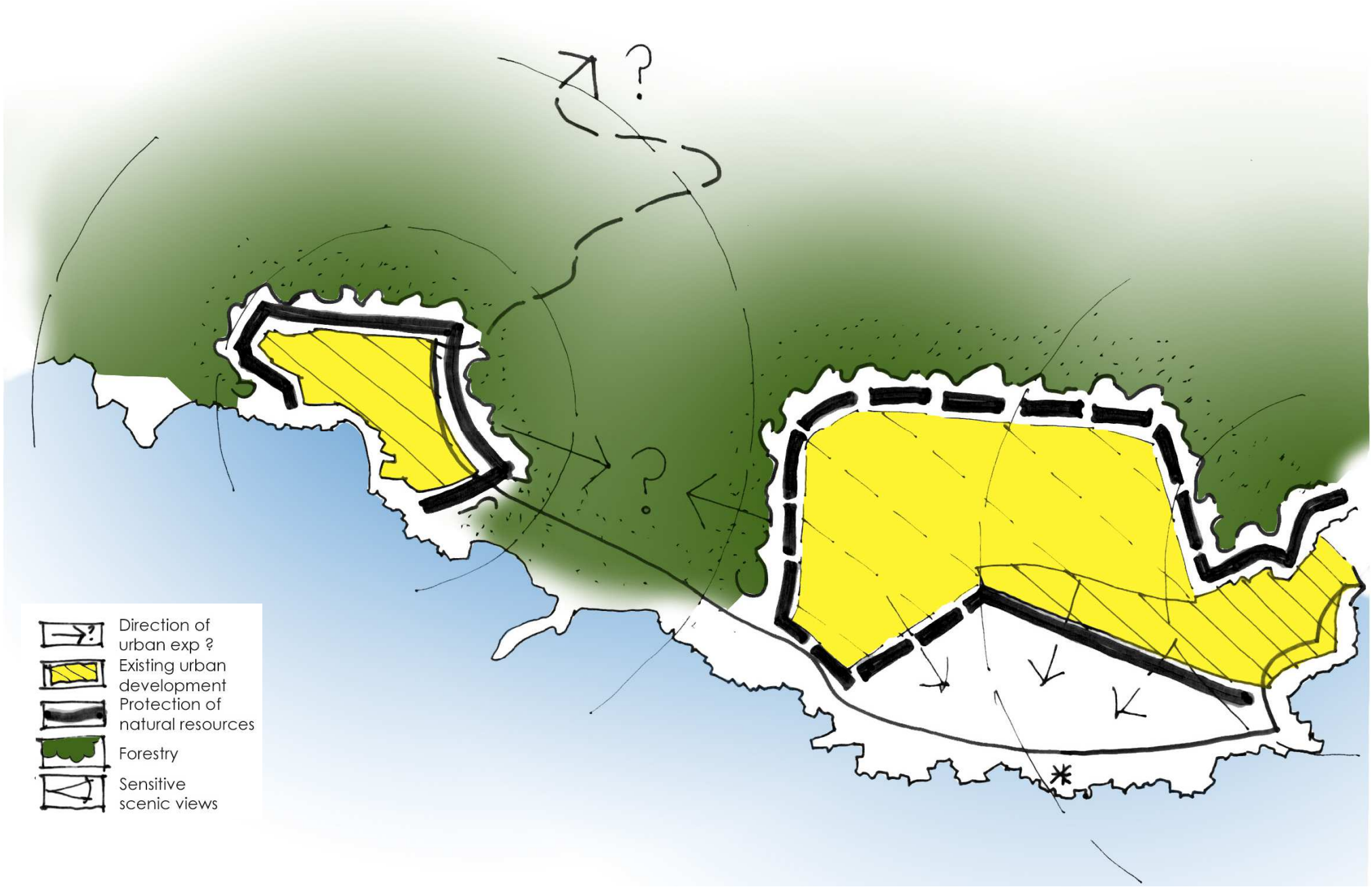


Figure 8.3.2.3 Suiderstrand : Synthesis

8.3.3 PROPOSALS

Struisbaai, see Figure 8.3.3.1

8.3.3.1 Existing development

- Permit 2nd dwellings and subdivisions, see Section 9.

8.3.3.2 Coastal lines/riversides/ ecological corridors and biodiversity

- With due regard to view lines from properties behind and heritage guidelines, flooding and sea level rise promote intensification of coastal properties;
- Promote and maintain coastal pedestrian route;
- Any new development in biodiversity sensitive areas should be subject to an impact assessment. Fine-scale planning maps of CapeNature should be consulted in this regard;
- No new development should be permitted on the primary dune.

8.3.3.3 Main streets (Intensification Corridor)

- Upgrade design quality of buildings and landscaping and intensify development on main road all the way to Agulhas – subdivide but be careful of height visual impact on dwellings to rear – also take into account sea level rise and flooding;

8.3.3.4 Special challenges

- Do not encourage lateral expansion of settlement but rather abut boundaries to L'Agulhas National Park.
- Permit expansion of WWTW (outside the Urban Edge) at its current location.
- Investigate the establishment of a new beach area.

8.3.3.5 New development areas (NDA), see Figure 8.3.3.1

- The development of the large number of vacant erven in these villages should be encouraged before new Greenfield developments are encouraged, especially if they are only for holiday housing. Land below landfill sites – suitable for industrial area extension and housing. Nuisance industrial activity e.g. spray painting, panel beating, industrial woodworking should be confined to new and existing industrial areas (housing plan site). The development of this site should be subject to a botanical assessment due to the possible sensitive nature of the biodiversity;
- (a) interface project with GAP/mixed use units fronting main road and BNG/site and service in the rear, see Section 7.3.5. The street frontages should be well landscaped so as to present a positive image to the entrance to Struisbaai.
- (b) BNG/GAP interface project abutting Langezandt.
- (c) coastward extension of Struisbaai North (Molshoop) for community tourism purposes only;
- (d) encourage development of remainder of Langezandt where possible, especially social and GAP housing and ensure positive interface with Main Street;
- (e) promote properly landscaped industrial / retail fringe along main street, possibly accessed off service road with buildings designed according to architectural and urban design guidelines. The development of this site should be subject to a botanical assessment due to the possible sensitive nature of the biodiversity;
- (f) in the long term prioritise new development including RDP, social, GAP, middle income and upmarket housing according to architectural and urban design guidelines. Infill opportunity inside Urban Edge.

8.3.3.6 Urban Edge

- See Figures 8.3.3.1, 8.3.3.2 and 8.3.3.3.
- All urban development to be located within the Urban Edge. Any development outside of the Urban Edge to be based on PSDF criteria.

8.3.3.7 Heritage, Architectural, Urban Design and Landscape Guideline Areas

- Support Hotagterklip heritage area, see Sections 9 and 10.
- Prepare SDPs for Hotagterklip and Cape L'Agulhas (in progress) to maximise their heritage value and other opportunities;
- Guidelines should be drawn up by heritage, and urban design and architectural guidelines specialists to guide all new buildings and renovations. They should be short, simple and concise and easy to use by lay people including owner builders without architectural, design or building training and experience.
- Support the development of the southern tip of Africa into a world class tourism destination.

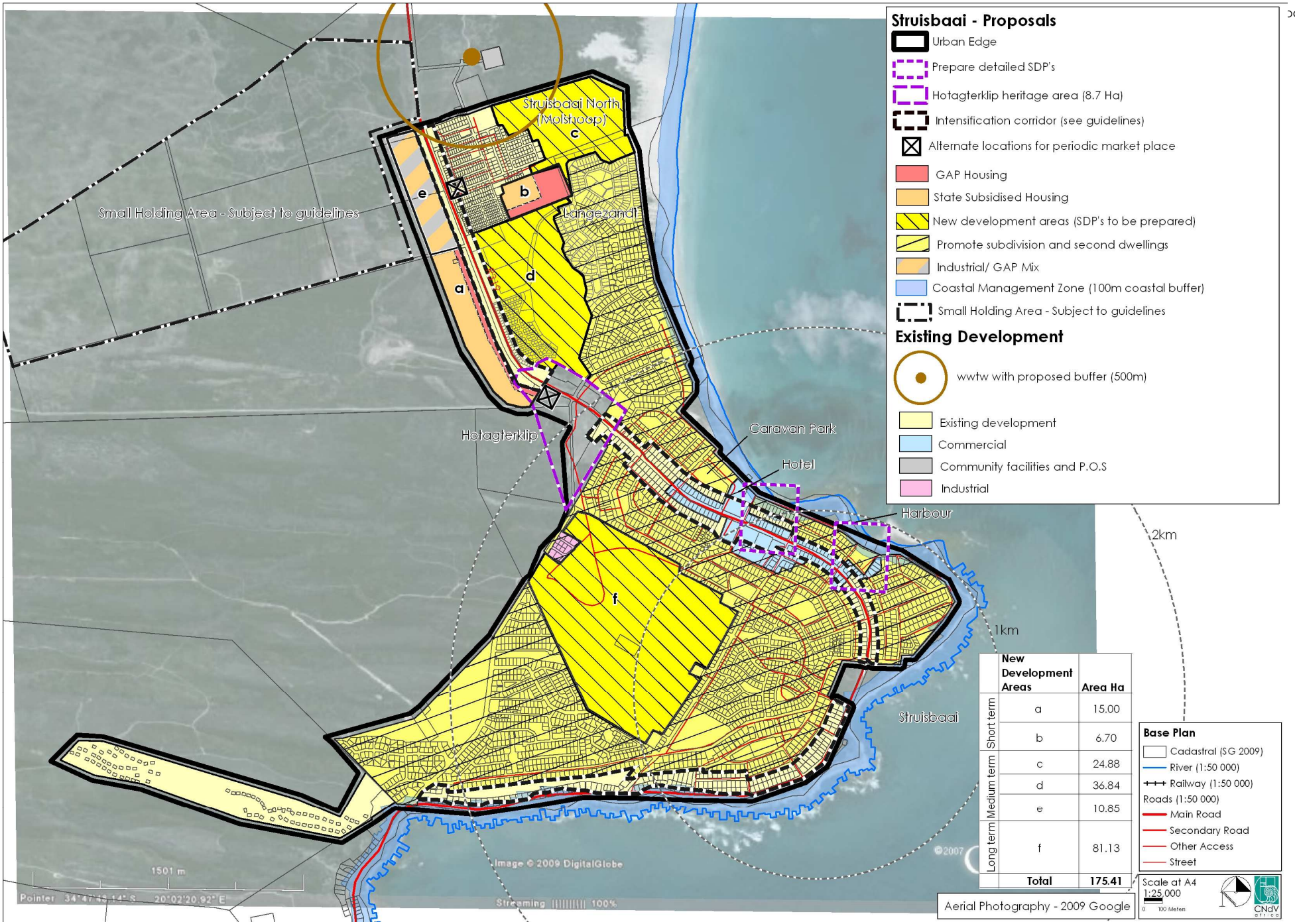


Figure 8.3.3.1 Struisbaai : Proposals

- Development close to historical monuments e.g. Hotagterklip should be sensitively developed with due regard to aspects such as character and view.

8.3.3.8 Economic opportunity areas

- Pursue measures to improve sustainable livelihood of Struisbaai North community including fishing rights for "bakkies in MPAs".
- Install periodic market place at suitable location near Hotagterklip or Struisbaai North (Molshoop).
- Ensure positive interface with Langezandt and main road;
- Mixed use 100 metre deep strip (industrial, retail and residential) from Struisbaai North southwards taking access off service road;

8.3.3.9 Transport

- Promote public transport shuttle and NMT (pedestrian and cycling) along entire Main Road;

8.3.3.10 Smallholding Area

- The character of the Rural Smallholding Zones in Struisbaai must be protected in their present form with limited densification. The objective of this zone is to accommodate the demand for Rural Smallholdings and the listed land uses below in a rural environment. The Rural Smallholding Zone does not involve sustainable agricultural practices although agricultural activities may occur in these areas.

  Development parameters:

  Building lines:
  - Street building line is 30.0m
  - Side building line is 30.0m
  - Rear building line is 30.0m

  Minimum subdivision size:
  - Subdivision of agriculturally valuable land is to be discouraged and should be evaluated by specialist agricultural investigation;
  - All remaining intact patches of Lowland Fynbos areas are to be regarded as no development areas and no further clearing of this indigenous vegetation is to take place;
  - All areas that are not utilised within developments (open space areas) and agricultural areas, should be demarcated towards rehabilitation of the Lowland Fynbos.

Land use parameters:

If desirable, the following land uisesw could be supported (if legal access to water/sanitation is available):
- Dwelling units;
- Additional dwelling;
- Home occupation;
- Bed and breakfast;
- Guest house;
- Nursery;
- Kennel;
- Riding school;
- Keeping of animals;
- Agriculture;
- Warehousing.

Proposals: Agulhas and Suiderstrand, see Figures 8.3.3.2 and 8.3.3.3

In addition to those mentioned above:

8.3.3.11 Encourage development of vacant plots according to new architectural, urban design and sustainable technology guidelines.

8.3.3.12 Improve opportunities for fishing boat access and launching subject to management guidelines.

8.3.3.13 Review the development limitations set for the maximum number of units.

8.3.3.14 Permit additional development at low density subject to the sensitive nature of the biodiversity. The development of this site should be subject to a botanical assessment due to the possible sensitive nature of the biodiversity.

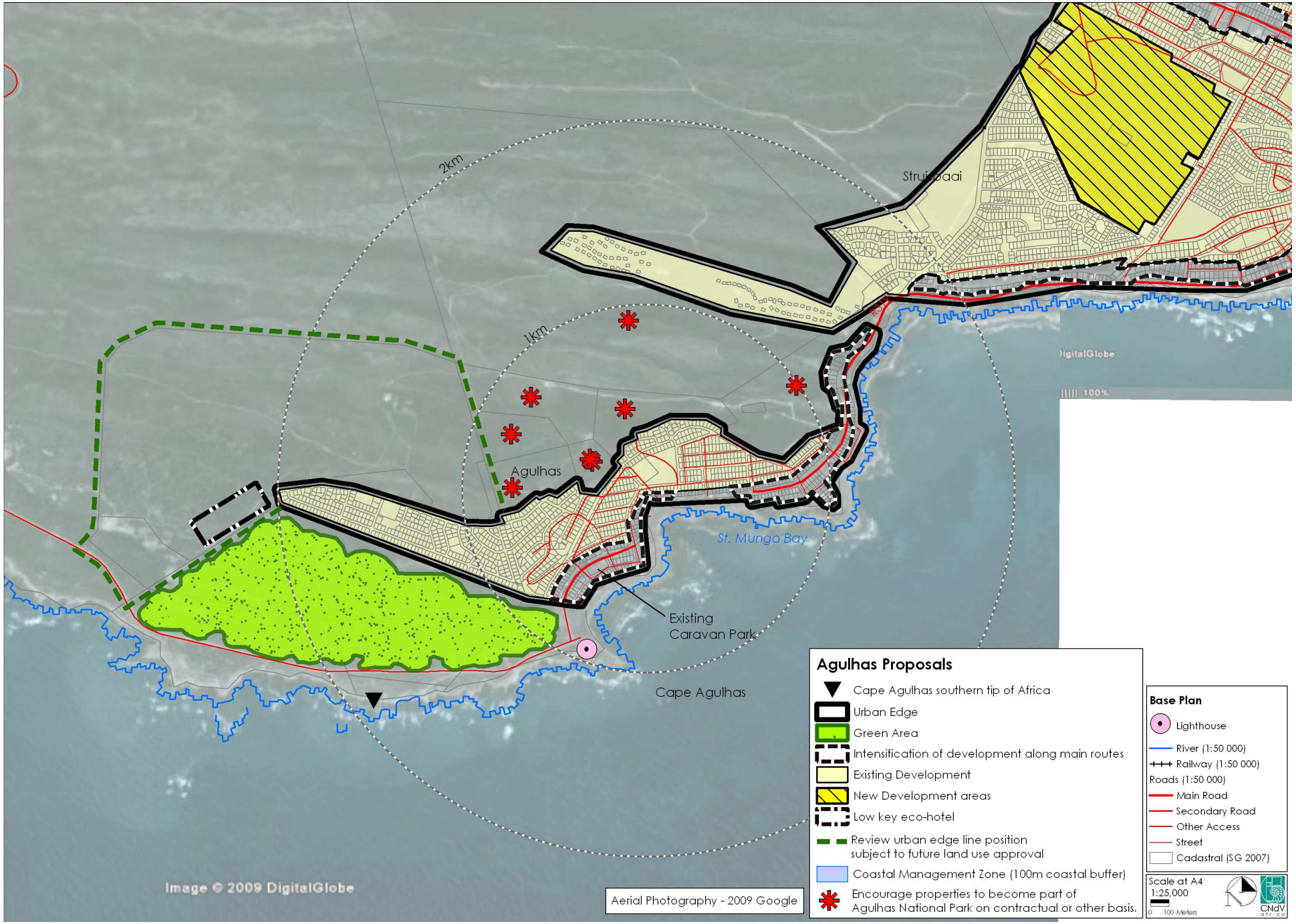


Figure 8.3.3.2 L'Agulhas : Proposals

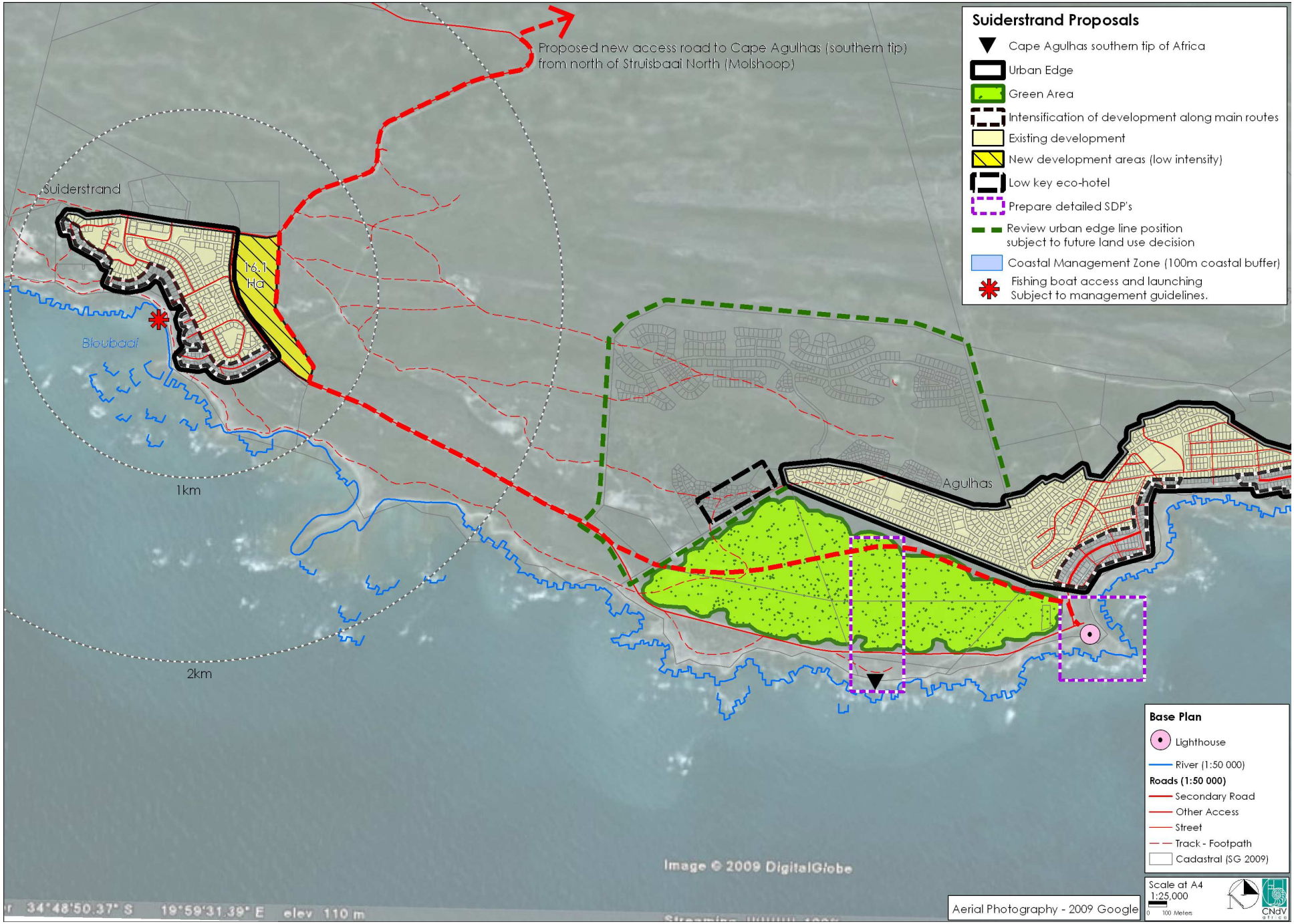


Figure 8.3.3.3 Suiderstrand : Proposals

Proposals: Struisbaai North, Struisbaai, L'Agulhas – Suiderstrand, see Figure 8.3.3.4

8.3.3.15 Plan and manage Struisbaai North (Molshoop), Struisbaai, L'Agulhas and Suiderstrand as a single urban system;

83.3.16 Propose incentives to encourage development of vacant serviced plots – rates premiums etc.;

8.3.3.17 Prioritise strongly promoting sustainable servicing technologies; particularly rainwater harvesting in these settlements – new build and retrofit;

8.3.3.18 Support efforts to extend L'Agulhas National Park to fringes of these settlements by means of stewardship programs. This will add considerable value to abutting properties and, therefore, rates income, with little public investment;

8.3.3.19 Pursue tarring of scenic drive along northern boundary of small farms between Struisbaai North and Suiderstrand to create a ring road system with a wide variety of scenic and urban experiences.

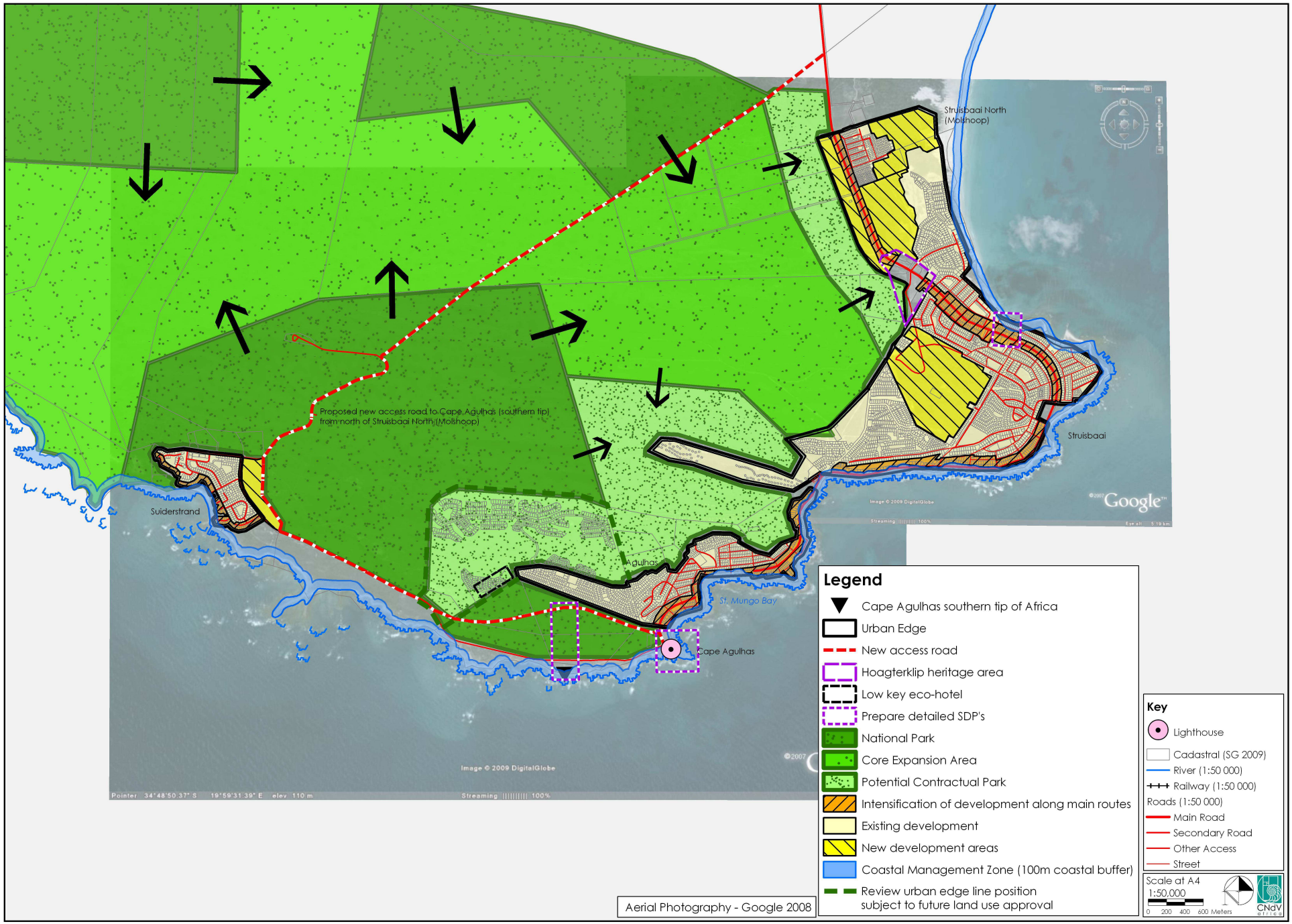


Figure 8.3.3.4 Struisbaai – L'Agulhas - Suiderstrand : Proposals

8.4 ARNISTON

8.4.1 ANALYSIS, see Figure 8.4.1.1

8.4.1.1 Background

The distant past is most noticeable at Arniston where not only are there strandloper middens dating back to the stone age but there are also well preserved stone fish traps in the intertidal zone dating from the middle of the last millennium. Arniston's modern history begins approximately 150 years ago with a small informal settlement and later with the introduction of very small fishing boats, "bakkies" which could be launched from the beach. This area was later formalised as a large slip way, although still too small to launch large fishing boats, longer than 10 metres from.

At the same time it would appear that dwellings began to be formalised into fisherman's cottages, similar to the "lang huise" found in the Western Cape as well as the peasant crofts found in Europe and Britain. These thick walled buildings could be built out of whatever local building materials were at hand, their narrow floor plan was short enough for the span of most available timber for trusses and roofing materials were provided by local thatching reed or grass species. These cottages were informally laid out, generally facing north but with sneak views of the sea on which the community depended for a living.

At Arniston the fishing village became known as Kassiesbaai and thrived, in the sense that the community was self-sufficient in catering for its modest needs up until the 1970s. Then the community faced two challenges: Firstly, a threat of forced removal such as happened to Skipskop, another small fishing village on the coast to the east to make way for the missile testing range. After much struggle the community managed to retain its right to remain. During this time some formal freehold plots were developed inland from Kassiesbaai but the main part of the village remained intact.

The second threat, and one from which the fishers in the community have not really recovered, has been the gradual removal of fishing rights due to quota allocation procedures which appear to have generally favoured large fishing enterprises, particularly corporates, over small subsistence fishers. For instance, only boats longer than 10 metres could obtain permits. As a consequence of these measures, changes in the location of the fishing resource and, judging by the diminishing catches notwithstanding the withdrawing of rights from small fishermen, over fishing from corporate fishers as well as poaching, Kassiesbaai original economic reason for existence has considerably diminished.

The site of the village, conveniently situated close to the slip way and affording fishers a view of the sea to check on conditions, is also a prime holiday housing location.

There was no freehold title in this part of the settlement although immediately south a formal township was first laid out in the late 1800s which has become the very upmarket holiday village of Arniston

This part of the settlement largely comprises freehold holiday homes which demand a considerable premium due to their prime location and the brand image that the village has developed.

There is also an internationally renowned 64 bedroom four star hotel occupying a prime position on the beach near the slip way at the centre of the village.

8.4.1.2 Natural Systems

- ***Topography***

Arniston is located at the junction of a rocky headland, Struispunt, to the south, and a long beach and vegetated primary dune system, Dollas Downs, stretching westwards towards De Hoop and Infanta. Inland the settlement is surrounded by a series of low vegetated undulating dune fields.

- ***Rivers and water***

As with most settlements that began as fishing, and not agricultural, villages access to water supplies beyond that necessary for personal use was unnecessary. This means that today, with the additional residents during the holiday season peaks water supplies and sewage treatment capacity is severely stretched.

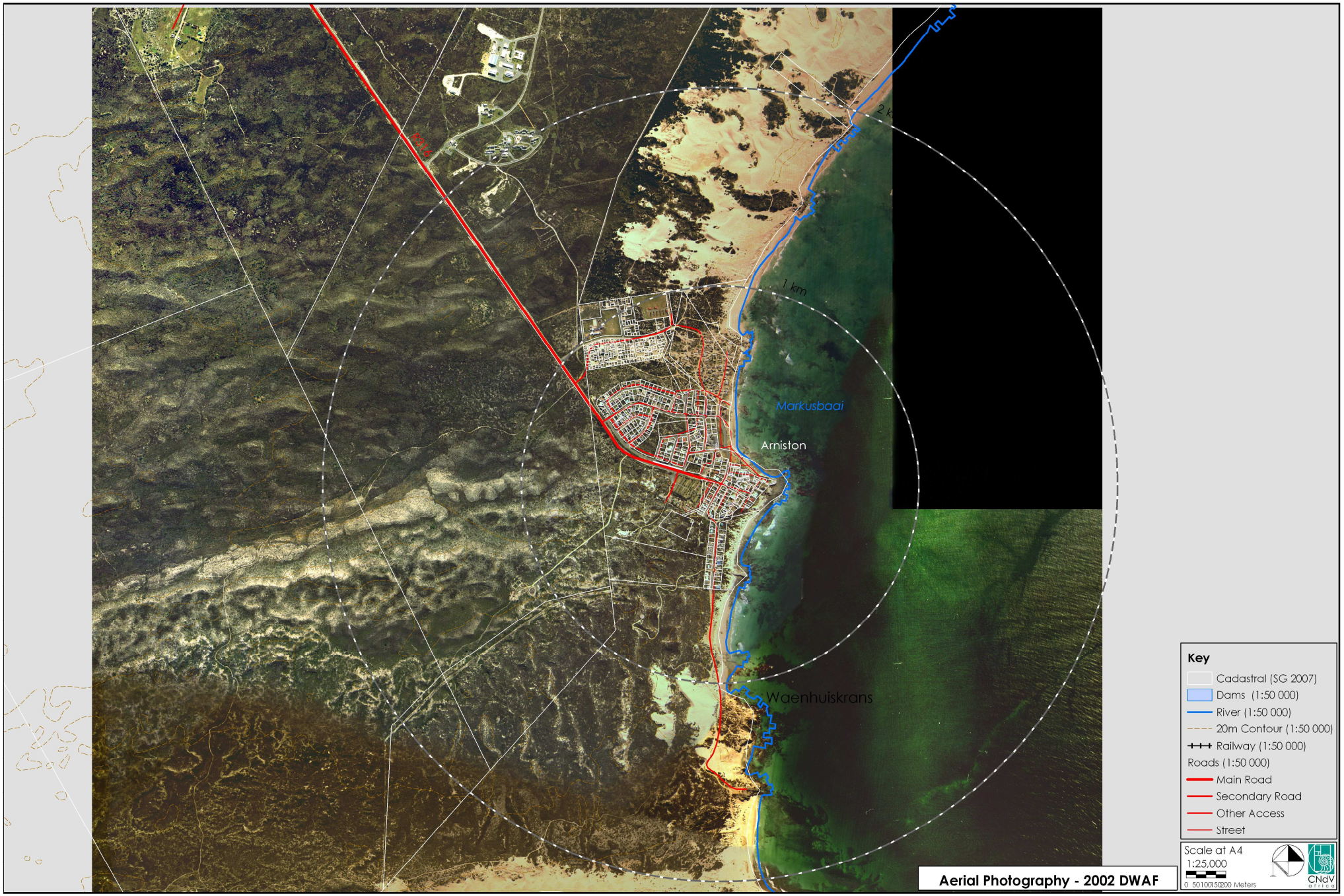


Figure 8.4.1.1 Arniston

- ***Vegetation and land cover***

This largely comprises dune grasses and fynbos with coastal thicket inland.

The vegetation and topography is conserved in De Mond nature reserve abutting the village's southern boundary including Struispunt and the beginning of the 24 km beach stretching towards Struisbaai to the south.

8.4.1.3 Socio-economic trends

Arniston has a permanent population of only approximately 1 500 people (Census 2001 and projections) most of whom comprise Kassiesbaai residents and employees in the few businesses in town including the hotel.

This population increases three to fourfold in peak holiday seasons.

There is a primary school and there appears to be 2 or 3 clinics but there are no doctors or dentists or other medical specialists.

Employment is largely confined to personal services, mainly government, tourism and domestic work. Increasingly fishers have to travel to Struisbaai because the larger boats that can obtain permits can only operate from here.

It is clear that unless the considerable efforts are being put into negotiations with the Department of Marine and Coastal Management to create some benefits for the small scale fishing industry Arniston's original economic reason for being will become completely redundant.

8.4.1.4 Layout, functionality and built form

- ***Layout***

Arniston is an ad-hoc mix of townships laid out at different times and designed to different principles ranging from the organic:

- unsubdivided layout of Kassiesbaai;
- formalised informal layout of existing houses on the point;

to the:

- 1960s/1970s large lot curvilinear plots behind the hotel
- Irregular cul-de-sac layout near the community hall and library for which it is famous.

To the south and east the settlement is bounded by De Punt Nature Reserve.

There is one large privately owned property to the west which forms part of the Dollas Downs dune system that becomes part of De Hoop nature reserve to the west.

- ***Functionality***

Probably mainly due to its small size Arniston has managed to remain fairly compact, within a 1 kilometre radius and pedestrian access is convenient.

The location of the new business centre, notwithstanding detailed architectural and urban design concerns, is well located to continue reinforcing the compact nature of the settlement.

However, the apartheid inspired separation of the two communities is still evident with the open buffer of land between Kassiesbaai and Arniston bridged only by the historic Kassiesbaai village.

Some community facilities, such as the library and hall, are located on the northern periphery of the settlement, not easily accessible to those members of the community living in the south although still within walking distance.

The town's infrastructure is unable to cope with demand during the peak holiday seasons. It is surprising that rain water harvesting, grey water recycling and solar water heating is not compulsory on new buildings. Aesthetic issues will have to be addressed regarding the retrofitting of this technology on the historic buildings in Kassiesbaai. Possibly these buildings can be exempt if these technologies are retrofitted on all the other existing buildings in Arniston and made compulsory on all new ones.

- ***Built form and sense of place***

Sometimes an historic development process manages to achieve an overall unity and theme that strengthens and enhances a settlement's

sense of place. Quite the opposite has happened with Arniston. The sense of arrival is anti-climatic as the main access road passes the government housing projects to the west of Kassiesbaai from which it is separated by a vacant 200m buffer strip, skirts around the back of the 1960s – 70s holiday housing whose designs offer little to the regional architecture of the Overberg and then peters out into a series of little streets whose scale is too intimate for a main thoroughfare.

Even this uninspiring entry to the village appears in danger of being undermined unless there is an inspired architectural and urban design resolution to the partially constructed shopping centre abutting the final approach.

It is only when one descends towards the public space in front of the hotel that Arniston begins to reveal the qualities that make it a highly desirable upmarket holiday destination.

8.4.1.5 Urban Development Trends

Arniston is subject to a number of conflicting developmental trends:

First: the Kassiesbaai community is currently in a precarious position. Many of its buildings are run down as residents are unable to maintain buildings, of concern to those who appreciate the settlement for its aesthetic value. There is also a considerable out migration of the economically active either seasonally or permanently. Some local jobs have become available in tourism but many of these are seasonal. Furthermore, in terms of conventional financing options the lack of freehold in Kassiesbaai means that there is no collateral value on the buildings because they are under the communal control of the Fishermen's Trust.

A number of powerful conflicting forces need to reconciled here. First, the demand for freehold will mobilise capital for the residents but will likely lead to the demise of the current community within two generations judging by anecdotal experience elsewhere in similarly geographically and economically located communities, for example, Churchhaven on the West Coast. Secondly, if the community is to remain viable in its current form then access to sustainable livelihoods for the large majority of the residents, i.e. a 90% solution and not a 10% solution (e.g. some part time jobs in an environmental centre), will be necessary. This will require addressing macro-economic policy issues particularly relating to fishing rights and quotas.

Second; the expansion of the hotel. The hotel is an internationally renowned venue and as such, providing standards and marketing levels are maintained, has the potential to be sustainable into the long term. There is no other similar facility on the Cape L'Agulhas coastline although there is arguably potential for more, for instance in Struisbaai-L'Agulhas-Suiderstrand, but the barriers to entry are considerable. However, the expansion of the hotel is leading to a number of local problems including access to the public space in front of it, the need for parking and overlooking and overshadowing surrounding neighbours.

Third; the pressure to release more coastal land for holiday housing. While the market may currently be in the doldrums the demand for high quality leisure opportunities is on a long term growth curve and these pressures are likely to resume in future years. Both De Mond nature reserve and the western section of the Dollas Downs abutting Kassiesbaai are under pressure in this regard notwithstanding their bio-physical conservation importance. This will lead to linear coastal development which around the world is being resisted because of its negative impacts on coastal protection provided by the primary barrier dunes, sea level rise and visual pollution of wilderness areas. These concerns have to be weighed against any long term sustainable economic and employment benefits that may be possible.

Fourth; commercial development in the centre of the village. While there is always a need for small scale convenience services and, if done properly, these can both enhance the attractiveness of a settlement and provide long term sustainable livelihoods, care must be taken that they do not detract from the attractions that created the initial demand. Too many South African small towns have their ambience undermined by the insensitive design, appearance and functioning of convenience stores and filling stations.

8.4.2 SYNTHESIS, see Figure 8.4.2.1

- At the macro level Arniston is a compact settlement with the entire village fitting within a 1kilometre radius. Thus, the various components of the village are conveniently accessible within walking distance;
- However, at the micro-level Arniston is beset with many of the same problems, particularly those relating to apartheid settlement layout, faced by much large settlements;
- There are also detailed problems of an internal road circulation system that requires resolution and a sense of arrival along the R316 that makes a poor first impression;
- There are also some unique features in the Kassiesbaai component whose communal tenure, organic layout and house construction, and to a very limited extent, traditional livelihood, have managed to survive. However, this component is not thriving and is endanger of collapse if effective remedies that address 90% and not 10% of the problems, are not found;
- In addition to the social and urban interest arising from Kassiesbaai, Arniston also owes much of its attractiveness to its appeal as a seaside holiday destination with its scenic beaches and headlands. This appeal is enhanced by Arniston's sense of wilderness enhanced by its approach across the L'Agulhas plain and its lateral boundaries of De Mond Nature Reserve to the south and the Dollas Downs dune and beach system stretching all the way to De Hoop Nature Reserve to the north;
- However, within a fairly compact perimeter there are a number of vacant parcels of land, totalling approx. 30 has. These have very different characteristics and could provide the basis for the redevelopment of Arniston without detracting from its main assets and could help to remedy some of its current problems. This could assist its transition from an extremely seasonal holiday economy to a year round economy providing more sustained livelihoods;
- The Kassiesbaai community could continue to become part of this more sustainable tourism economy through skills training and greater participation. Revitalising its original economic base, fishing, is dependent on the success of national level negotiations to restore the rights of line and rock fishers;
- There are a number of areas for urban expansion whose development will not detract from the current compact pattern of the village;
- With the exception of the opportunity north of Kassiesbaai these areas do not face the sea and so could be developed for less expensive accommodation;
- The Kassiesbaai north area represents a prime opportunity for the sensitive development of potentially one of the most prime opportunities on the South African coast. Careful consideration will be required as to how the capital surplus from such a development could be turned into a sustainable community income stream.

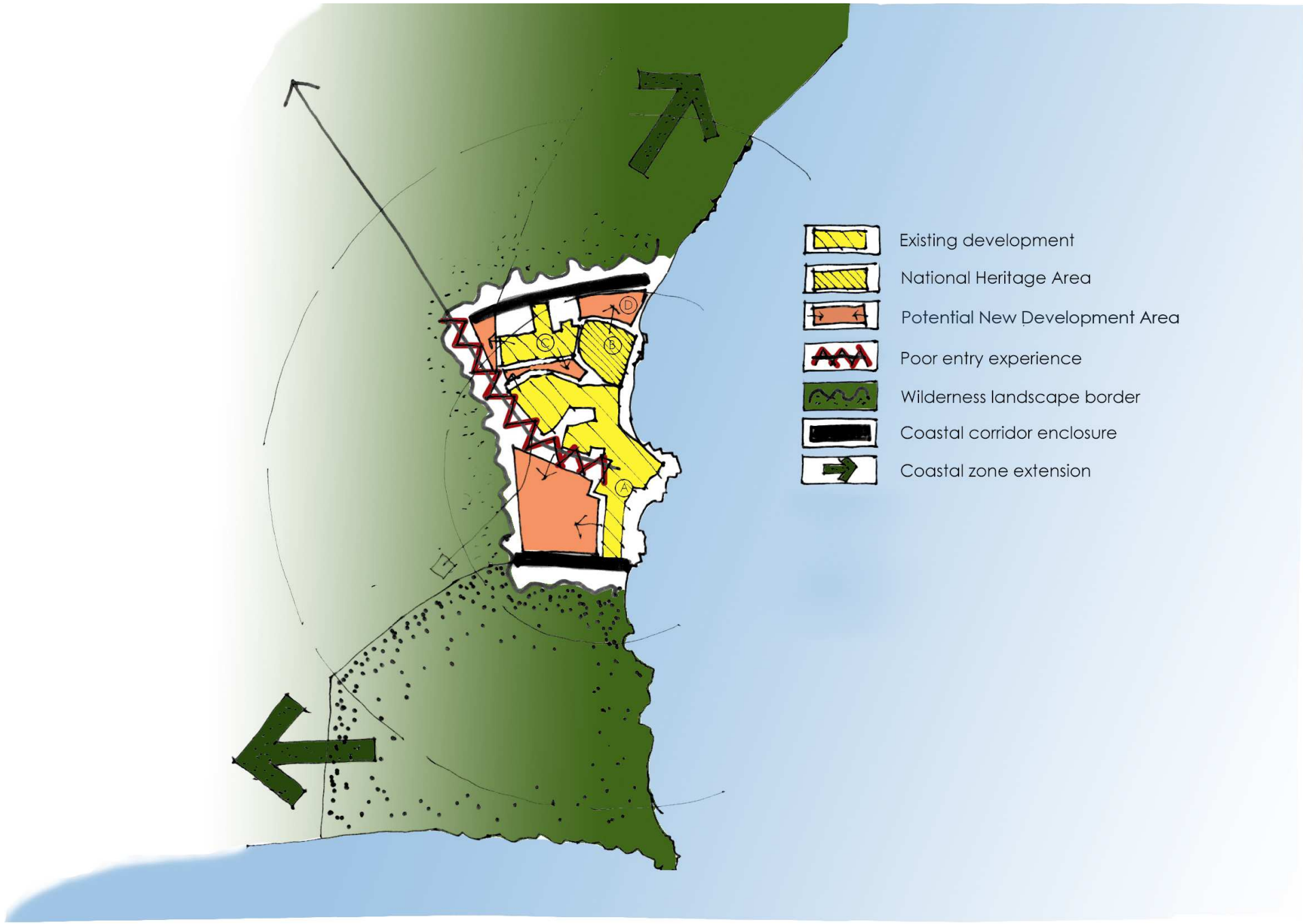


Figure 8.4.2.1 Arniston : Synthesis

8.4.3 PROPOSALS, see Figure 8.4.3.1

8.4.3.1 Existing Development

- Permit 2nd dwellings and subdivisions according to heritage, architectural and urban design guidelines as appropriate.

8.4.3.2 Coastal lines/Riversides/ Ecological Corridors and Biodiversity

- Promote new and intensification of existing coastal development north taking into account views from properties behind, flooding and sea-level rise, coastal set back lines, and heritage, architectural and urban design guidelines.
- No development to be permitted on coastal dune without the due impact assessments completed.
- Any new development in biodiversity sensitive areas should be subject to an impact assessment. Fine-scale planning maps of CapeNature should be consulted in this regard.

8.4.3.3 Main streets

- Intensify development along Main Street taking into account architectural and urban design guidelines and ensure that buildings face and do not turn their backs onto the Main Street;
- Create access landmark and appropriate development around Kampstraat / R316 intersection. A traffic circle at this position could help to create such a transition between a highway and urban road and to create a sense of arrival;
- Given that R316 is a PMR, investigate the possibility of deproclaiming this Main Road to stimulate natural intergration and mixed use development along side it.
- Construct a link road from Kampstraat, along western boundary of Kassiesbaai Conservation area, along Randstraat intersecting with R316, thereby helping to integrate Kassiesbaai and Arniston.

8.4.3.4 Special challenges

- Portions of area (a) and (d) could be used for appropriate low nuisance light industry, e.g. perlemoen farming;
- Pursue measures to improve sustainable livelihood of Kassiesbaai community including fishing rights for "bakkies in MPAs";
- Carefully investigate institutional options for Kassiesbaai taking into account all implications;
- Prioritise strongly promoting sustainable servicing technologies in these settlements – new build and retrofit including rainwater harvesting, grey water recycling, solar hot water heating, PV Cell generation.
- Kassiesbaai Land tenure issues that need to be resolved through consultation with the relevant stakeholder.
- Investigate a landswop of the apex of the Kassiesbaai Triangle and Struisbaai north between the Municipality and the Kassiesbaai community to ensure the sensible development of area (d).

8.4.3.5 New Development Areas

- area along R316, new gateway to Arniston (3.3ha). The development of this site should be subject to a botanical assessment due to the possible sensitive nature of the biodiversity.
- Land acquisition from Denel to be investigated as an interface project, see Section 7.3.5 for principles for GAP and BNG housing only, not site and service;
- sensitively develop area in Kassiesbaai north, subject to HIA and possibly EIA requirements (9.8ha);
- area between Kassiesbaai North and Arniston, use buffer strip to integrate the settlement (5.7ha);
- area west of R316 Harbour Road (18.1ha). Infill opportunity inside Urban Edge subject to the environmental sensitivity of the site.

8.4.3.6 Urban Edge

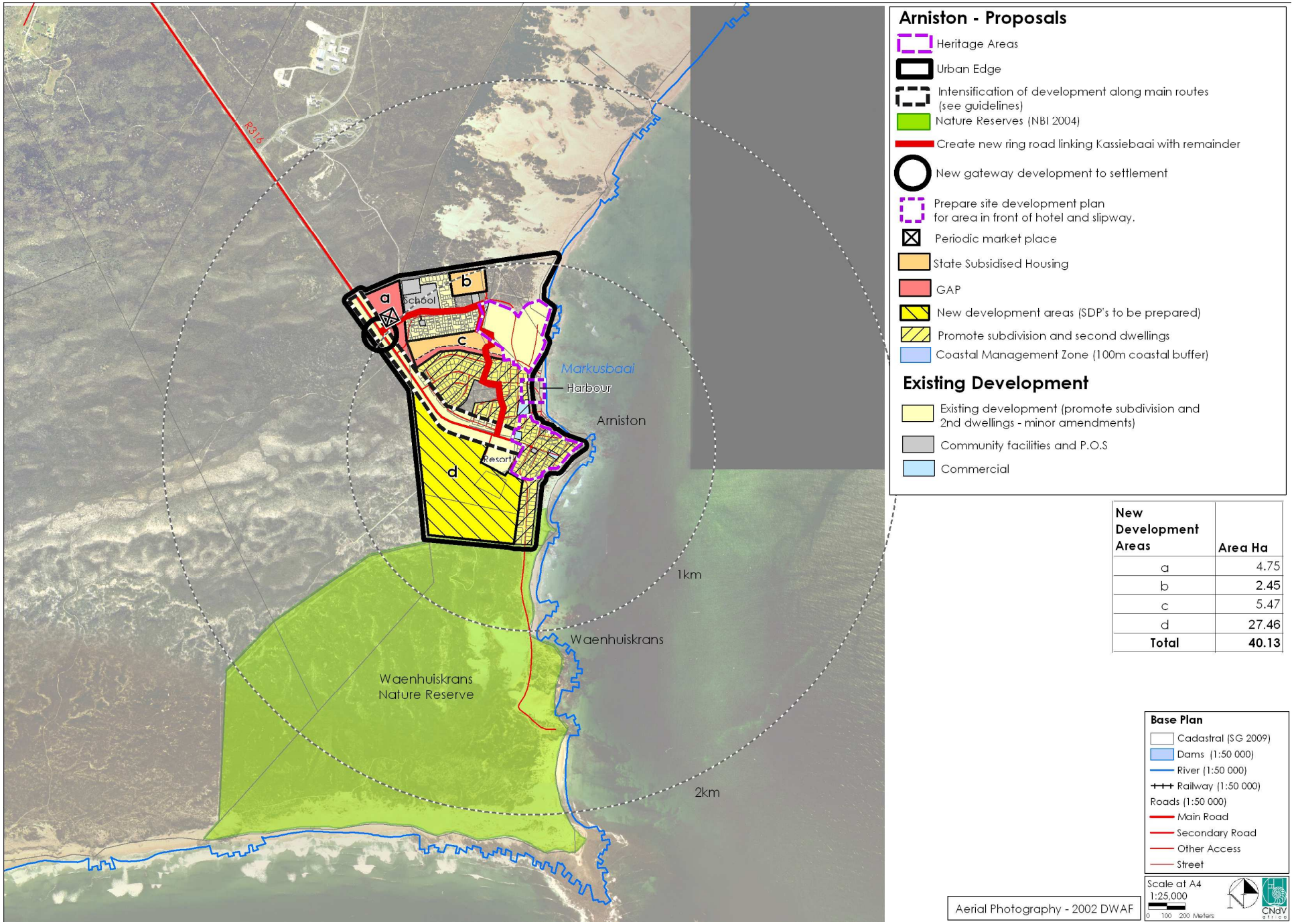
- See Figure 8.4.3.1.

8.4.3.7 Heritage Areas

- Support existing heritage areas.
- Identify and protect other existing heritage areas.
- Development close to historical monuments e.g. Kassiesbaai should be sensitively developed giving due regard to aspects such as character and views.

8.4.3.8 Economic linkage areas

- Include periodic market at Kampstraat and line shops along proposed upgraded R316.



New Development Areas	Area Ha
a	4.75
b	2.45
c	5.47
d	27.46
Total	**40.13**

Figure 8.4.3.1 Arniston : Proposals

- During the holiday period informal markets can be created as "special areas/ events" at Roman Beach, close to the harbour hotel and on the Main Road next to the camp site.

8.4.3.9 Services

- Shortages to be addressed for the development of new areas.

8.4.3.10 Transport

- Promote pedestrian and cycling facilities along main routes.

8.4.3.11 Future lateral growth direction

- No northwards or southwards expansion should be entertained.

8.5 ELIM

8.5.1 ANALYSIS, see Figure 8.5.1.1

8.5.1.1 Background

Elim was founded in 1824 by Moravian missionaries working with the local Khoi, mainly freed slaves. A monument to the freedom of slaves, the only one in South Africa, was erected in 1834. The Moravians brought manufacturing and craft skills, particularly thatching, to the area. Today Elim thatchers are employed around the world. By 1833 a fully self sufficient settlement with a water-mill had been established.

Bishop Hallbeck acquired the farm Vogelfontein (7 500ha) in 1824, first established by a Huguenot, Louis du Toit who built the main homestead, still extant, in 1796. The name was changed to Elim (palm trees) in 1825.

The mill was recently restored in 1990 and it is possible to get tea and cakes and visit the museum. However, the sustainability of these ventures remains a challenge.

There is no freehold ownership in the village. The entire farm including the village is held in trust by the church. Families occupy dwellings under the guidance of the church.

8.5.1.2 Natural Systems

- ***Topography***

Elim village is situated in fertile rolling countryside incised by a number of gentle river valleys. The village is situated on the north facing south bank of the main river.

- ***Rivers and water***

Elim village is surrounded on three sides by the Nuwejaars River and two of its tributaries. This enabled the village to be irrigated with furrows that led the water along the streets of the village as well as to the garden plots located in the valleys.

The Nuwejaars flows into the large vlei of the same name further west outside of the Elim property,

- ***Vegetation and land cover***

About 50% of Elim farm (6 500ha) is arable with the remainder suitable for grazing and fynbos conservation

There are important patches of fynbos on the property and Elim holds a flower festival every year. There is a nature reserve on the property.

Large areas of the farm are used for grazing and some of it for dry land cropping.

An agricultural development plan has been prepared

8.5.1.3 Socio-economic trends

In 2001 Elim's population was 1 300 forecasted to increase to 1500 in 2010. This is a similar size to Arniston's permanent population.

Elim has the lowest economically active population in the municipality, although it is still 57%, indicating a relatively high proportion of migrant workers and the second highest number of aged over 65 (15%) after L'Agulhas.

Elim has 1 clinic and apparently has 1 GP. It has a primary school that was of a very high standard in the past. The current situation is not known.

Only 10% of the community make their living from agriculture using the plots which they have been allocated. Some of these farmers have expressed a desire to become commercial farmers on their own farms. Current agricultural activities include mushrooms, wheat, wild flowers, livestock – cattle and sheep, pigs, honey, baking and traditional plant gardening.

New projects proposed include: vineyards and wine-making, dairy and fynbos harvesting.

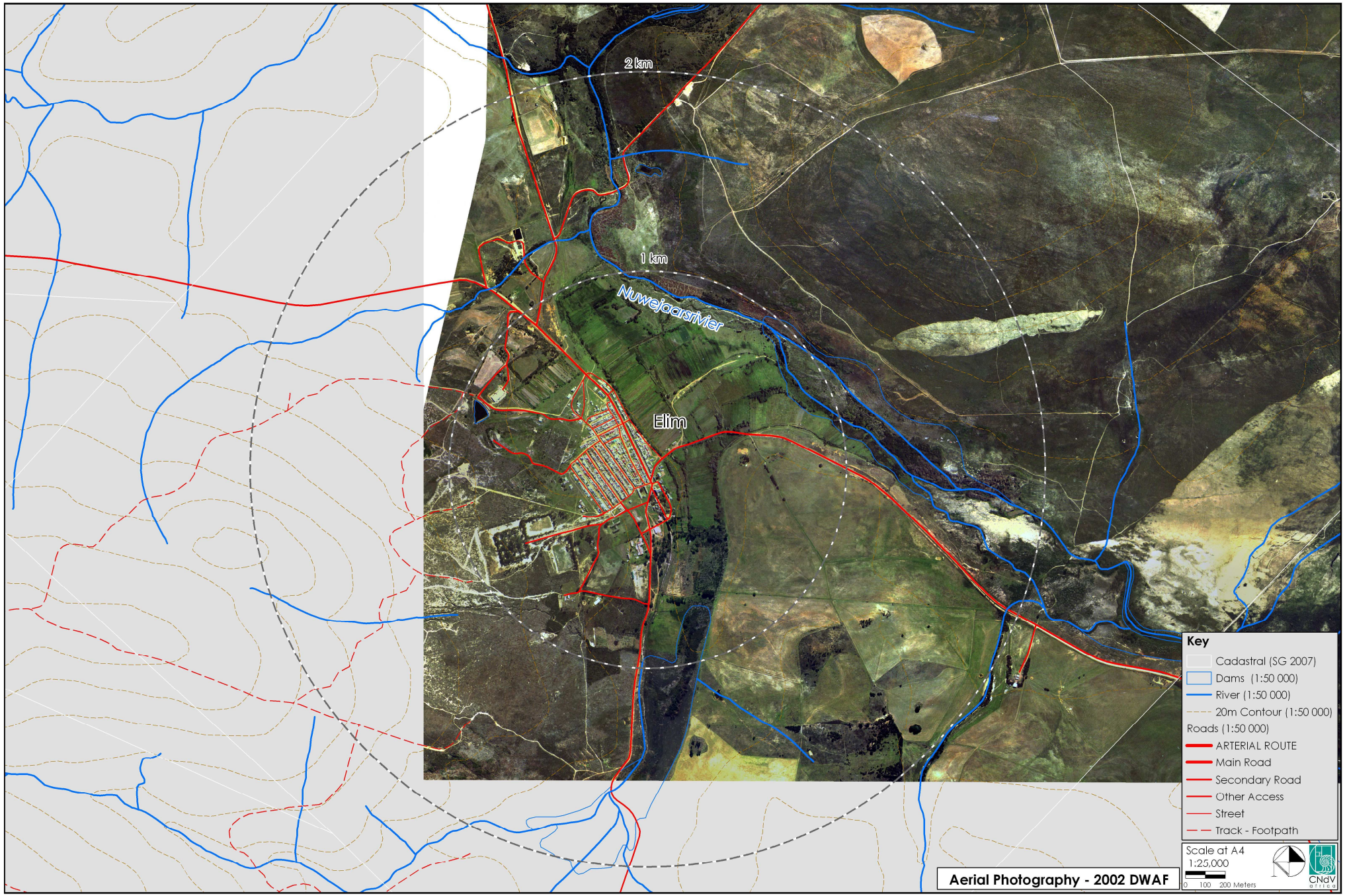


Figure 8.5.1.1 Elim

A large number of the community's economically active work in the surrounding area, both on farms and in the urban settlements.

A significant proportion live in Cape Town and other cities while, as stated earlier, some are overseas working as thatchers.

Elim has considerable tourist potential and while this has been exploited to some extent there is a strong sense that these activities could be considerably enhanced. Tarring the road to Gansbaai will help significantly in this regard as tour coaches will only travel on tar roads and currently Elim isn't sufficiently developed as a tourist destination, nor has the overnight infrastructure, to support coach tours.

Elim appears to enjoy a relatively good relationship with surrounding farmers with some of them, in the past, educating their children in the primary school due to its good education levels. It is not clear whether this still occurs.

Although because of its semi-autonomous status Elim residents do not appear on the municipal housing waiting list it seems that there is a housing shortage according to representations from the community. This has not been verified.

8.5.1.4 Layout, functionality and built form

- ***Layout and infrastructure***

The village has a different layout from the typical bastide Voortrekker "rydorp" layout with the central church facing the town hall with a market square in between although Elim is also watered with "lui" water furrows.

In Elim there are three distinct components:

- The community residential area;
- The church and community buildings, including the school, hall and shop; and,
- The church offices, clergy residences and mill and factory (now a museum).

The community live in rows of close set cottages, similar to those found at Kassiesbaai and Hotagterklip, but much more orderly laid out.

- ***Functionality***

Elim is the most dense of the Overberg settlements at an average gross density of 14 du/ha. Similar density levels have been observed in other rural settlements, mainly missions stations, and this figure would seem to be a bench mark at which a rural settlement performs sustainably with regards to pedestrian accessibility, limiting the need to use a motor vehicle for convenience trips, supporting small businesses and community facilities, and limiting consumption of scarce agricultural, scenic and bio-diverse land especially that close to the settlement's borders where it is most in demand and conveniently located.

- ***Built form and sense of place***

Elim's built form comprises a consistent massing of orderly rows of small cottages, all individually built and therefore distinguished by small variations in detail which lends interest, and a series of larger community, industrial and commercial buildings whose size and shape varies according to their function, surrounding the largest building of them all, the church, which is one of the best examples of a Moravian mission church in South Africa. All of the buildings, notwithstanding their size or importance, are made in an extremely consistent architectural language of lime washed walls, with small openings (windows and doors) puncturing large expanses of wall and double pitched roofs, mainly thatch.

Unlike most South African settlements which today have to rely on their scenic setting, if this even exists, for any quality of their sense of place because of the mediocre and ad-hoc approach to the making of their buildings Elim is a memorable contrast. The quality of its built fabric is in itself, a tourist attraction and therefore has the potential to create economic value for the residents. This scenery in which the village stands only further enhances this sense of place.

However, there are affordability problems in maintaining this quality. Some of it relates to practical issues such as the use of thatch and its insurability, availability of material and difficulty for rainwater harvesting. Others relate to the use of inappropriate building materials, e.g. repairing lime and mud render with cement based plaster.

8.5.1.5 Urban Development Trends

Due to the fact that only members of the community can live in the village Elim does not experience development pressure in the conventional sense for either low or upmarket housing or for other forms of development.

However, care needs to be taken with the construction or renovation of individual buildings. For example, the three buildings at the entrance to the village from Bredasdorp could have benefitted from more thought as to how their upgrading might detract from Elim's sense of place.

A need has been identified for housing although this cannot be sourced in the normal way through the municipality and government housing subsidies as the land is not publicly owned.

Land has been identified for future development to the north and south of the settlement. Architectural and urban design guidelines will be especially critical should this land be developed.

8.5.2 SYNTHESIS, see Figure 8.5.2.1

Entrepreneurial development, leadership, remuneration and returns on labour, capital and initiative are clearly issues that have to be dealt with in an institutional structure like Elim's. A model based on similar principles to those used by the Royal Bafokeng Nation's development of their platinum resources in Rustenburg to benefit a wide range of community business and social needs should be investigated.

There is currently a Catch 22 regarding Elim's economic development options. Elim's appearance and lifestyle is conducive to it being a great tourist attraction both culturally and scenically but the need to tar the road to Gansbaai to create a circular tourist route and the institutional structure of the village, which makes it difficult to mobilise entrepreneurial ability, are two major constraints preventing this potential being realised.

However, the obvious solution, which is to dismantle the communal structure of the landholdings and management and move this onto an individual freehold basis with some of the management functions transferred to the far away municipality is likely to also destroy many of the qualities that have enabled the community to survive in its present state.

A more appropriate response that could retain some of the advantages of the current structure but also introduce the concept of entrepreneurial reward could be to follow the institutional structure used in many large corporations. This would entail the land and property remaining in a corporate structure under the control of trustees underneath which various business operations could be registered as sole traders, closed corporations or private limited companies.

This corporate structure could also be a Communal Property Association under the guidance of the Department of Land Affairs.

The various business operations would pay rent or levies to the corporate structure which should have a very lean cost structure so that the maximum amount of income is available to cross-subsidise social/communal benefits such as building maintenance and repair. This structure could also make allowance for importing, if necessary, outside skills and resources in the form of capital and mentorship, currently not possible because of the need for all participants to be Moravians.

Because it has never suffered from contemporary urban development informed by modernist and apartheid town planning principles and the perceived spatial freedom created by the motor car, Elim retains its historic and appropriate relationship with the land.

There are opportunities for the lateral expansion of Elim without significantly disturbing these relationships, see Figure 8.5.2.1.

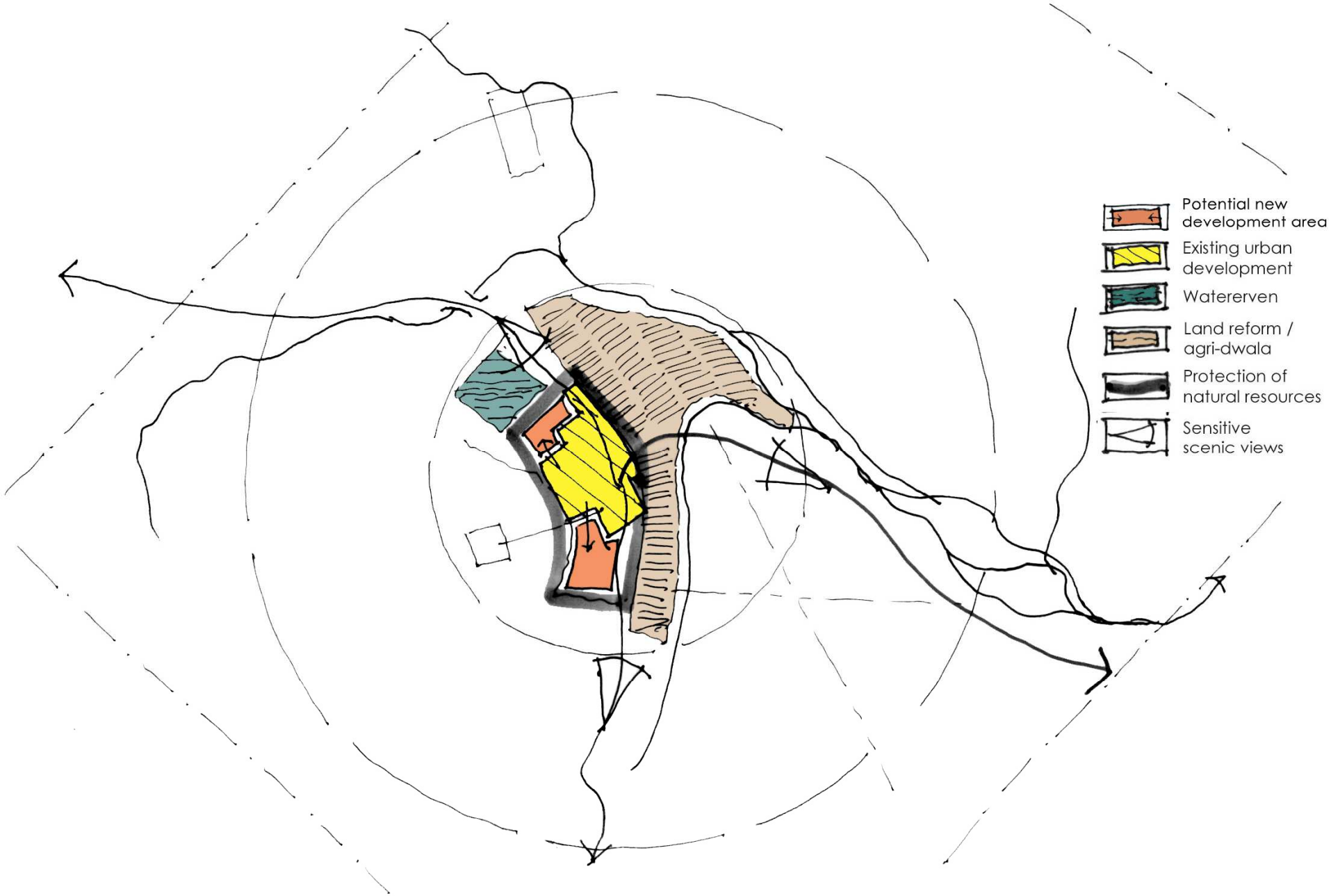


Figure 8.5.2.1 Elim : Synthesis

8.5.3 PROPOSALS, see Figure 8.5.3.1

8.5.3.1 Existing Development

- There is no scope for further 2nd dwellings on the existing plots (household use areas), no ploughing etc.

8.5.3.2 Riversides/ Ecological Corridors and Biodiversity

- 10m – 30m riparian edges or 1:100 year flood lines should be demarcated by a fresh water ecologist along the Nuwejaarsrivier and its main tributaries.
- Any new development in biodiversity sensitive areas should be subject to an impact assessment. Fine-scale planning maps of CapeNature should be consulted in this regard.

8.5.3.3 Main streets

- The guidelines promoting urban conservation along the Main Street should be promoted;
- If required, subsidies to assist with retaining the original appearance of these buildings should be obtained, for example, via an IDC tourism grant.

8.5.3.4 Eco-conservation areas

- The extension of the nature reserve should be investigated.

8.5.3.5 Special challenges

- Carefully investigate institutional options for Elim taking into account all long term implications including land reform, equity sharing and mentorship options in a wide variety of agricultural, craft and tourism activities;
- Review pros and cons of formalising individual tenure with respect to legal constitution of settlement and long term impact on the community's local economy employment and benefits such as retirement.

8.5.3.6 New Development Areas

- Two new development areas are identified to the north and south of the village – (a) 7.5ha, (b) 6.6ha;
- Guidelines for the development of these areas should be based on those currently in force for the existing settlement but modified to enable the use of off-grid technologies, rainwater harvesting, solar hot water heating, etc.;
- A suitable communal housing subsidy that also allows for architectural control should be identified with the Provincial Housing Department and the Department of Rural Development and Land Reform.
- Housing shortages should be addressed using innovative eco-design principles (very similar to existing construction methods) and options for accessing subsidies on non-title land (e.g. communal subsidy schemes (CPA – DLA).

8.3.5.7 Urban Edge

- See Figure 8.5.3.1.

8.5.3.8 Heritage Areas

- Support existing heritage area and guidelines.

8.5.3.9 Economic linkage areas

- Install periodic market place at suitable location;
- Investigate establishing an emerging farmer incubator at Elim as proposed in the Area Based Plan with Department of Agriculture, Department of Land Affairs and Agri-Overberg.

8.5.3.10 Services

- To follow.

8.5.3.11 Transport

- Promote tarring of road to Gansbaai as a high priority.

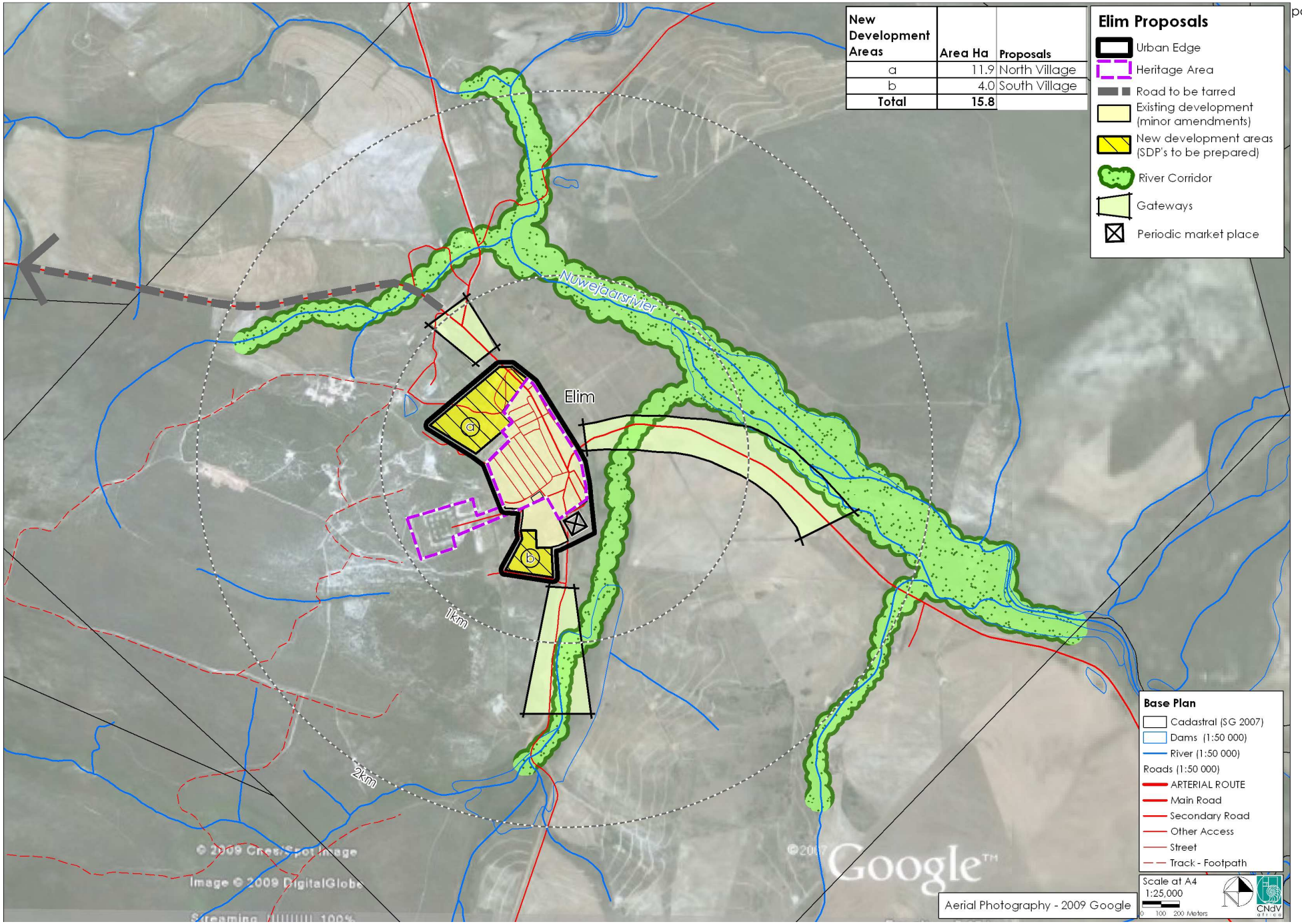


Figure 8.5.3.1 Elim : Proposals

8.6 PROTEM

8.6.1 ANALYSIS, see Figure 8.6.1.1

8.6.1.1 Background

Protem is a rural hamlet west of the R317 between Stormsvlei and Bredasdorp. Its location was not determined by suitability for agriculture but as the most convenient point to provide agricultural support services mainly grain storage. It developed around a grain depot and storage silos probably in the early part of the previous century. It contains tertiary rural service centre activities including a shop, primary school and clinic served on a periodic basis.

There is a small residential township on freehold erven and larger residential buildings occupied by managers or tenants at the grain depot and railway station.

8.6.1.2 Natural Systems

- ***Topography***

Protem is situated on a watershed or high point in the rolling topography of the Ruens.

- ***Rivers and water***

Various tributaries flow in a radial direction from Protem into the Sout and Klein Sout Rivers.

- ***Vegetation and land cover***

Vegetation in the hamlet comprises mainly exotic species including pine and eucalyptus trees. To the west there is a significant renosterveld remnant whereas land to the south and east is used for grain farming.

8.6.1.3 Socio-economic trends

Protem is a marginal settlement providing agricultural (grain storage) and primary government services, school and health to the surrounding community. There are a few middle class residents providing accommodation services and low income residents, either providing unskilled labour to the service activities or to surrounding farms.

This sector of the population appears to be growing, some are living in informal dwellings and there is concern regarding its housing options.

8.6.1.4 Layout, functionality and built form

- ***Layout***

The settlement has not been laid out according to a plan but around the location of its three core activities, grain storage, government services and the rail station.

- ***Functionality***

Because the settlement is so small with not more than 500m between its furthest point it functions easily within walking distance.

- ***Built form***

The buildings in the hamlet reflect both their function and the era in which they were built. The cathedral-like scale of the grain silos massively dominate the other buildings which include Victorian and Edwardian rail station and houses, through to the 1960s and 70s.

8.6.1.5 Urban Development Trends

- Declining original economic activities, especially rail;
- Increasing presence of marginal groups, i.e. farm workers and others in informal housing.

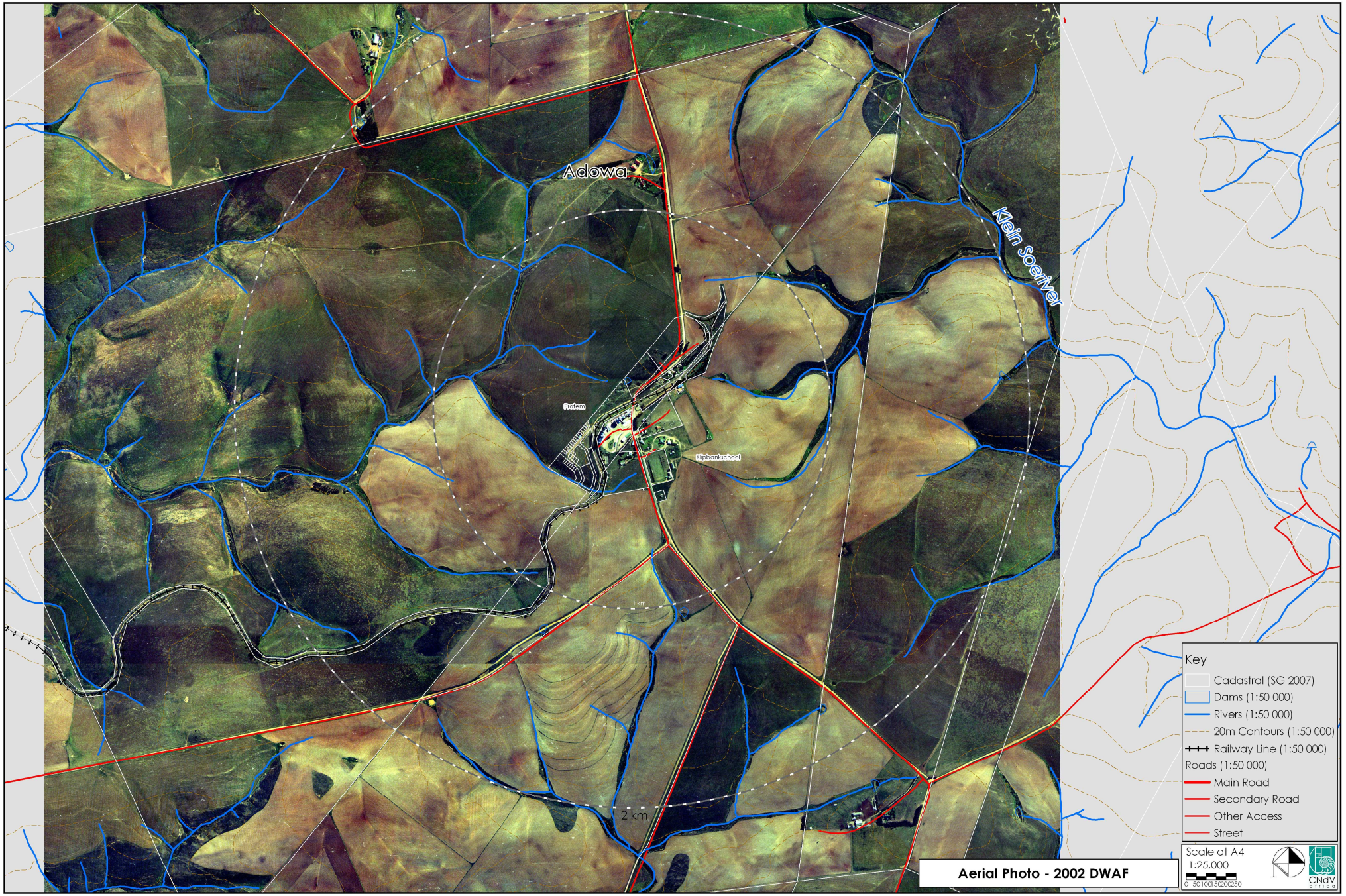


Figure 8.6.1.1 Protem

8.6.2 SYNTHESIS, see Figure 8.6.2.1

Protem is a vulnerable settlement:

- It is too small to offer a comprehensive range of urban services and so residents have to travel to Bredasdorp or Caledon;
- It is susceptible to technological change in that road transport is taking over from rail making many of these activities and buildings redundant;
- The NSDP specifically cautions against making economic infrastructural investments (civil services, housing) into such marginal settlements, especially while backlogs remain in larger settlements with more economic and employment potential. These economic and policy trends require innovative proposals for Protem's increasing number of marginal residents.

Even if the NSDP's guidance was not to be followed and economic infrastructure including housing and services were installed in Protem the Municipality is likely to find itself in serious financial difficulties regarding arrears and having to neglect other high priority projects elsewhere.

Protem's future development would need to be largely self-sustaining and not dependent on significant local, provincial or national government financial support although they could play a role in **facilitating** and **marketing**.

There would appear to be two main opportunities for Protem:

- As a middle income retirement centre; and,
- As an agri-village developed with support of Department of Rural Development and Land Reform.

In both instances the services infrastructure required to support developments from these initiatives would have to be self-sustaining, i.e. off-grid and not add to the local Municipality's existing technical and financial burdens.

The potential economic demand that could be stimulated by these two initiatives could be supported by a periodic services market supported by the coordinated delivery of a number of mobile services including pension payouts, Department of Home Affairs registrations, library and clinic.

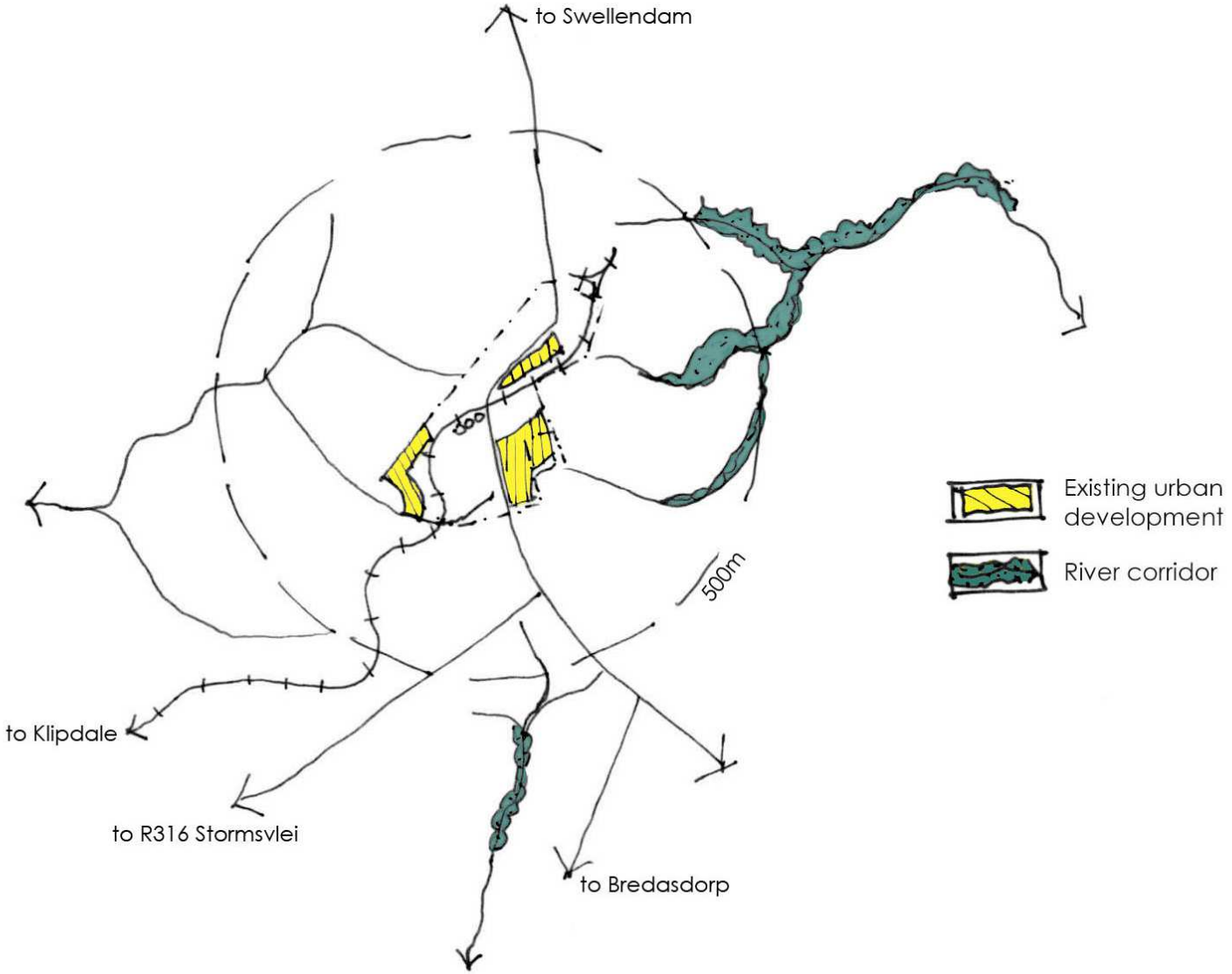


Figure 8.6.2.1 Protem : Synthesis

8.6.3 PROPOSALS, see Figure 8.6.3.1

8.6.3.1 Existing Development

- Permit 2nd dwellings and subdivisions according to heritage, architectural and urban design guidelines as appropriate.

8.6.3.2 Riversides/ Ecological Corridors and Biodiversity

- There should be ecological set back zones declared along the river banks in which there should be no ploughing nor urban development;
- These lines should be determined by an aquatic ecologist and are likely to be between 10 m and 30 m from the surveyed banks of the river depending on the conditions.
- Any new development in biodiversity sensitive areas should be subject to an impact assessment. Fine-scale planning maps of CapeNature should be consulted in this regard.

8.6.3.3 Main streets

- The proposed periodic market should be located at a strategic intersection accessible to residents and visitors;
- Higher order activities such as shops and office buildings should be located on the main street network.

8.6.3.4 New Development Areas

- One new development area (a) is proposed for a site and service scheme providing security of tenure and off-grid services. (NSDP does not permit installation of economic infrastructure in areas of low economic growth potential.)

8.6.3.5 Urban Edge

- See Figure 8.6.3.1.

8.6.3.6 Services

- Suitable off-grid services technologies that can be used on their own or in conjunction with existing bulk services as back-up should be investigated in order to facilitate housing development.

8.6.3.7 Transport

- N/A

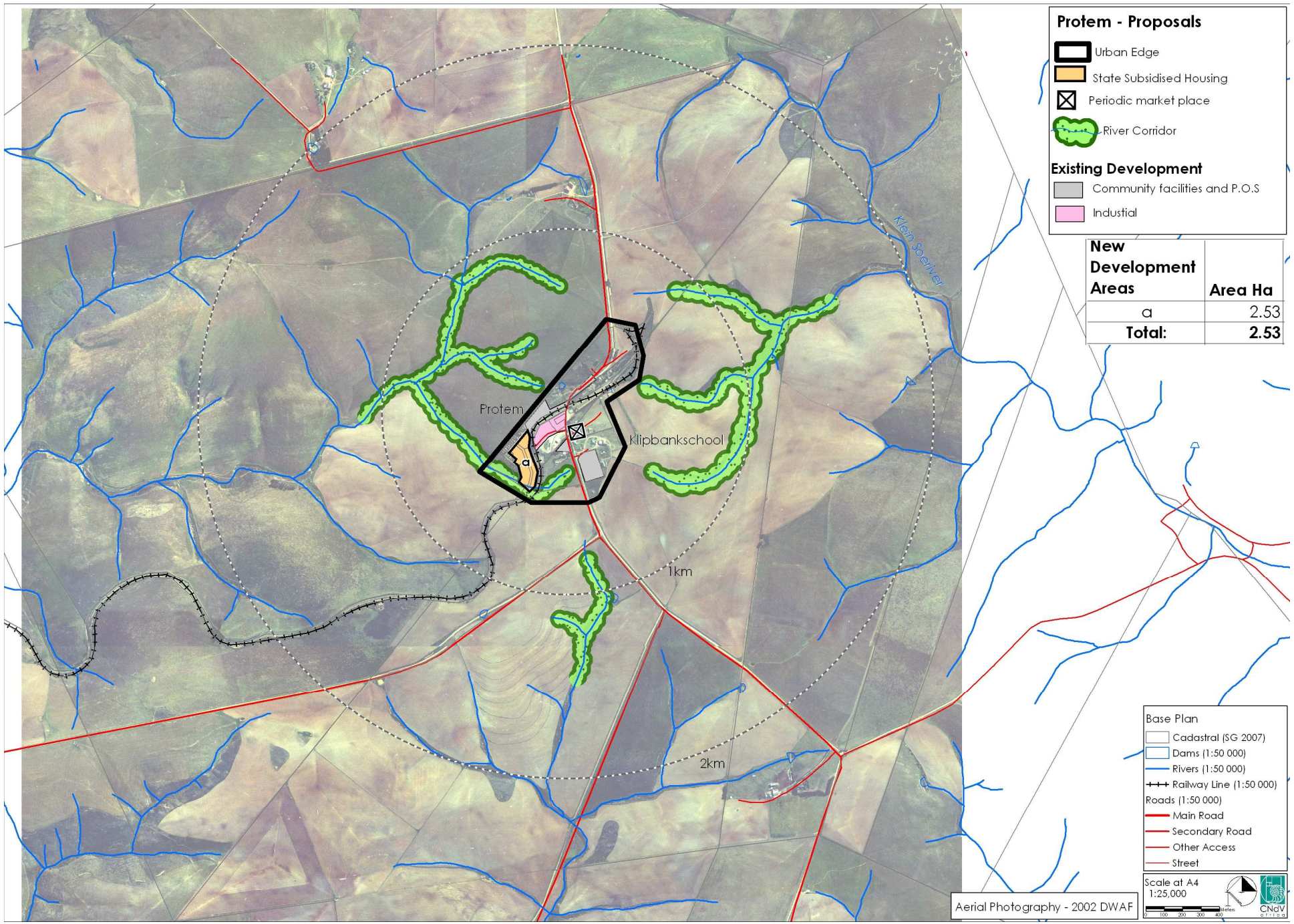


Figure 8.6.3.1 Protem : Proposals

8.7 KLIPDALE

8.8.1 ANALYSIS, see Figure 8.7.1.1

8.7.1.1 Background

Klipdale is a small rural settlement developed around grain silos and a rail siding to serve surrounding grain farmers, probably developed in the early 1900s – some of the station buildings are Victorian or Edwardian in design.

8.7.1.2 Natural Systems

- ***Topography***

Situated in a gently sloping river valley in the undulating hills that characterise the Ruens.

- ***Rivers and water***

Served by the Sout River which is joined by a number of tributaries at Klipdale.

- ***Vegetation and land cover***

There are mature eucalyptus trees in the village and the surrounding countryside has mostly been cleared for farming activities. There are some small remnants of riparian vegetation along the river banks but this is generally inadequate with regard to protecting water quality and quantity.

8.7.1.3 Socio-economic trends

Klipdale serves a limited role as an education centre to surrounding farm children and a modern private school, Ruens College, has been recently developed there. It is also served by a mobile clinic service. There is a small shop and post office.

8.7.1.4 Layout, functionality and built form

- ***Layout***

Generally ad-hoc with residential buildings clustered around their functional zone, e.g. the silos, fuel depot, rail station and schools.

- ***Functionality***

Except for Ruens College the settlement is only about 700m at its furthest extent and so functions easily within walking distance.

- ***Built form***

There is a wide variety of buildings that reflect the era in which they were built and their function. The settlement generally exudes a rural charm.

8.7.1.5 Urban Development Trends

Has been identified as a possible location for an agri-village serving surrounding farm labourers, however, does not comply with investment location criteria in terms of the NSDP.

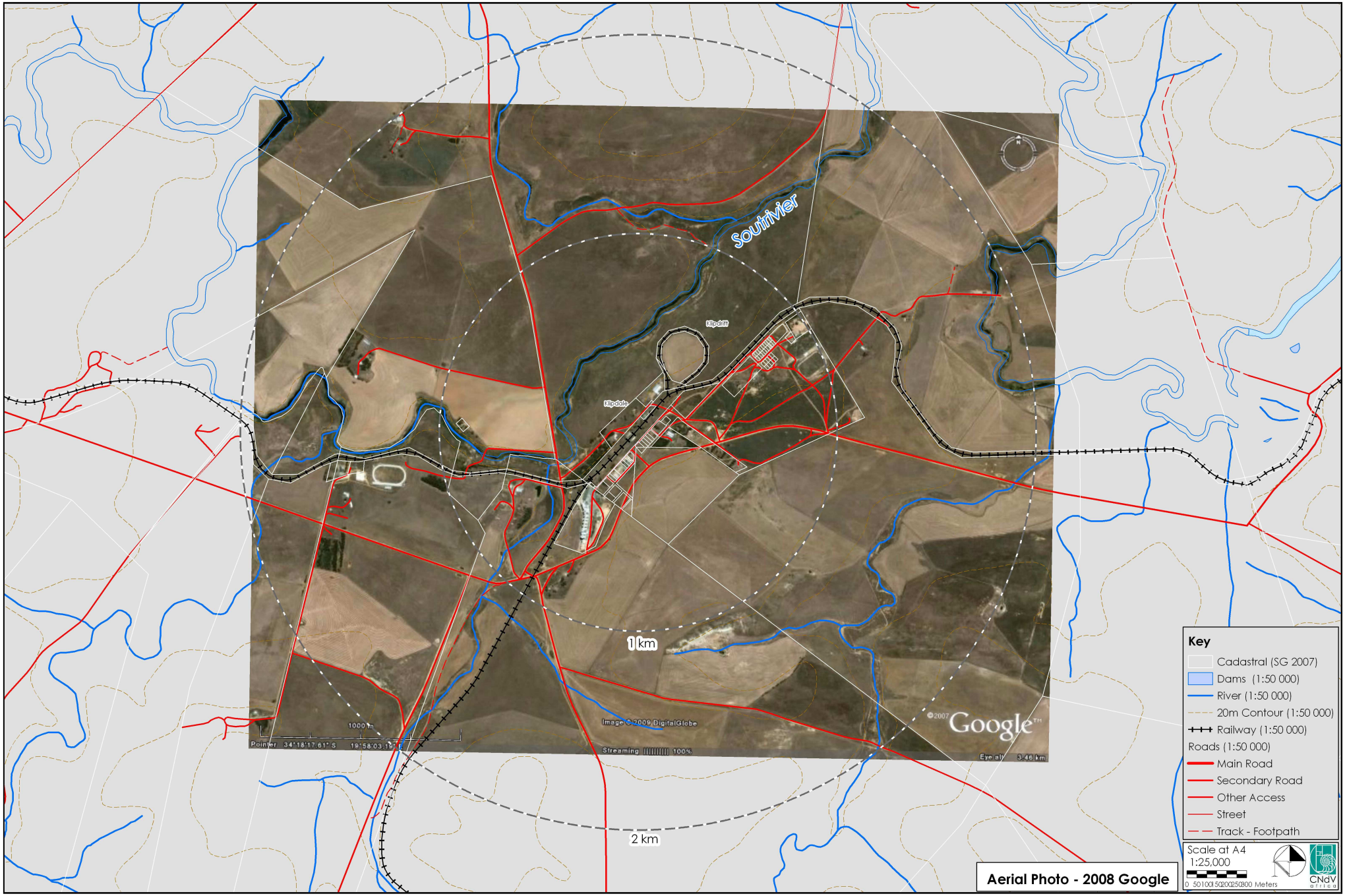


Figure 8.7.1.1 Klipdale

8.7.2 SYNTHESIS, see Figure 8.7.2.1

The relatively recent development of the Ruens College suggests that if a new small settlement was to be considered outside of the current pattern of towns and villages Klipdale's location offers some advantages.

However, like Protem, Klipdale's small size and remote location means that it should not be a priority economic investment centre for bulk services infrastructure and low income housing using public funds while backlogs remain in centres with greater economic and employment potential.

This means that more innovative approaches to off-grid services and promoting local demand threshold are required.

Like Protem, there would appear to be two main opportunities for Klipdale:

- As a middle income retirement centre; and,
- As an agri-village developed with support of Department of Rural Development and Land Reform.

In both instances the services infrastructure required to support developments from these initiatives would have to be self-sustaining, i.e. off-grid and not add to the local Municipality's existing technical and financial burdens.

The potential economic demand that could be stimulated by these two initiatives could be supported by a periodic services market supported by the coordinated delivery of a number of mobile services including pension payouts, Department of Home Affairs registrations, library and clinic.

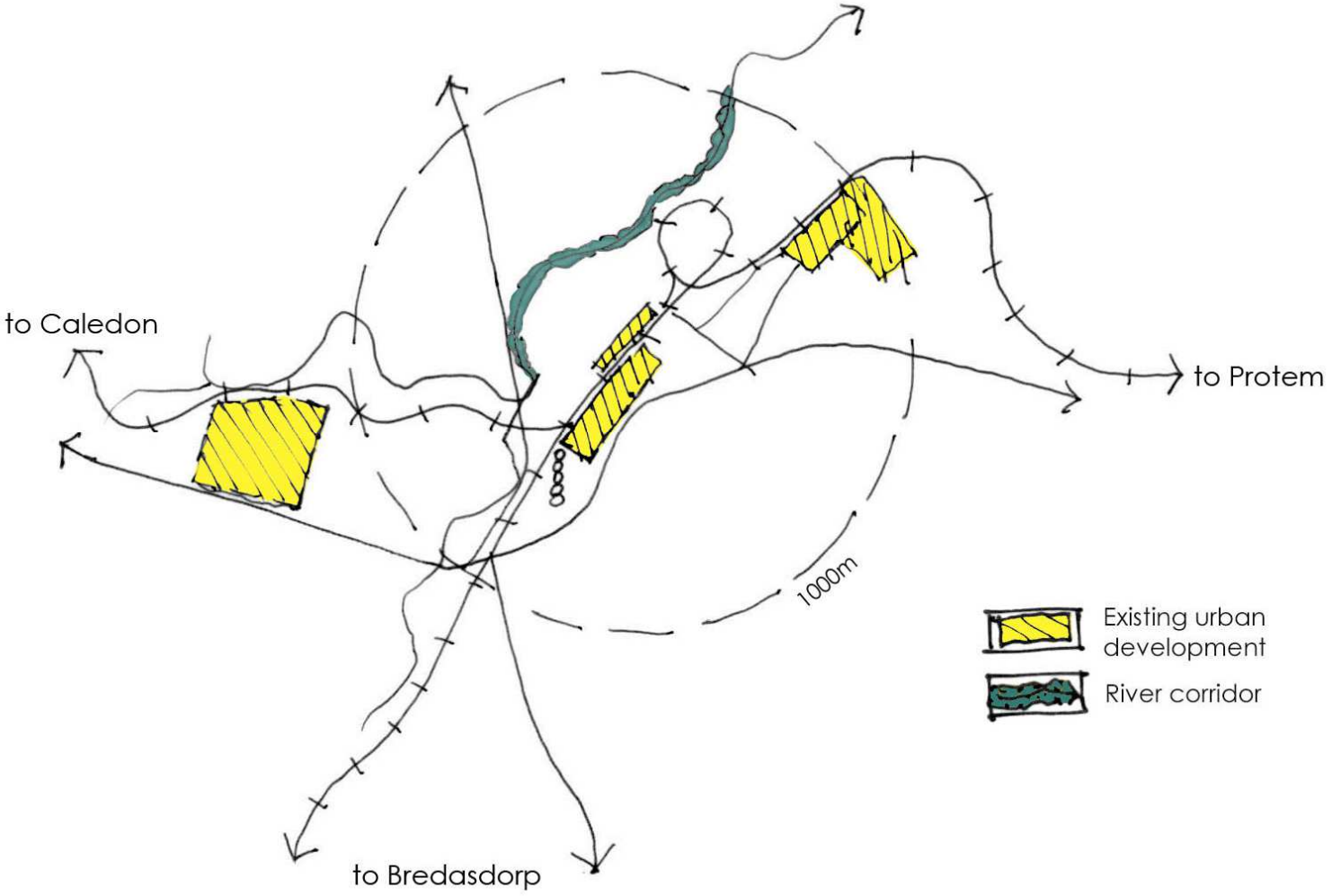


Figure 8.7.2.1 Klipdale : Synthesis

8.7.3 PROPOSALS, see Figure 8.7.3.1

- ***Existing Development***
  - Permit 2nd dwellings and subdivisions according to heritage, architectural and urban design guidelines as appropriate.

- ***Riversides/ Ecological Corridors and Biodiversity***
  - There should be ecological set back zones declared along the river banks in which there should be no ploughing nor urban development;
  - These lines should be determined by an aquatic ecologist and are likely to be between 10 m and 30 m from the surveyed banks of the river depending on the conditions.
  - Any new development in biodiversity sensitive areas should be subject to an impact assessment. Fine-scale planning maps of CapeNature should be consulted in this regard.

- ***Main streets***
  - The proposed periodic market should be located at a strategic intersection accessible to residents and visitors;
  - Higher order activities such as shops and office buildings should be located on the main street network.

- ***New Development Areas***
  - A single new development area is identified which should be developed according to a site development plan based on the principle of the socio-economic gradient, see Section 3.4.

- ***Urban Edge***
  - See Figure 8.7.3.1.

- ***Services***
  - Suitable off-grid services technologies that can be used on their own or in conjunction with existing bulk services as back-up should be investigated in order to facilitate housing development.

- ***Transport***
  N/A

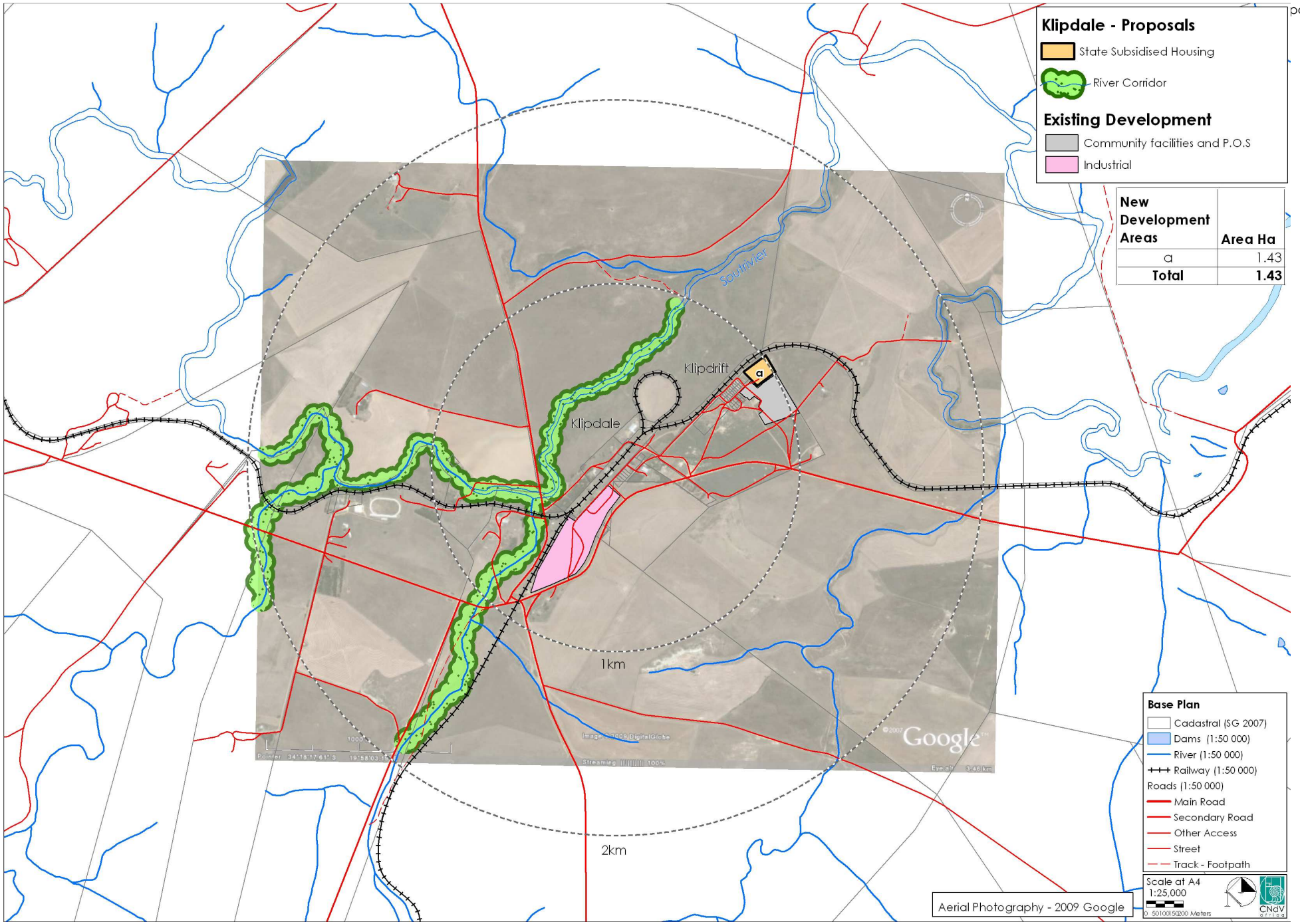


Figure 8.7.3.1 Klipdale : Proposals

9 IMPLEMENTATION: SUMMARY OF PROJECTS

The following are extracts of projects identified in the SDF. See also section 2.4.2 for a summary for the IDP projects.

No.	Project Name	Project Description	Responsible Parties	Relevant Implementation Plan	Costs (Rs) (estimated)	Timing	Comment
9.1	**SETTLEMENTS AND URBAN INFRASTRUCTURE**						
9.1.1	Architectural and Urban Design Guidelines	• Prepare an architectural, urban design and landscaping frameworks for main roads, town centre, historical cores and gateway areas for all the settlements.	CAM HWC	SDF LUMS LED Tourism	250 000	6 months	Should have strong economic benefits angle
9.1.2	Gateway and main streets upgrading	• Initiate the landscaping and treatment of the main roads and gateways in all the settlements.	CAM	Landscape Master Plan Infrastructure Plan	500 000	1 year	Master plan to working drawing and costing stage but not tender documents
9.1.3	Park gateways	• Encourage and prepare guidelines for easily identifiable entrance portals for the park. (Discuss with SANParks)	CAM SANParks	Landscape Master Plan	100 000	6 months	
9.1.4	Densification strategy	• Prepare a densification strategy for the towns.	CAM	SDF sector Plan Infrastructure Plan Transport Plan	500 000	1 year	Should link with 9.1.1
Bredasdorp							
9.1.5	Ou Meule Road upgrading	• Tarring of gravel portion of Ou Meule Road to R319.	CAM Prov Dept T&PW	Transport Plan	2m	1 year	Should take into account 9.1.1
9.1.6	Bredasdorp Malgas Road	• Tar road between Bredasdorp and Malgas.	CAM Prov Dept T&PW	Transport Plan		5 years	
9.1.7	Bredasdorp Market and PT Interchange	• Investigate the establishment of an informal market and taxi rank between Church and Lang streets along Recreation Street.	CAM Prov Dept T&PW	Transport Plan	250 000	6 months	Feasibility study to costing – include landscaping
9.1.8	Bredasdorp GAP housing projects	• Encourage development of or /put out to tender the GAP Housing Sites, namely: sites D, F, G and H.	CAM DHS	HSP		2 years	GAP housing land should be made available at little or no cost
Napier							
9.1.9	Napier GAP housing	• Put out the following site to tender for GAP Housing: the remainder or Site A2, Sites C and D.	CAM DHS	HSP		2 years	GAP housing land should be made available at little or no cost
9.1.10	Napier BNG housing	• Investigate / encourage the development of Site B for BNG Housing.	CAM DHS	HSP		2 years	GAP housing land should be made available at little or no cost

No.	Project Name	Project Description	Responsible Parties	Relevant Implementation Plan	Costs (Rs) (estimated)	Timing	Comment
9.1	**SETTLEMENTS AND URBAN INFRASTRUCTURE**						
Struisbaai							
9.1.11	Struisbaai Market	• Decide on the location and erect a periodic and informal market along the main road.	CAM	LED	1m	2 years	Should operate as a Saturday morning market as well as a few permanent stall holders
9.1.12	New Struisbaai beach	• Initiate a study to confirm the suitability of a new beach area along the eastern coast of the town.	CAM	SDF/LED/Tourism	300k	1 year	Will require coastal engineers and coastal set back line specialists. Coastal regulations to be taken into account
9.1.13	Coastal trails	• Investigate the establishment of walking trails along the coast and inland routes.	CAM	EMF, Tourism	250k	1 year	Feasibility study including sketch plans and construction costs and funding sources
9.1.14	Hotagtersklip conservation and tourism plan	• Prepare a detailed site development/ precinct plan for the Hotagterklip area to enhance its historical and gateway value.	CAM HWC	LED Tourism Heritage	250k	1 year	Should optimise economic as well as heritage opportunities. Link with project 9.1.7 above
L'Agulhas							
9.1.15	L'Agulhas walking trail	• Investigate the location of walking trails along the beach dunes.	CAM	EMF , Tourism	See 9.1.9 above	6 months	See 9.1.9 above
9.1.16	Wilderness gateway: Agulhas park	• Tar alternative L'Agulhas wilderness route between Struisbaai and L'Agulhas.	CAM SANParks	EMF, Tourism , Transport	300k	1 year	Care must be taken that any development proposals in small holdings do not detract from sense of wilderness this entrance is trying to establish
Suiderstrand							
9.1.17	Suiderstrand Slipway	• Prepare guidelines for fishing boat launching.	CAM MCM	Transport	100k	6 months	Participation of bakkie fishers required
Arniston							
9.1.18	Arniston link road	• Construct new link road.	CAM	SDF, transport	3m	2 years	Road must be carefully designed as a landscaped cobbled street using labour based methods rather than conventional pre-cast concrete kerbing and asphalt
9.1.19	Arniston gateway	• Initiate new gateway development through a detailed site development/ precinct plan and feasibility study	CAM Prov T & PW Denel	SDF, Transport, LED, Tourism, Heritage	100k	6 months	Arniston needs a proper gateway which can also provide economic opportunities Need to acquire/lease land from Denel
9.1.20	Arniston housing sites	• Investigate the development potential and put out to tender (development or encourage the development) of Sites A, C and D (assuming all are Municipal owned).	CAM DHS, possibly private developers	SDF, HSP, Heritage	500k (design only)	12 months	Only GAP and BNG housing should be implemented, no site and service. Guidelines should be applied to BNG and GAP house designs

No.	Project Name	Project Description	Responsible Parties	Relevant Implementation Plan	Costs (estimated)	Timing	Comment
9.1	**SETTLEMENTS AND URBAN INFRASTRUCTURE**						
Elim							
9.1.21	Elim market	• Creation of Informal Market in appropriate location. This could include periodic service centre for rendering mobile Thusong / MPCC services	CAM, management committee	LED, SDF	250k	6 months	Become Saturday morning market, should not compete with existing permanent business. Could become part of a network of properly managed craft and food markets throughout CAM
9.1.22	Elim housing	• Encourage the development of Sites A and B.	CAM management committee	HSP, SDF		5 years	As land is privately owned most subsidy options are closed
9.1.23	Elim – Gansbaai road	• Tar road between Elim and Gansbaai.	CAM, Overstrand municipality Prov Dept T&PW	SDF, Transport plan		5 years	This project has been costed, designed and placed on provincial construction schedule a number of times.
Protem							
9.1.24	Protem off grid S&S scheme	• Investigate the development potential and put out to tender (development or encourage the development) of A, (assuming all at Municipal owned) for sustainable human development settlements (off grid technologies).	CAM	SDF, HSP			To be developed on ad-hoc basis as and when residents are ready
Klipdale							
9.1.25	Klipdale off grid S & S scheme	• Investigate the development potential and put out to tender (development or encourage the development) of Sites A, (assuming at Municipal owned) for sustainable human development settlements (off grid technologies).	CAM	SDF, HSP			To be developed on ad-hoc basis as and when residents are ready
9.2	**NEW URBAN DEVELOPMENTS**						
9.2.1	Municipal boundary realignment	• Initiate the realignment of the municipal boundary around the De Hoop entrance including the site of the proposed agri-village including to the east along the Breede River	CAM, Swellendam Mun. Demarcation Board	SDF		2 years	
9.2.2	De Hoop Agri-village	• Investigate the establishment of an agri-village along the principles of a sustainable human settlement at De Hoop entrance to house reserve staff who would otherwise have to commute to Bredasdorp.	CAM, HSP	SDF, HSP	500k	1 year	

No.	Project Name	Project Description	Responsible Parties	Relevant Implementation Plan	Costs	Timing	Comment
9.3	**TRANSPORT**						
9.3.1	Rail revitalisation	• Investigate the establishment of rail service between Cape Town and Bredasdorp.	CAM, Transnet, Prov Dept T & PW	SDF, Transport plan		ongoing	Negotiations already started
9.3.2	CAM NMT study	• Prepare a non-motorised transport plan for and between the different settlements in the municipality.	CAM, Prov Dept T&PW	SDF, Transport plan	R250k	6 months	Opportunity for tourism and commuter cycling along main routes in municipality
9.3.3	Bredasdorp airport study	• Review report on potential of airbase to be converted into an airport.	CAM, ACSA	SDF, transport plan		ongoing	Parallels with Upington airport to be investigated
9.3.4	Bredasdorp Station upgrade	• Investigate the use of the train station building in Bredasdorp as a tourism facility.	CAM	SDF, Heritage, LED	R250k	6 months	
9.4	**BIODIVERSITY CONSERVATION AND AGRICULTURE**						
9.4.1	CAM farms and biodiversity study	• Initiate a project for the promotion of agri-tourism (including wine farms).	CAM, Dept of Agric, Tourism	SDF, Heritage, Bio-diversity fine scale plan	350k	12 months	
9.4.2	CAM stewardship and conservancies program	• Initiate the establishment of stewardship programs/ conservancies for farms with renosterveld and other sensitive habitats.	CAM, Dept of Agric, SANParks, CapeNature	SDF, Biodiversity fine scale plan	250k	12 months	Should include evaluation of subsidy and incentive options vs impact on municipal income from loss of agricultural rates
9.4.4	Artisanal fishers project	• Review rights to marine conservation areas.	CAM, MCM	LED		6 months	Investigate opportunities for bakkie line fishermen
9.4.5	CAM wetlands conservation program	• Spearhead or initiate the proclamation of wetlands on properties outside of formal conservation.	CAM, CapeNature, DWAF, SANParks	SDF, EMF		12 months	Investigate strategy to protect wetlands outside of conservation areas
9.4.6	River protection program	• Prepare guidelines for agricultural development, fencing, ploughing, roads alongside riparian zones.	CAM, Dept of Agric, DWAF	SDF, EMF		12 months	Investigate strategies to prohibit ploughing and urban development within river set back corridors

9.5 HUMAN SETTLEMENT PROJECTS

9.5.1 Alignment with Human Settlement Plan

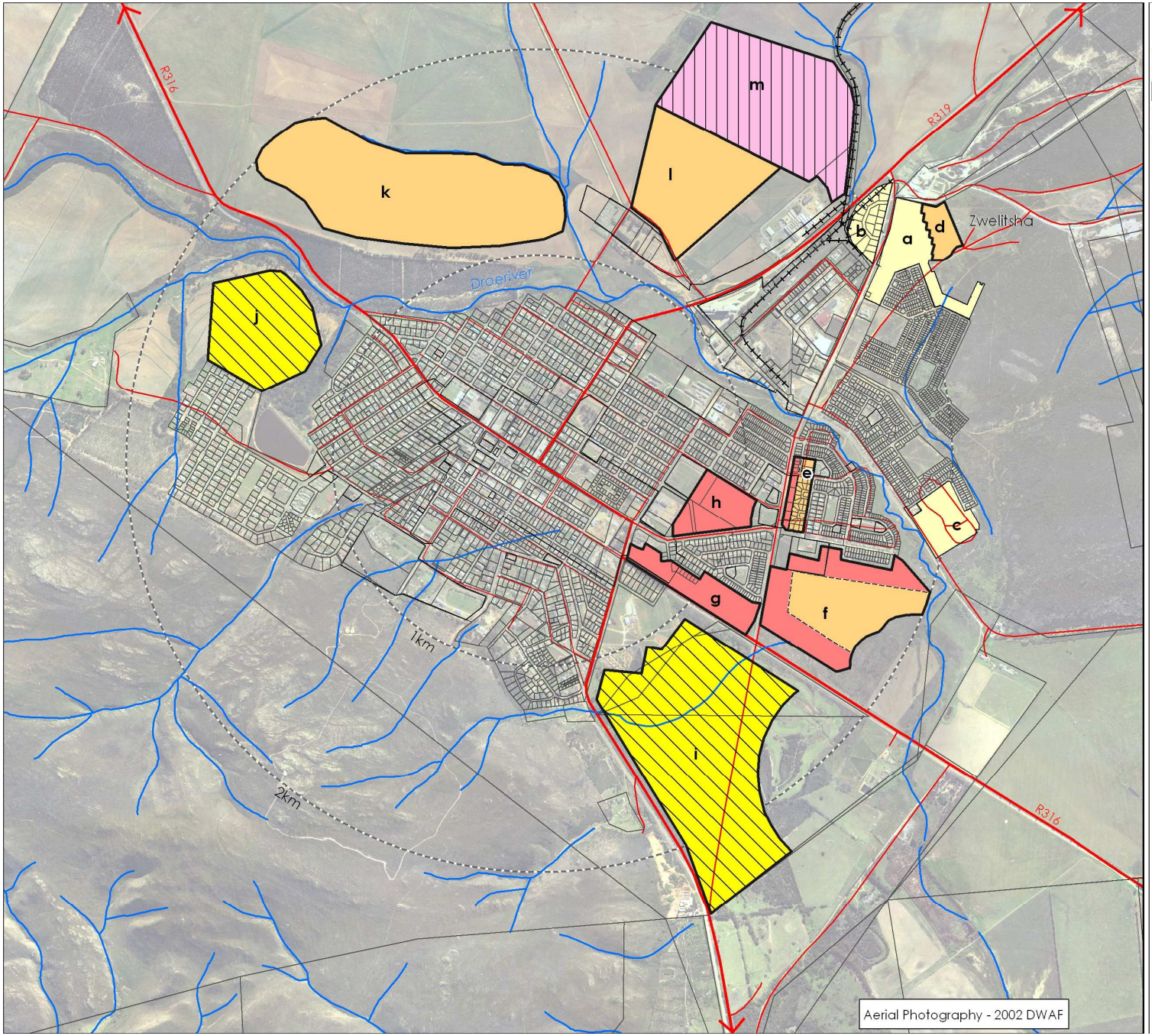
9.5.1.1 Bredasdorp

Site	BNG		GAP		High		Total	Comment
	Area (ha)	Units	Area (ha)	Units	Area (ha)	Units	Units	
Need	**75.15**	**2308**	**3.44**	**96**			**2404**	
Site A	10.42	355					355	Already in layout approval stage
Site B	4.49	251					251	251 units already constructed
Site C	6.96	184					184	184 units already constructed
Site D	3.33	125					125	TRA - full serviced erven, no houses for non-qualifiers, are on the waiting list
Site E	2.52	95	1.25	35			130	Gap and BNG housing in intensification corridor, are some commercial activities
Site F	14.77	554	14.77	414			967	Big portions sensitive; may require a detailed study - portion available (Gap and BNG)
Site G			8.78	246			246	Gap housing abutting existing higher income housing
Site H			8.02	225			225	Gap housing abutting existing higher income housing
Site I					72.44	1159	1159	Golf course/ High income, confirm EIA, bulk services
Site J					24.01	384	384	Retirement village/ High income
Site K	60.06							Industrial, confirm bulk services (possibly 2252 units)
Site L	27.87	1045					1045	relocate show ground/ land swap, confirm EIA, bulk services
Site M	46.80							industrial
Potential	**177.22**	**2608**	**32.82**	**919**	**96.45**	**1543**	**5071**	
Balance	**102.07**	**301**	**29.38**	**823**	**96.45**	**1543**	**2667**	

Sub-total Area: Residential	259.69	ha
Sub-total Area: Industrial	46.80	ha
Total Area:	**306.49**	**ha**

ASSUMPTIONS

1 Total Need: 2404 units from draft HSP March 2012
2 Need units per income category (BNG, Gap, High) derived from 1 using income distribution split (Provincial Treasury Socio Economic Profile 2006)
3 Need area derived from 2 based on efficiency factors: 60% for BNG, 70% for Gap and 80% for High income housing)
4 Sites as per CNdV Draft Broad Spatial Proposal for Bredasdorp- Figure 6.2.4
5 BNG units calculated at 60% of site area divided by 160sqm plot area
7 GAP units calculated at 70% of site area divided by 250sqm plot area
8 High Income units calculated at 80% of site area divided by 500sqm plot area



Bredasdorp Housing Proposals

- High income development areas (SDP's to be prepared)
- GAP Housing
- State Subsidised Housing
- Industrial
- Residential

	New Development Areas	Area Ha
Construction	a	10.42
	b	4.49
	c	6.96
Sub-total		**21.87**
1-5 years	d	3.33
	e	3.77
	f	29.55
	g	8.78
	h	8.02
Sub-total		**53.44**
Long-term	i	72.44
	j	24.01
	k	60.06
	l	27.87
	m	46.80
Sub-total		**231.17**
	Total:	**306.49**

Base Plan

- Cadastral (SG 2009)
- River (1:50 000)
- Railway (1:50 000)

Roads (1:50 000)

- Main Road
- Secondary Road
- Other Access
- Street

Scale at A4 1:25,000

0 Meters

Figure 9.5.1.1 Bredasdorp Housing Plan

9.5.1.2 Napier

Site	BNG		GAP		High		Total	Comment
	Area (ha)	Units	Area (ha)	Units	Area (ha)	Units	Units	
Need	**15.76**	**734**	**0.72**	**20**			**754**	
Site A	6.64	250					250	250 units already constructed
Site A2			8.06	226			234	Consider interface with existing GAP, BNG at rear
Site B	14.71	552					552	BNG confirm EIA and bulk services, observe ridge line
Site C			20.72	580			601	Investigate Gap housing, EIA, bulk services - close to industrial?
Site D					19.59	313	333	Investigate Gap housing, EIA, bulk services - smallholding land
Potential	**21.35**	**802**	**28.78**	**806**	**19.59**	**313**	**1991**	
Balance	**5.59**	**68**	**28.06**	**786**	**19.59**	**313**	**1237**	
Total Area:			**69.72**	**ha**				

ASSUMPTIONS

1 Total Need: 504 units from draft HSP March 2012 plus 250 units already constructed and handed over
2 Need units per income category (BNG, Gap, High) derived from 1 using income distribution split (Provincial Treasury Socio Economic Profile 2006)
3 Need area derived from 2 based on efficiency factors: 60% for BNG, 70% for Gap and 80% for High income housing)
4 Sites as per CNdV Draft Broad Spatial Proposal for Napier - Figure 7.2.4
5 BNG units calculated at 60% of site area divided by 160sqm plot area
7 GAP units calculated at 70% of site area divided by 250sqm plot area
8 High Income units calculated at 80% of site area divided by 500sqm plot area

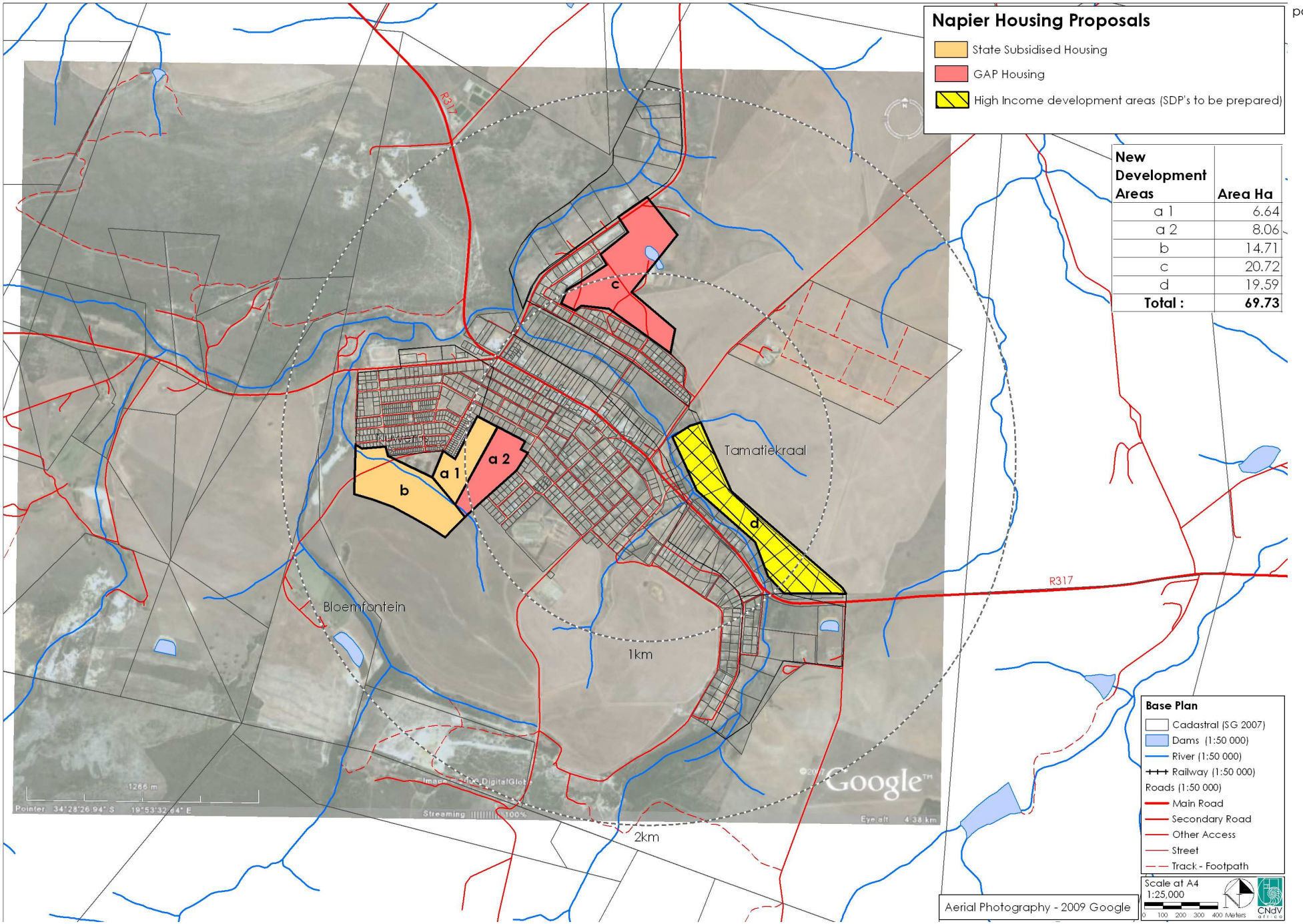


Figure 9.5.1.2 Napier Housing Plan

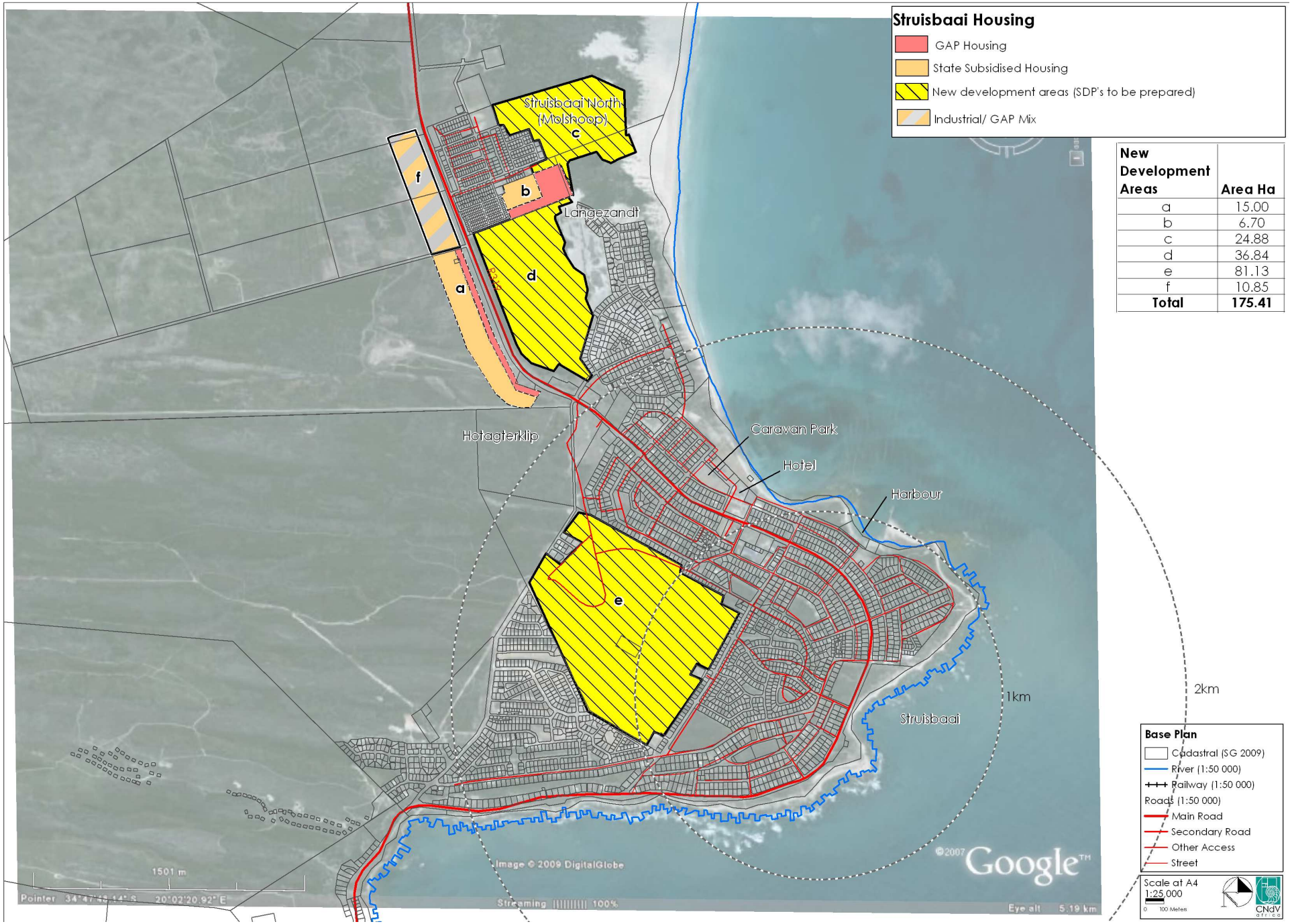
9.5.1.3 Struisbaai

Site	BNG		GAP		High		Total	Comment
	Area (ha)	Units	Area (ha)	Units	Area (ha)	Units	Units	
Need	**12.63**	**559**	**0.58**	**16**			**575**	
Site A	11.80	443	3.20	90			535	BNG in intensification corridor
Site B	2.00	116	2.00	42			160	Currently proposed mixed income project (BNG : 116 and GAP: 42)
Site C	24.90							Tourism development project, possibility for some housing (GAP/ high income)
Site D					36.84	589	626	Undeveloped part of Langezandt to be taken up
Site E	81.13							81,13ha not needed in short term (NBG: 1014; Gap: 757; High: 433)
Site F	7.90		3.00	42				
Potential	**127.73**	**559**	**19.59**	**132**	**36.84**	**589**	**1322**	
Balance	**115.10**	**0**	**19.01**	**115**	**36.84**	**589**	**747**	

Sub-total Area: Residential	176.26	ha
Sub-total Area: Industrial	7.90	ha
Total Area:	**184.16**	**ha**

ASSUMPTIONS

1 Total Need: 404 units from draft HSP March 2012 plus 171 units already transferred
2 Need units per income category (BNG, Gap, High) derived from 1 using income distribution split (Provincial Treasury Socio Economic Profile 2006)
3 Need area derived from 2 based on efficiency factors: 60% for BNG, 70% for Gap and 80% for High income housing)
4 Sites as per CNdV Draft Broad Spatial Proposal for Struisbaai - Figure 8.2.4
5 BNG units calculated at 60% of site area divided by 160sqm plot area
7 GAP units calculated at 70% of site area divided by 250sqm plot area
8 High Income units calculated at 80% of site area divided by 500sqm plot area



New Development Areas	Area Ha
a	15.00
b	6.70
c	24.88
d	36.84
e	81.13
f	10.85
Total	**175.41**

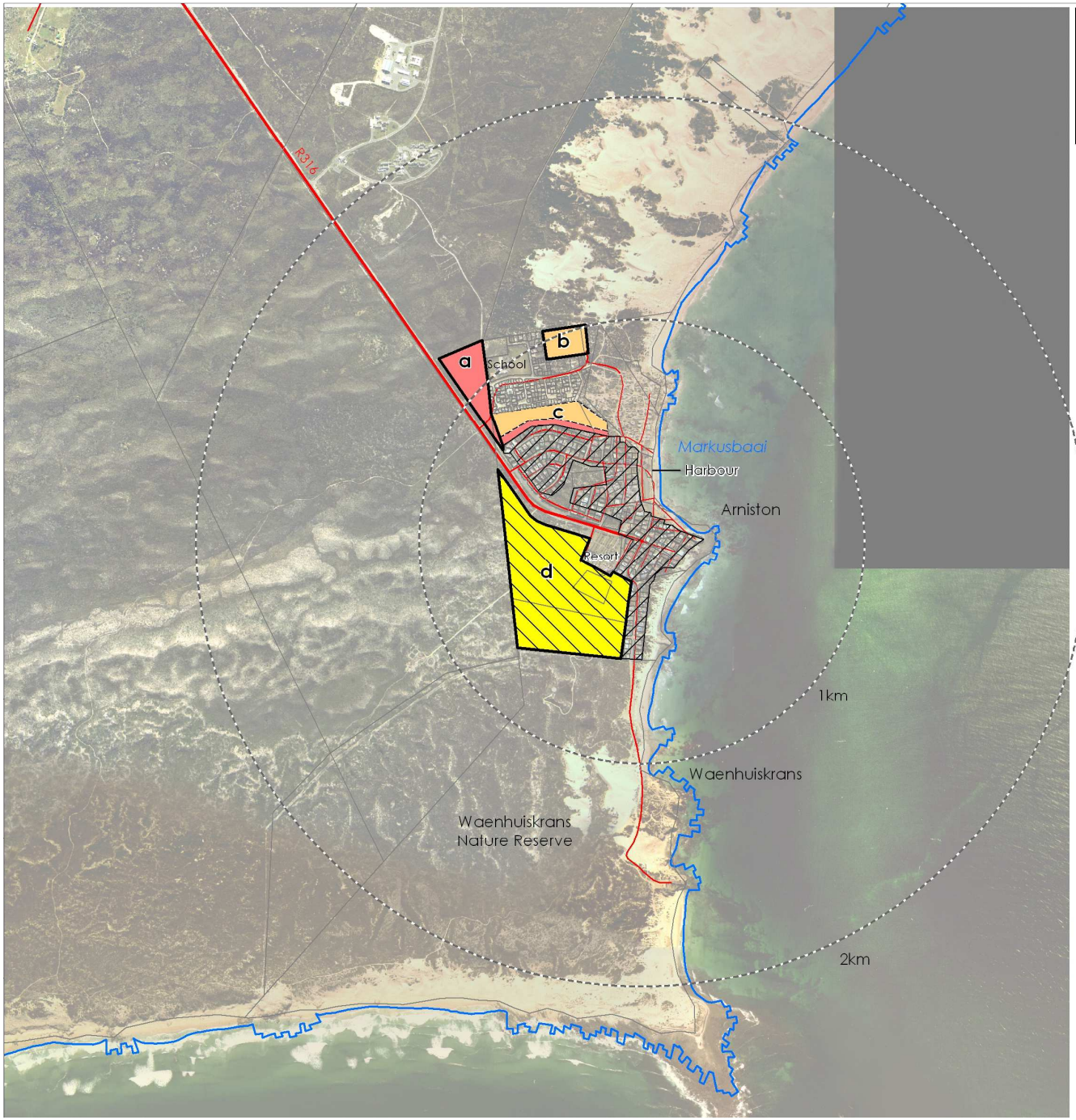
Figure 9.5.1.3 Struisbaai Housing Plan

9.5.1.4 Arniston

Site	BNG		GAP		High		Total	Comment
	Area (ha)	Units	Area (ha)	Units	Area (ha)	Units	Units	
Need	**6.16**	**256**	**0.28**	**8**			**264**	
Site A			4.75	133			138	New intensification gateway development ,check ownership, existing sport fields
Site B	2.45	67						Existing Council housing project
Site C	3.819	118	1.71	48			167	Gap and BNG housing development
Site D	6.03	186	6.03	169	6.03	96	463	Relocate camping site, EIA, bulk services (interface)
Potential	**12.30**	**370**	**12.49**	**350**	**6.03**	**96**	**847**	
Balance	**6.14**	**114**	**12.21**	**342**	**6.03**	**96**	**577**	
Total Area:			**20**	**ha**				

ASSUMPTIONS 19

1 Total Need: 197 units from draft HSP March 2012 Plus 67 units
2 Need units per income category (BNG, Gap, High) derived from 1 using income distribution split (Provincial Treasury Socio Economic Profile 2006)
3 Need area derived from 2 based on efficiency factors: 60% for BNG, 70% for Gap and 80% for High income housing)
4 Sites as per CNdV Draft Broad Spatial Proposal for Arniston - Figure 8.2.4
5 BNG units calculated at 60% of site area divided by 160sqm plot area
7 GAP units calculated at 70% of site area divided by 250sqm plot area
8 High Income units calculated at 80% of site area divided by 500sqm plot area



Arniston Housing Proposals

- State Subsidised Housing
- GAP
- Promote subdivision and second dwellings

New Development Areas	Area Ha
a	4.75
b	2.45
c	5.47
d	27.46
Total	**40.13**

Base Plan

- Cadastral (SG 2009)
- Dams (1:50 000)
- River (1:50 000)
- Railway (1:50 000)

Roads (1:50 000)

- Main Road
- Secondary Road
- Other Access
- Street

Scale at A4 1:25,000

0 100 200 Meters

Aerial Photography - 2002 DWAF

Figure 9.5.1.4 Arniston Housing Plan

9.5.1.5 Protem

Site	BNG		GAP		High		Total	Comment
	Area (ha)	Units	Area (ha)	Units	Area (ha)	Units	Units	
Need	**6.74**	**45**	**0.28**		**0.16**		**45**	
Site A	2.53	95	4.7				100	
Potential	**2.53**	**95**	**4.7**				**100**	
Balance	**-4.21**	**50**	**4.42**		**-0.16**		**50**	
Total Area:			**19.59**	**ha**				

ASSUMPTIONS

1 Total Need: 45 units from draft HSP March 2012
2 Need units per income category (BNG, Gap, High) derived from 1 using income distribution split (Provincial Treasury Socio Economic Profile 2006)
3 Need area derived from 2 based on efficiency factors: 60% for BNG, 70% for Gap and 80% for High income housing)
4 Sites as per CNdV Draft Broad Spatial Proposal for Protem - Figure 7.2.4
5 BNG units calculated at 60% of site area divided by 160sqm plot area
7 GAP units calculated at 70% of site area divided by 250sqm plot area
8 High Income units calculated at 80% of site area divided by 500sqm plot area

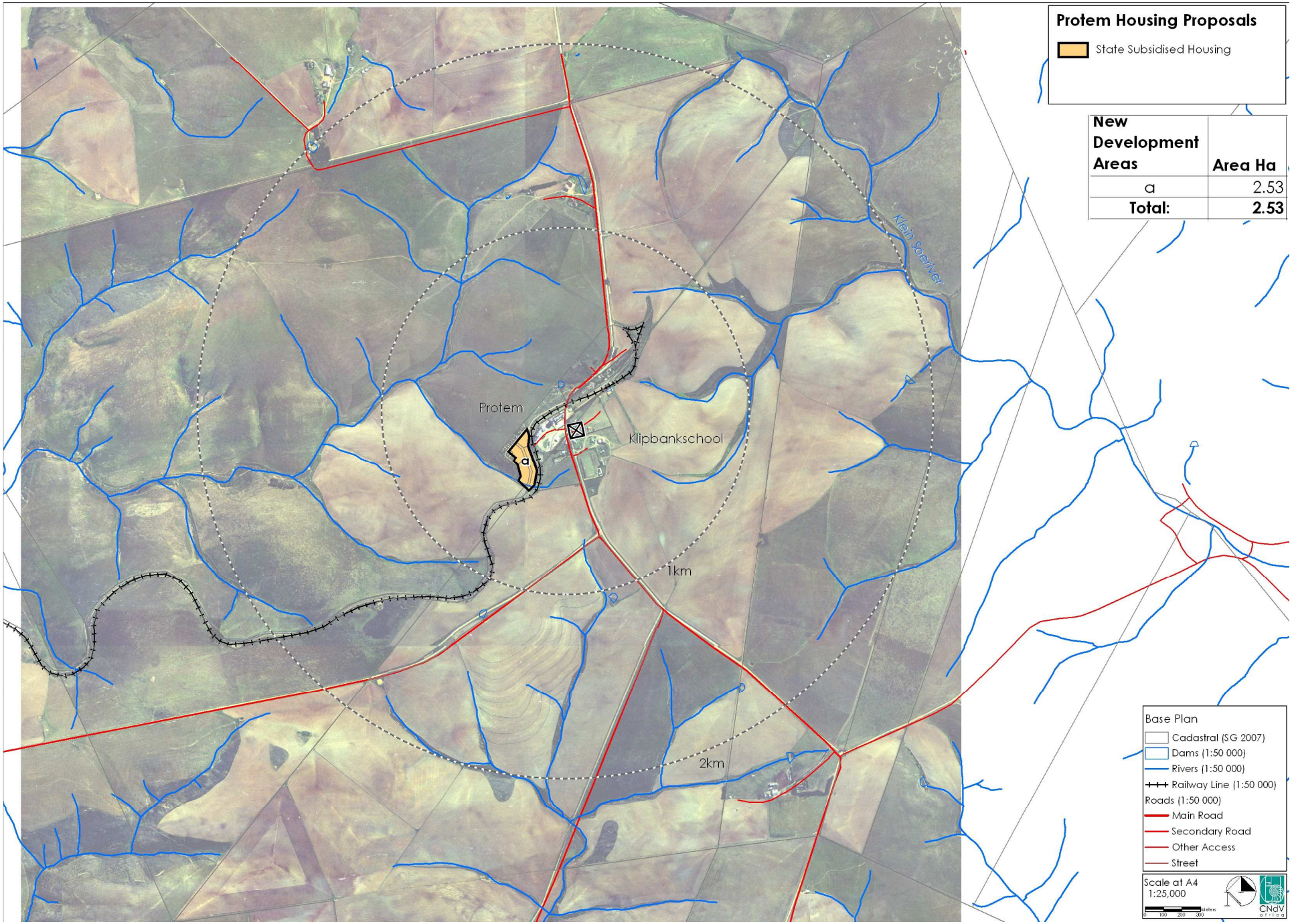


Figure 9.5.1.5 Protem Housing Plan

9.5.1.6 Klipdale

Site	BNG		GAP		High		Total	Comment
	Area (ha)	Units	Area (ha)	Units	Area (ha)	Units	Units	
Need	**0.28**	**33**	**0.19**		**0.08**		**33**	
Site A1	1.43	54					54	
Potential	**1.43**	**54**					**53.625**	
Balance	**1.15**	**21**	**-0.19**		**-0.08**		**20.63**	
Total Area:	**1.43**	**ha**						

ASSUMPTIONS

1 Total Need: 33 units from draft HSP March 2012
2 Need units per income category (BNG, Gap, High) derived from 1 using income distribution split (Provincial Treasury Socio Economic Profile 2006)
3 Need area derived from 2 based on efficiency factors: 60% for BNG, 70% for Gap and 80% for High income housing)
4 Sites as per CNdV Draft Broad Spatial Proposal for Klipdale - Figure 9.2.4
5 BNG units calculated at 60% of site area divided by 160sqm plot area
7 GAP units calculated at 70% of site area divided by 250sqm plot area
8 High Income units calculated at 80% of site area divided by 500sqm plot area

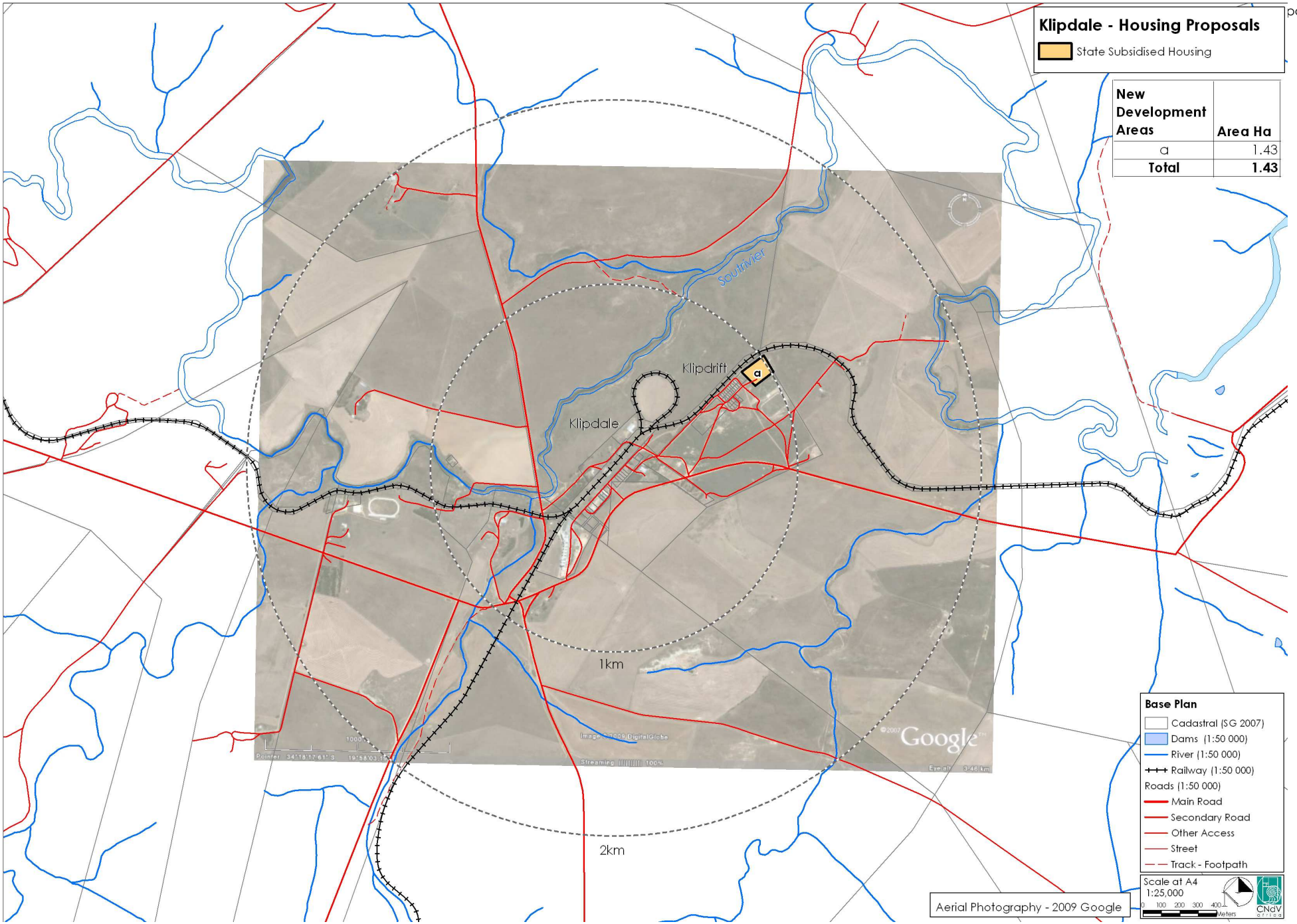


Figure 9.5.1.6 Klipdale Housing Plan

APPENDIX A

Extract from Western Cape Climate Change Strategy

Department of Environmental Affairs
and Development Planning, Western Cape

A climate change strategy and action plan for the Western Cape

This report is the final document. Information contained herein has been reviewed by the Client: the Department of Environmental Affairs and Development Planning, and by the Government of the Western Cape.

FINAL

MARCH 2008

Department of Environmental Affairs
and Development Planning

Western Cape

March 2008

This report was prepared for the Department of Environmental Affairs and Development Planning by OneWorld Sustainable Investments

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This document is available on the Western Cape Department of Environmental Affairs and Development planning website:
www.capegateway.gov.za/eadp

A climate change response strategy and action plan for the Western Cape

Responding to the challenge of climate change and sustainable development in the Western Cape

Prepared for the Department of Environmental Affairs and Development Planning, Western Cape, by OneWorld Sustainable Investments

Note:
This document and the information herein is supported and informed by seven supplementary reports, published in a separate volume as: *The Western Cape Climate Change Strategy and Action Plan Supplementary Report,* by OneWorld Sustainable Investments, for the Western Cape Department of Environmental Affairs and Development Planning.

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A number of focus group meetings were also held with experts in Fisheries, Energy, Air Quality, Disasters and Livelihoods, Communications, Biodiversity, Agriculture and Water. The OneWorld team and consortium members wish to acknowledge the valuable inputs gained from all participants in focus group sessions. Please refer to the *Western Cape Climate Change Strategy and Action Plan Supplementary Report Number 3 (Stakeholder Report)* for a list of people who participated in these sessions.

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Foreword

It is clear that climate change will affect the Western Cape Province.

Climate Change is happening now and is one of the biggest challenges facing the international community. Even with the achievement of significant global greenhouse gas emission reduction targets, there will still be changes to the global climate and to our climate here in the Western Cape. These changes will affect everyone in our community - government, industry, community groups and individuals - and all sections of the community have a part to play in responding to climate change.

To achieve this vision, we need to act now using our existing knowledge. We then need to set out longer-term strategies to continue to improve our understanding of the impacts of climate change. We need to plan and adapt to the expected changes.

The Western Cape has relatively low levels of greenhouse gas emissions when compared to other parts of South Africa, but it is incumbent on us to look for local opportunities to maintain low greenhouse gas emission levels. We will also continue to participate in national policy development and strategies on greenhouse gas mitigation.

For the immediate future, the focus must be on planning to adapt to climate change and its impacts using the best available knowledge.

This Strategy builds on the work already done in the province and sets out our direction now and for the longer term. It sets out the Government's commitment to:

- Leading the response to climate change in partnership with other spheres of government, research institutions, industry and the community
- Planning and adapting now and into the future to minimise possible adverse impacts of climate change and to position the province to take advantage of emerging opportunities
- Focusing on water as our already scarce resource that is extremely vulnerable to climate change impacts
- Developing renewable energy and energy efficiency options and minimising our greenhouse gas emission levels
- Continuing to improve our knowledge of the impacts of climate change
- Informing and involving our industry sectors and the community to ensure they are better able to adapt and respond to the challenges associated with a changing climate.

The Strategy promotes a strategic outlook as well as practical actions, land use and development planning based on a risk management approach and a culture of innovation to capture opportunities. It aligns with the goals established through the Sustainable Development Strategy for the Western Cape and will provide a sound foundation for future climate change responses in the province.

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Abbreviations and acronyms

Abbreviation	Definition
ARC	Agricultural Research Council
BEE	Black Economic Empowerment
BEEH	School of Bio-resources, Engineering and Environmental Hydrology
CBD	Central Business district
CBO	Community Based Organisations
CC	Climate Change
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CITES	Convention on International Trade in Endangered Species
CO_2	Carbon Dioxide
COSATU	Congress of South African Trade Unions
CWDM	Cape Winelands District Municipality
DA	Department of Agriculture
DAPPS	Dynamic Air Pollution Prediction System
DEA&DP	Department of Environmental Affairs and Development Planning
DEAT	Department of Environmental Affairs and Tourism
DFPT	Deciduous Fruit Producers Trust
DME	Department of Minerals and Energy
DOL&H	Department of Local Government and Housing
DOT	Department of Transport
DPSIR	Drivers, Pressures, State, Impacts, Response
DST	Department of Science and Technology
DWAF	Department of Water Affairs and Forestry
EB	Executive Board
EE	Energy Efficiency
ENSO	El Niño-Southern Oscillation
EU	European Union
EUA	European Union Allowances
F gases	Fluorines
FAR	Foundation for Arable Research
G8	Group of 8 Developed Industrial Nations
GCM	General Circulation Models (of the atmosphere)
GDP	Gross Domestic Product
GHG	Green House Gas
GIS	Geographic Information System
GISP	Global Invasive Species Program
GW	Global Warming
GWU	General Workers Union
IAM	Integrated Assessment Model
IAS	Integrated Assessment System
ICCAT	International Commission for the Conservation of Atlantic Tunas
IDP	Integrated Development Plan
IEMI	Integrated Environmental Management Series
IPCC	Inter-Governmental Panel on Climate Change
IPP	Independent Power Producer

ITUF	Independent Trade Union Federation
IVA	Impacts, Vulnerability and Adaptation
LUPO	Land Use and Planning Ordinance
M&A	Mitigation and Adaptation
MPA	Marine Protected Areas
MSW	Municipal Solid Waste
MW	Megawatt
NACTU	National African Confederation of Trade Unions
N2O	Nitrogen Dioxide
NBT	National Board of Transport
NEMA	National Environmental Management Act
NEPAD	New Partnership for African Development
NERSA	National Energy Regulator for South Africa
NGO	Non Governmental Organisation
NLTTA	National Land Transport Transition Act
NPP	Net Primary Productivity
NUM	National Union of Mineworkers
NUMSA	National Union of Metal Workers of South Africa
NWA	National Water Act
OECD	Organisation for Economic Cooperation and Development
PCCC	Provincial Climate Change Committee
PDC	Provincial Development Council
PDI	Previously Disadvantaged Individuals
PESTLE	Political, Economic, Social, Technological, Legal, Environmental
PGC	Pacific Geo-science Centre
PV	Photovoltaic
RE	Renewable Energy
RED	Regional Electricity Distributor
SA	South Africa
SACSCC	South African Country Study on Climate Change
SAMWU	South African Municipal Workers Union
SAPP	Southern African Power Pool
SAR	Second Assessment Report of the IPCC
SATAWU	South African Transport Workers Union
SWH	Solar water heater
TAR	Third Assessment Report of the IPCC
TCA	Total Catch Allowance
TNA	Technology Needs Assessment
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention for Climate Change
US	United States
VER	Voluntary Emission Reductions
WC	Western Cape
WCAWU	Western Cape Agriculture & Allied Workers Union
WCDA	Western Cape Department of Agriculture
WCDM	West Coast District Municipality
WMA	Water Management Area
WRC	Water Research Commission
WSSA	Water and Sanitation Services South Africa
WWF	World Wide Fund for Nature

Executive Summary

Setting the scene for the Response Strategy and Action Plan

Climate change in the Western Cape – why a response strategy is necessary

Climate change is one of the biggest challenges facing the international community. Although media coverage and talk is generally about the future impacts of climate change, our climate is in fact already changing and a further level of climate change is inevitable – whatever the global response to reducing greenhouse gas emissions. Research has indicated that the south-western corners of the three continents south of the equator are likely to be the most affected by climate change. This has already been evidenced by the impact on Perth in Australia. Similarly, because of its location, the Western Cape is likely to be particularly vulnerable to climate change - and changes to the provincial climate will affect everyone in our community.

Much work is being conducted on a global scale to evaluate global warming and its impacts. Significant local variation around these global generalisations may occur and the complexity of the regional response needs to be carefully evaluated. The details underlying this continue to emerge as research continues and much remains still to be understood. Nonetheless, on the existing scientific understanding it is increasingly clear that there will be continued changes in the regional climate which, in nearly all respects, will impose additional stress with dominantly negative (and some positive) consequences for the province unless immediate steps are taken to optimise the opportunities which underlie these challenges. This necessitates a strategic response on the part of the provincial and national government, predicated on the best scientific understanding of the regional expressions of climate change.

There is little doubt that the Western Cape will face some degree of climate change in the 2030-2045 period, irrespective of local or global efforts to reduce greenhouse gas emissions. Although the scale and exact manifestation of the change is less certain, the application of a range of climate models to the province makes it possible to identify a number of stress factors with likely results:

- An increase in the annual average temperature of at least 1 °C by 2050 (the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report released in February this year shows an expected increase of between 3 and 5 °C by 2100)
- Possible increase in the frequency and intensity of extreme events
- An increase in conditions conducive to wildfires (higher temperatures and increased wind velocity)
- Reduced rainfall in the western parts of the Western Cape
- Decreased water resources

- Reduced soil moisture from an increase in temperature coupled with a decrease in average precipitation

- Temperature impacts on crop activities – crop burn, drought, pests and microbes resulting in yield reductions, and loss of rural livelihoods.

The above statements should not be regarded as forecasts but rather as indications of possible directions and scale of change. The most useful approach is to use these projections as an experimental basis for assessing additional risk – that is, the potential exposure to hazards to life, biodiversity or economic interests that climatic changes on this scale could pose.

The timeline parameter for the response strategy is the 2030-2045 period. 2030 is the earliest anchor year to which climate change projections can realistically be scaled back from global climate models, which look at 2045 and beyond. 2030 is also a time horizon within which policy, economic and business decisions can realistically be made.

Toward an integrated adaptation and mitigation action plan and response strategy

There are two key ways to respond to changing climate. One is through **mitigation** — the reduction of the intensity of climate change effects by reducing greenhouse gas emissions. This approach recognises that in the longer term, countries — and individuals — can stem the tide of climate change through activities that reduce the quantities of greenhouse gases we produce. This approach implies radical changes in the use of technology, and employing practices that actively reduce carbon emissions such as innovative industrial processes, the use of cleaner fuels, the implementation of energy efficiency measures and the enforcement of fuel-efficient vehicles.

An additional but equally important response is **adaptation**, which is the process of recognising the effects of climate change and adapting to these changed conditions. Adaptation implies **behavioural change** in response to the changed conditions, such as the implementation of alternative farming practices, appropriate measures in development planning, changes in demand side management practices and so on. (Demand-side management is the practice of controlling the use of resources such as water, and of utilities such as electricity by controlling the demand for these resources). This implies behavioural change by the consumer rather than the supplier. For example, making electricity more expensive during peak hours would result in decreased use during those times.

The long 'lead-in time' of climate change means that a certain level of change is inevitable – meaning that we will have to adapt in order to maintain economic stability and enjoy a measure of continued growth. Adaptation, however, is not enough. It will see the Western Cape through effective risk management if integrated effectively in decision planning, stewardship and resource conservation decision- making and implementation processes, but it needs to be coupled with mitigation strategies that aim to reduce the provincial carbon footprint - the Western Cape is a relatively low emitter in terms of local direct emissions. However its contribution to national emissions is significant given the amount of electricity that is imported from Mpumalanga and consumed locally (over 90% of the province's electricity is imported). South Africa is a significant global emitter (19th biggest GHG emitter in the world)[1] with over 70% of emissions arising from electricity production.

[1] Climate Change Indicator Analysis Database, World Research Institute

The balance between mitigation and adaptation needs to be carefully weighed. Postponing a mitigation response significantly impacts the future time when climate change can be controlled and greatly increases the risk of serious and irreversible climate change. Mitigation measures are critical, particularly as the Western Cape strengthens its energy supply and security base through infrastructure investment. Here only clean technologies and deployment of renewable resources can be considered options in the context of climate change.

While mitigation efforts are not going to be effective in the short term (10 – 30 years), we must make progress in developing technologies and approaches to reducing carbon emissions. International concern is already leading valuable markets in the European Union to impose carbon emission reduction targets on their suppliers. The Western Cape stands to lose market share on agricultural goods, for example, if no attempt is to be made to achieve at least carbon neutrality (i.e. no net emission of carbon for a produced good).

In the Western Cape Climate Change Strategy and Action Plan, less than 15% of the total budget for the Western Cape government is allocated to mitigation. The remaining 85% goes towards adaptation measures: increasing capacity, strengthening resilience and minimising risk.

Both mitigation and adaptation require that government leads by example. It needs to drive behavioural change and action through informed policy and incentive instruments as well as through demonstrable activities such as government waste recycling programmes and the use of alternative energy sources such as solar water heaters in government buildings.

Dealing with risk, uncertainty and vulnerability

A strategic response needs to be cognisant of the uncertainties – but also of the inherent risks – of climate change. Dealing with uncertainty necessitates a focus on measures and actions that should happen in any case, where climate change enhances the urgency of the action and response. To be effective, the strategy and action plan must result in climate risk being considered as a normal part of decision-making, thus allowing government, business and individuals to reflect their risk preferences as they would for any other risk assessment. Both angles described are strategies to facilitate the reduction of the complexity of response to a manageable level. Effectively, this means 'mainstreaming' climate change into other dimensions of strategic planning and risk management – dimensions that are already in place.

Many of our human and natural systems are strongly influenced by climate. Natural ecosystems evolve in variable and generally slowly changing climate patterns and industries and communities are also affected by climate factors – for example influencing productivity and reliability of supply. There is also an underlying expectation that infrastructure and cities will safely and efficiently cope with extreme weather events and that lives will adapt to severe events such as intense pollution episodes.

Prioritising response actions to climate change requires the following:

- identification of vulnerable systems (both natural and human) and the estimation of costs if these systems fail

- identification of the scope to reduce risks, strengthen adaptive capacity and capture potential benefits.

Vulnerability is a function of exposure to climate factors, sensitivity to change and capacity to adapt to that change. Vulnerable systems are those that are highly exposed, sensitive and less able to adapt. Developing a response strategy that encompasses adaptation must identify sectors and systems that are vulnerable to change coupled with an examination of the scope to increase their resilience. A further consideration in the prioritisation process is the identification of vulnerable systems or regions whose failure or reduction is likely to carry the most significant consequences.

Priority systems and sectors in the Western Cape

Vulnerable systems identified as priorities for this strategy are:

- Natural systems – water, biodiversity, and coastal and marine systems and resources
- Economic sectors – agriculture, tourism and fisheries
- Economic resources and infrastructure – energy, transport, health and air quality
- The built environment, livelihoods and disasters – social systems, extreme events (floods, fires).

The development of the Western Cape response strategy and action plan involved the application of a vulnerability framework to identify priorities in dealing with climate change. The following systems and sectors – natural and human – have been identified as priorities and these reflect considerations of climate vulnerability, the significance of the systems and sectors at risk and the required need for government intervention to encourage a timely and efficient response:

Natural systems and resources

The availability of ***water*** is essential for many industries, livelihoods and other natural resources. Many cities and regions in the Western Cape face water stress already. In most cases, climate change will increase this pressure through increased temperature, possible reductions in rainfall, drying, and related (possible) increase in extreme weather events. Reduced water supply and a drought as severe as the one experienced in the province in the 1920s can have catastrophic short- and medium-term effects in terms of human and economic losses.

Options for responding to water stresses (as already experienced) could include the systematic inclusion of climate risk on both the supply and demand side in all the province's major catchments. Much work is already being done in the area but climate risk strengthens the need to harness existing supply, to manage resources more efficiently, to implement the ecological reserve and to develop more robust catchment models. It also necessitates improved decision-making support tools.

Eco-systems and biodiversity are likely to come under significant pressure from climate change, which is likely to proceed at a rate that will exceed the natural adaptive capacity of many organisms and systems. In some cases, there may be scope to assist the adaptation of vulnerable systems and species and the threat of climate change should be specifically factored into related planning and actions. Managing Invasive Alien Species in an integrated manner based on prevention, early response and removal is critical to protecting the

province's delicate and unique fynbos eco-system, for example, which in turn protects natural water supply.

Other options for managing biodiversity in the face of climate risks include extending protected areas, managing wetlands consistently and effectively and increasing the provincial fire risk ratings.

Coastal and marine systems and resources are exposed to extreme events, which may increase in terms of frequency and intensity with increased salt-water intrusion, raised groundwater tables and increased coastal erosion. The province's coastline is sensitive to sea level rises, which will impact on coastal ecology – particularly where developments are too close to high-water lines. The impacts of climate change are also economic – the Western Cape's 50 estuaries are particularly vulnerable to climate change and these are important feeding and nursery grounds for many shellfish, fish and bird species and are economically important as fisheries.

Possible options for mitigating climate risk include integrating climate risk considerations into coastal development planning and strengthening already existing coastal assets and infrastructure. Also important will be to refine the understanding of socio-economic impacts of reduced fisheries – particularly on the West Coast (the hub of the South African fishing industry) – as a possible consequence of climate change.

Economic sectors

Agriculture systems have an inherent level of adaptive capacity to climate variability and change. This is evidenced through changes in land management practices, crop and cultivar choices and (to a lesser extent in this province) in the selection of technologies and species to increase efficiencies of water use. The degree of climate change does however test the limits of this autonomous adaptive capacity and many aspects of agricultural life in the province are already found to be at (or close to) their thresholds. The agri-business units at highest risk will be:

- Those that are already under stress economically and/or biophysically as a result of land degradation, salination and loss of biodiversity
- Those at (or close to) the threshold of their climate tolerance
- Emerging farmers who may have limited capacity, resources and skills to adapt to and withstand economic pressures
- Rural livelihoods that depend on agri-business-based economic activity for jobs
- Commercial farmers where significant long term investments have been and are being made – for example in irrigation systems, processing facilities and some cultivars
- Agri-business activity that is dependent on the export market which is adapting to climate change in itself – for example importers such as Marks & Spencer moving toward a carbon-neutral status and transferring this pressure onto suppliers and the ever increasing focus internationally on reducing 'food-miles'.

Options and strategies to increase resilience and reduce the vulnerability of this sector should include integrated land care management, research on pests and microbes that are particularly sensitive to climate change, research on cultivars that are capable of handling temperature increases and drought and more efficient irrigation for water conservation.

Fisheries, as discussed in the coastal and marine section, are sensitive to climate change and risks. Communities that depend on the resource as well as commercial industry are at risk. The last 8-10 years have seen significant financial investment in the sector and that investment is potentially at risk due to climate impacts.

Options for adaptation include researching the socio-economic impacts, understanding the adaptive capacity of fishing stock (for example, migrating eastwards) and factoring climate risks into calculating allocation allowances.

The ***tourism sector*** in the Western Cape is largely dependent on international (European) tourists who may respond to international adaptation and mitigation responses to climate change. The introduction of a carbon tax on air travel may, for example, encourage long-haul tourists to seek destinations closer to home, thus making travel easier on the pocket. Tourism also places stress on scarce resources such as water. Increased temperatures in the province may lead to an increased energy demand, for example, in greater demand for air conditioning. Increased air pollution may impact negatively on tourism, and threats that climate change poses to the province's coastal infrastructure and beaches are also of concern.

Mitigation and adaptation responses could include factoring climate risks into development planning and approval processes in the industry; researching the socio-economic impacts of climate change on tourism and monitoring climate impacts, responses and tourism demand closely in the province. Alternate sustainable energy development that includes applications for the tourism industry (such as solar water heaters) is an important mitigating response strategy for the sector.

Economic resources and infrastructure

Demand for ***energy*** is temperature sensitive – increasingly so with the penetration of commercial and domestic air conditioning with peaks changing from winter to summer and getting steeper. Alternate water supply options such as desalination plants are under consideration due to increased water stresses but these plants are energy intensive. Electricity supply is sensitive to both extreme weather related events and in some cases temperature itself as it degrades transmission capacity. Infrastructure (electricity distribution) is also susceptible to the impacts of increased bush fires. The Western Cape's energy infrastructure has demonstrated its reduced capacity to sustain cumulative impacts. The failure in supply of high quality energy that the province has come to rely on brings much higher social and economic costs than ever previously experienced. The electricity sector is subject to regulation and it is not clear that the regulators are as yet sensitive to the pressures that may be further placed on infrastructure by climate change, and hence the possible need to allow some level of redundant capacity.

Climate risks must be factored into the Western Cape's energy planning. Mitigation and adaptation responses include strengthening the province's energy security through diversifying its supply base into resources already identified as available – natural gas, wind and solar, to name the 'tried and tested' resources available to the province. Managing efficiency through demand side management programmes and maximizing opportunities in an already-established solar water heating industry are also solutions with clear evidence for implementation.

The ***transport sector*** is already under stress and development planning has impacted negatively on the sector in that communities are being established further and further away

from economic nodes. The sector is a significant contributor to provincial greenhouse gas emissions and growth in demand will only serve to exacerbate this problem. In addition, local air quality is impacted on by transport.

Options for mitigation in the sector include introducing cleaner fuel programmes in the provincial fuel mix and commercialising innovation in the province such as the development of South Africa's first 'home-grown' electric car.[2]

Air quality can be sensitive to increased temperatures, increased greenhouse gas emissions as well as to an increased demand for local fuels such as paraffin and wood. Local and indoor air quality impacts on ***health*** and could, as mentioned, affect economic activities such as tourism. Climate change and failure to mitigate may contribute to increased severe air pollution episodes, and early warning systems can help mitigate this.

Options include increasing the number of monitoring stations in the province, disseminating air quality data effectively and introducing cleaner fuel programmes in peri-urban and rural areas.

Other health impacts include those that arise from increased penetration of Invasive Alien Species (IAS) as a result of climate impacts such as increased temperatures combined with drying. Some species contaminate water, increasing the risk of disease. Poor air quality (pollution) contributes to increases in respiratory diseases. Other vector-borne diseases may also arise as a result of climate impacts.

Introducing a cohesive programme for managing IAS in the province that has a clear vision and budget is an important adaptation option.

The built environment, livelihoods and extreme events

Exposure of the province's cities and settlements to climate risks is high but the sensitivity to change is dependent on the way climate change impacts on extreme events. The ***built environment*** and urban areas can be seen as machines to manage and control climate impacts. Cities and infrastructure are built to accepted risk limits based on climate patterns and limits as we have known them. Some of the provincial infrastructure and various communities are already threatened by having been established on unsuitable sites, due to poor planning conditions (examples include housing developments on sites vulnerable to flooding or coastal infrastructure below the high water mark), and climate change is set to alter these limits, which are in some cases already stretched. Damage, injury and death as a result of increased extreme events hold particularly strong consequences for ***livelihoods, settlements, and emergency services*** that are already beyond their thresholds. In many of the provincial urban and rural centres, increases in severe weather events linked with climate change (such as fires, heavy rainfall, high winds and increased heat waves) could cause significant damage. This is worsened in areas that have increased population density, such as Cape Town and George.

Options to adapt include integrating climate risks into development planning and approval processes; enhancing the emergency services and integrating climate risk into disaster management processes and systems; and maintaining livelihoods (such as rural livelihoods) as far as possible so as to minimize population stress in urban centres.

[2] Optimal Energy in Cape Town is developing a first prototype with funding from the Innovation Fund.

Pulling risk and vulnerability together in the Western Cape

Climate change can influence and react with a range of macro-variables. In the Western Cape it can be a driver of internal migration – should rural livelihoods decline – and production patterns[3]. Climate change could interact with demographic and behavioural trends with implications for future health care and community service needs. Increased demands on the province's already-threatened energy security and water supply systems will have economic and social consequences. In addition, the province is likely to be influenced by international climate impacts and responses and the related effect on commodity prices, demand and volumes, requisite changes to production processes and socio-economic factors, including pressure for disaster relief and migration.

The ***stakeholder consultations*** in the process of developing the response strategy and action plan saw a common thread emerging: the desire for government to lead by example coupled with consistency and follow-through on strategies, plans and policies adopted. This requires strong provincial government leadership on climate change response, which can manifest through:

- Demonstrated integration of climate risks in decision-making and planning across the different tiers of government
- Leadership by example at a most senior level of government
- Improved understanding and knowledge of climate science, related risks and impacts and the establishment of clear government – science dialogue
- Co-ordinated monitoring, review and revisiting of strategies for identifying and managing risk in vulnerable systems and sectors
- Provision of decision-support tools and climate change related information that could assist local government, developers, the private sectors and households to integrate climate risk into key decisions and resource management
- Dissemination of information about climate change, weather and air quality
- Communications, education and awareness around climate change in all sectors and communities.

Approach and methodology to developing a provincial response strategy

Stakeholder consultation, international best practice, a comprehensive literature review and expert opinion have informed much of the work in developing the strategy. A critical success factor for the roll-out of the response strategy is its integration with other relevant strategic planning processes and initiatives, planned and future, in the Western Cape and nationally. A close review of these therefore further underpinned the strategy development.

Climate science analysis provided the basis for assessing impacts and developing the adaptation and mitigation strategy. This analysis began with climate models and global emission scenario models and then applied multi-disciplinary approaches in linking these models to spatial models such as biodiversity and crop productivity. Sensitivity thresholds of the prioritised vulnerable natural and human systems were then tested. Climate science modeling information is represented through a set of robust statements about expected climate change in the Western Cape and some climate scenarios (i.e. outlines of future

[3] Such as some farming communities moving toward a 'carbon neutral' or 'zero carbon' production status.

climate development for the province). This climate change information was assessed as integrated with socio-economic models for the province (i.e. comprising environmental changes linked with socio-economic changes) so as to provide the context in which climate change will have its impact.

Stakeholder engagement and discussions with government officials, civil society, community-based organisations, development agencies and private sector industry players were used to provide a rapid broad-based assessment of the key issues and priorities as perceived by experts in the related fields, politicians, local authorities and strategy administrators, industry players and communities. Stakeholder engagement also provided the platform for developing the communication strategy and awareness campaigns.

International best practice and literature review facilitated the assessment of countries and regions that face similar bio-physical and/or socio-economic challenges to the Western Cape. Possible partnerships were identified with countries and regions such as Peru, Chile, Western Australia, California, Morocco and Queensland, which can assist the province significantly in its ability to leap-frog certain research and assessment processes and to deal more robustly and cost effectively with climate change risks. The Western Cape is fortunate in that it is home to strong research, scientific and socio-economic analytical ***expertise*** and is home to some of the international community's most renowned climate scientists and policy makers. This provides a sound platform for accessing international research and the critical success factor lies in the ability to identify suitable partnerships.

A response options matrix

A vast number of possible response options emerged from the research, stakeholder consultations and expert review processes (around 280 options including both mitigation and adaptation responses). These options populate the full matrix of possible climate change response actions for the Western Cape. These are grouped for ease of reference on a sectoral/systems basis. These sectors and systems each underwent risk and vulnerability assessments which were informed by research and analysis in each cluster based on the application of a framework that examined political, economic, social, technological, legal and environmental indicators (PESTLE analysis). This facilitated the basis for an initial level of prioritisation within sectors and systems based on an understanding of the sensitivities and adaptive capacities within each.

Prioritising and evaluating options

The matrix was further filtered using a multi-criteria analysis model that comprised:

- Cost-effective analysis – *assessing the cost of taking action versus the cost of a 'business as usual' approach*
- Ease of implementation – *who will be the option custodian and can the option be implemented on a practical level?*
- Social impact – *will the implementation of the action have a positive or negative social impact and will it compromise the goals of sustainable development within the province?*
- Environmental effectiveness – *will the measure or action have a neutral or positive environmental impact when considered holistically in the context of the environment in which it will take effect?*

An example of an option that did not meet the criteria in this filter process is the assessment of local supply side of biofuels in a cleaner fuel programme for the Western Cape. Biofuel production using known feedstock is water intensive and can also be energy intensive, thus

making a net energy balance and a neutral or positive environmental footprint difficult and, in some instances, close to impossible. Creating a viable local supply of biofuels requires consistent and high agricultural yields, and the trend of planting crops on marginal lands at the expense of emerging farmers does not facilitate the achievement of this objective; thus also indicative of a negative social impact and potentially increasing rather than reducing poverty.

The prioritised options matrix (around 40 options) was also taken through a process of stakeholder workshops conducted in Cape Town and George and subsequently through governmental department presentations and review processes.

The Response Strategy and Action Plan

The response strategy and action plan aims to strengthen the province's resilience to climate change and its adaptive capacity, particularly in vulnerable economic sectors and communities. It further aims to maintain the Western Cape's status as a relatively low greenhouse gas emitter by reducing the provincial carbon footprint even in the face of economic growth.

The action plan and strategy identifies water as a significant risk factor when considering climate change impacts, risk and vulnerability. Establishing a cohesive water supply and infrastructure management programme that integrates climate risks is a cornerstone of the response strategy and action plan.

The response strategy and action plan is built on the following prioritised programmes:

- ***An integrated water supply and infrastructure management programme that integrates climate impacts and risks*** – researching the cost benefit of irrigation, increasing water efficiency including through pricing strategies, establishing uninterrupted water conservancy targets, systems maintenance and repairs and establishing the ecological reserve

- ***Establishing clear links between land stewardship, livelihoods and the economy –*** effective land use and land care; protection, maintenance and enhancement of natural resources; strengthening vulnerable communities and protecting livelihoods through targeted research; maintaining diversity in the economy; integrating climate risks into development planning.

- ***Establishing a focused climate change research and weather information programme***

- ***Reducing the Provincial carbon footprint –*** energy efficiency, development of renewable and alternate sustainable energy resources, effective waste management strategies and cleaner fuel programmes for households and transport.

A supporting communications strategy

The strategy and actions implemented will only be effective if supported by an integrated communications strategy that will create awareness and understanding, drive prioritised change and support government policy decisions – some of which may be unpopular. Education and training for specific government departments and sectors, stakeholder engagement and targeted communication and awareness campaigns are central to the

communications strategy and are developed to support the key programmes identified as cornerstones to the Western Cape's response to climate change. A critical principle identified is the need to raise awareness levels in and to educate the province's youth – particularly given the timeframe and lead-in time challenges climate change presents us with.

A legislative review
The legal framework review examines the relevant environmental and social administrative legislation in which climate change and related issues operate in the province and in South Africa. An important legal review outcome is that the provincial Climate Change Response Strategy and Action Plan is not necessarily legally a policy. However, it does constitute a deliverable in that stakeholders have been informed and consulted in the development of the strategy and as such have a legal right and legitimate expectation to expect performance from the government of the Western Cape.

Climate change impacts and risks also give cause to consider the implementation of certain pieces of legislation that provide for action but which have not as yet been enacted. The Water Act, for example, provides for the implementation of the ecological reserve, which has not yet been enforced but which is certainly necessary given potential climate risks.

Funding mitigation and adaptation
A range of options are available in the international community that aim to support reduction of greenhouse gas emissions in developing countries such as South Africa - such as the Clean Development Mechanism (CDM). Other options support adaptation-based strategies and responses, such as research and implementation programmes through the United Nations Framework Convention for Climate Change (UNFCCC) Adaptation Fund.
The risk, however, resides at home and local leadership and financed response is critical if the province is to strengthen resilience and enhance adaptive capacity. Government owns significant amounts of the provincial infrastructure – some of which is extremely vulnerable to climate change at a high cost. Treasury has a key role to play in ensuring that budget allocations are appropriate and that these are considered, given the cross-sectoral nature of climate change. In any event, applications for UNFCCC funding can only be successful where supporting research and accurate information underpin the application. Certainly a partnership-based approach to funding is identified as a critical success factor.

Challenges, conclusions and key recommendations

The analysis, research and review work conducted in the 2005 Status Quo Review work and in 2006 / 2007 in developing this response strategy and action plan points clearly to the need for a response strategy that mitigates risk, reduces vulnerability and strengthens the province's capacity to adapt to climate change while simultaneously reducing the provincial carbon footprint.

A number of challenges exist when considering the implementation of a climate change response strategy and action plan for the province. A significant challenge lies in examination of appropriate and facilitative ***institutional arrangements*** required for effective implementation. Climate change is cross-sectoral by nature and is not restrained in any way by human imposed constraints such as linear government functions. A cohesive water programme, for example, requires provincial ownership, Department of Water Affairs and Forestry (DWAF) ownership and participation and then significant involvement by other departments such as agriculture. DWAF does not, however, have a provincial function and

although there are structures in place such as the Provincial Water Liaison Committee, accountability is not altogether clearly established.

A number of the conclusions are inherent in the response strategy and action plan. However, the province and South Africa will need to give careful consideration as to how the institutional arrangements are best structured to allow for the realization of sustainable development goals while dealing with the negative and positive impacts of climate change on achieving these. Both climate change and sustainable development – which indeed are intertwined – give rise to contemplation of the problems of inequality and poverty. When considering these against the environmental challenge inherent in the climate change scenario it may appear that the latter is not important – but to quote Amartya Sen, Nobel economics laureate and philosopher who visited South Africa in April 2007 to deliver a lecture on poverty, war and peace, "*It seems (to me) that the main challenge for a human being is how to take note of each of these major issues without putting them in a horse race with each other".*[4]

[4] As quoted in the Sunday Independent, 29 April 2007.

The Action Plan

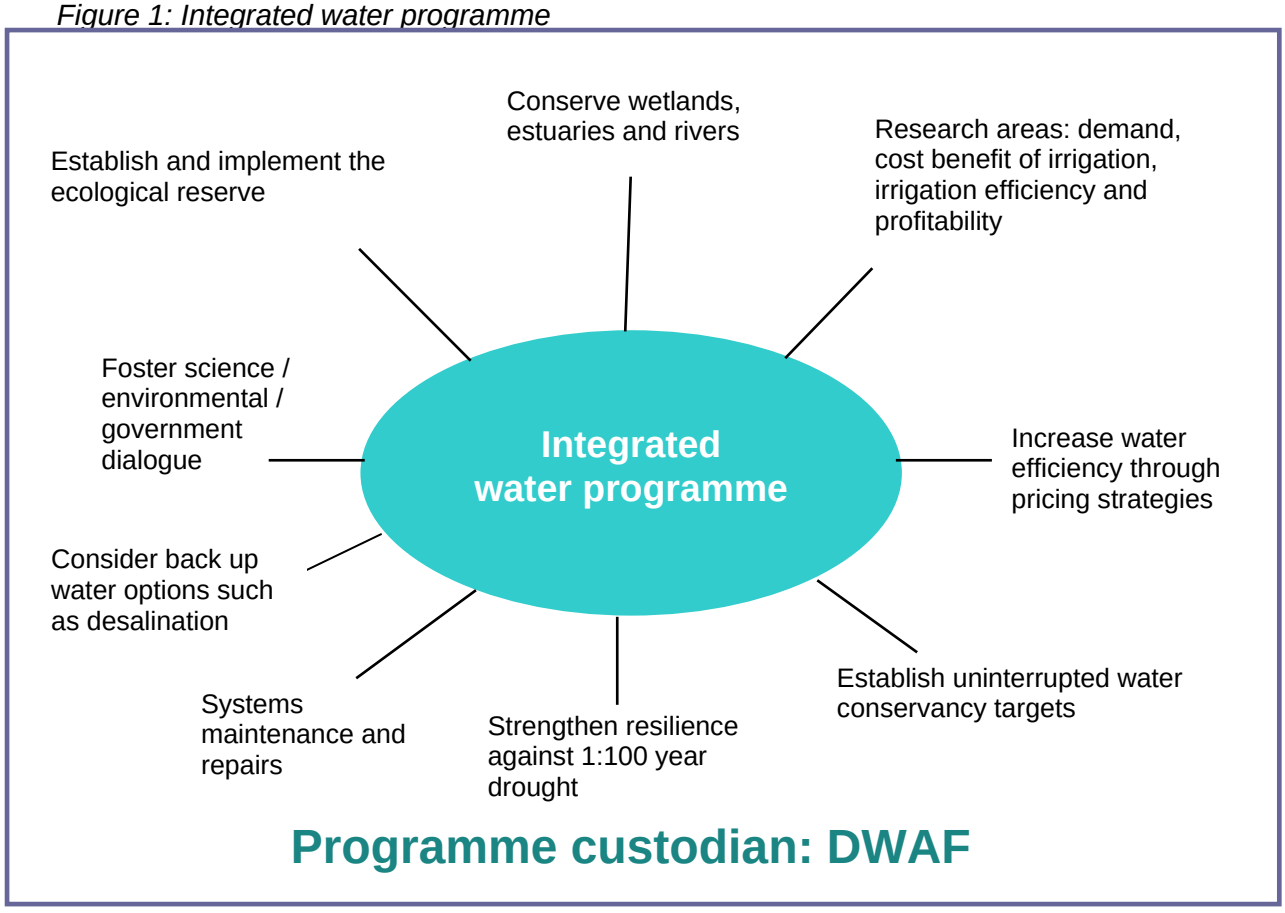
The Western Cape's Climate Change Action Plan is based on a set of integrated cross-sectoral planning and implementation programmes. These programmes include both mitigation and adaptation responses, and are outcomes based:

1 Adaptation response strategy and programmes
1 Integrated Water Management Programme
2 Climate change, weather research and information programme
3 Land stewardship and Livelihoods Programme
2 Mitigation response strategy and programmes
4 Energy, transport, waste and air quality management programme

Key outcome # 1

Establish a cohesive Water Supply and Infrastructure Management Programme that integrates climate impacts and risks

Figure 1: Integrated water programme

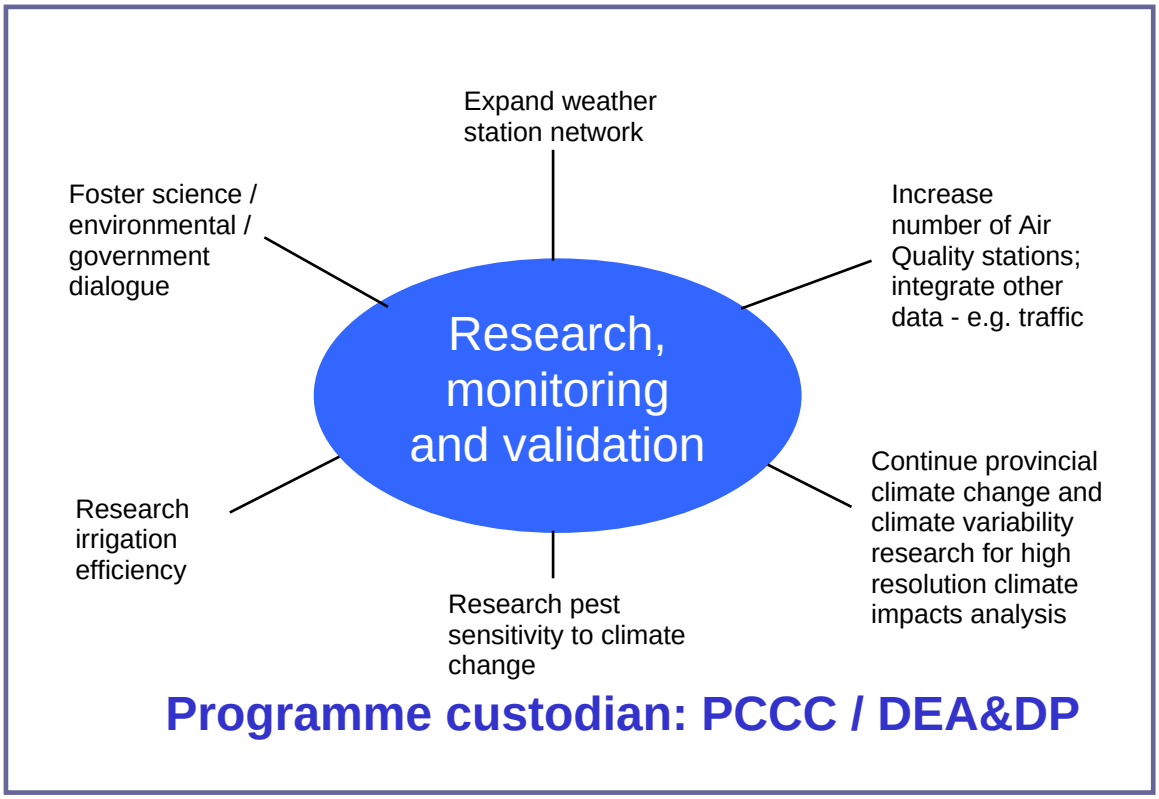


Source: OneWorld Sustainable Investments 2007

Key outcome # 2

Establish a focused climate change research and weather information programme

Figure 2: A focused climate change research and weather information programme

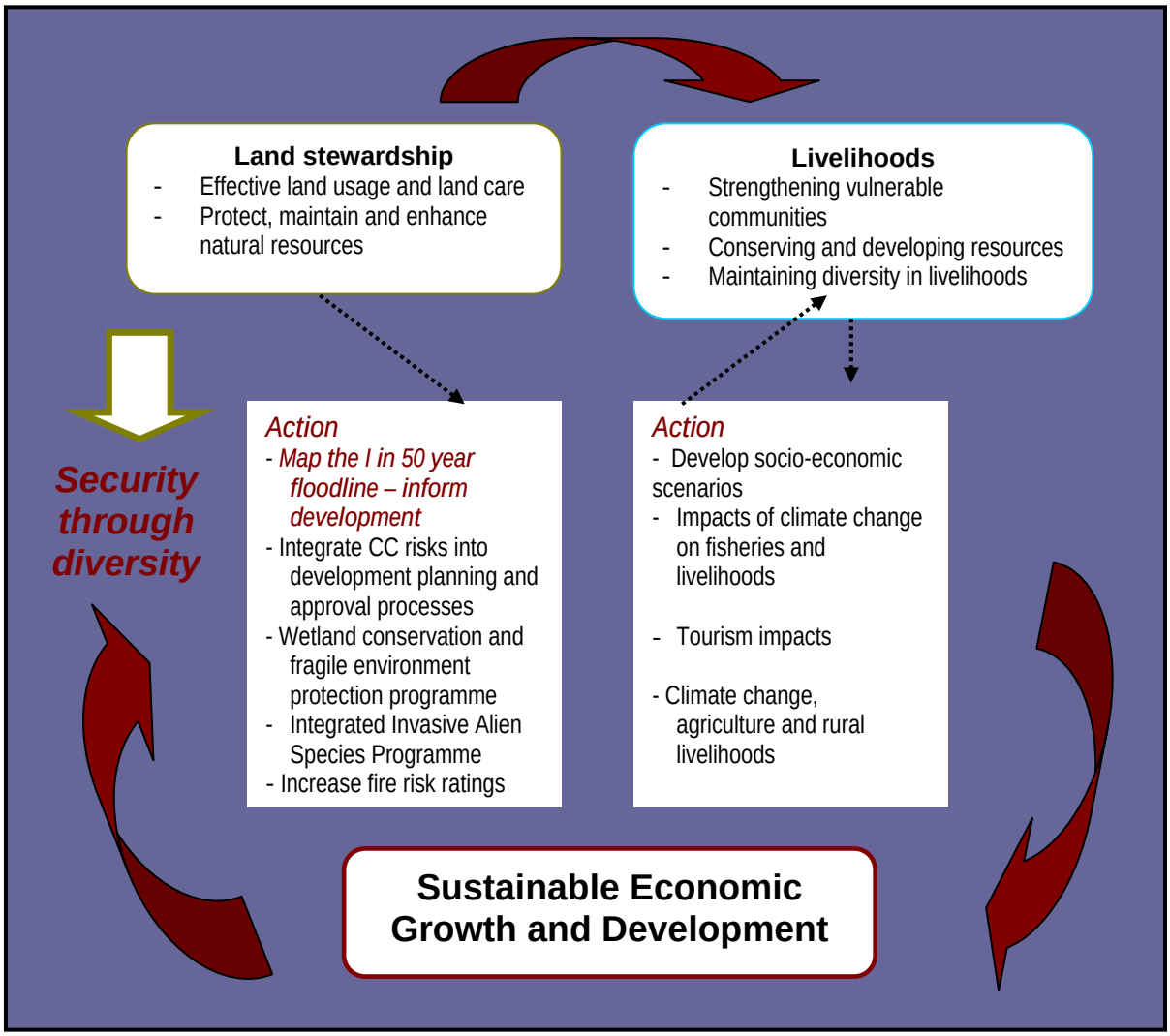


Source: OneWorld Sustainable Investments 2007

Key outcome # 3

Establish clear linkages between land stewardship, livelihoods and the economy

Figure 3: Linking land stewardship, livelihoods and the economy

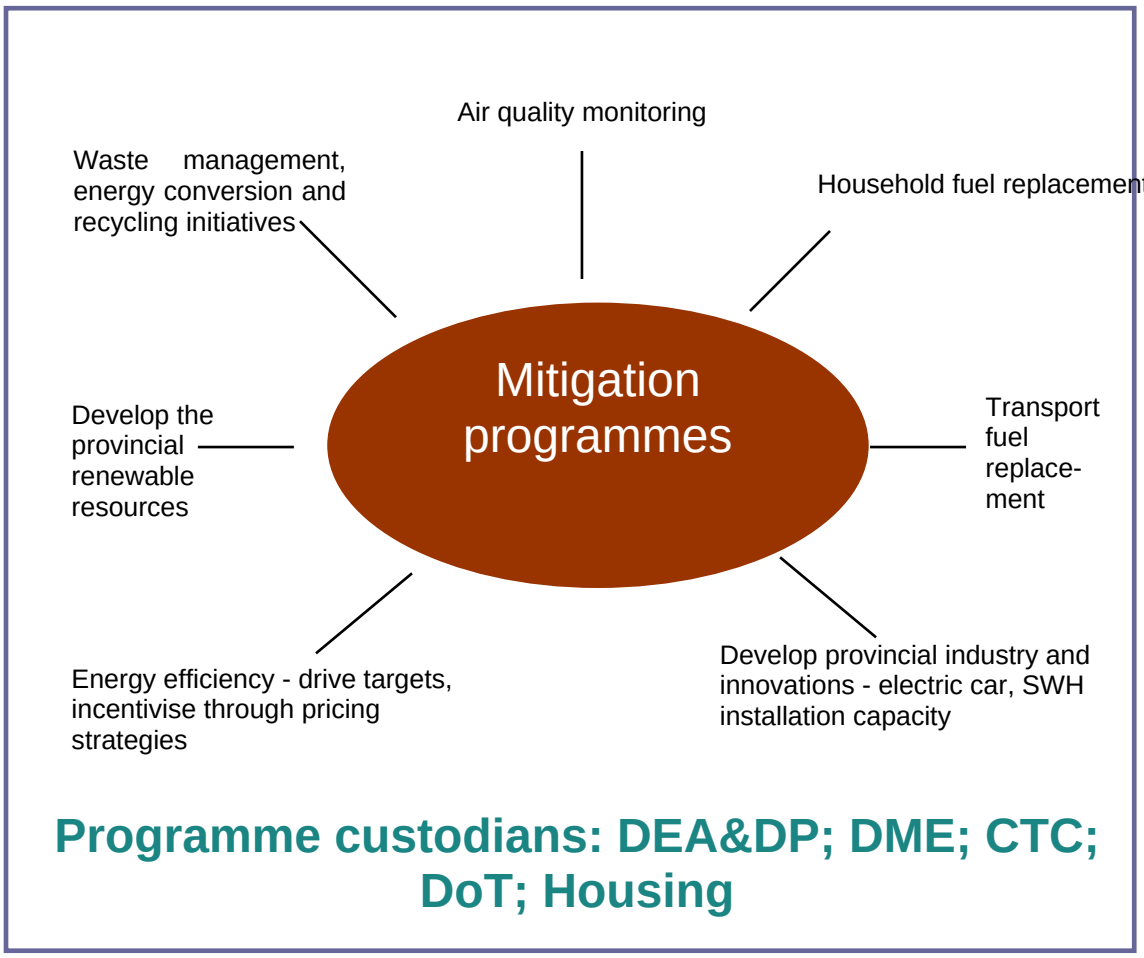


Source: OneWorld Sustainable Investments 2007

Key outcome # 4

Reduce our carbon footprint

Figure 4: Reducing our carbon footprint



Source: OneWorld Sustainable Investments 2007

APPENDIX B

Proposed Draft Guidelines

1.1 GUIDELINES FOR RURAL DEVELOPMENT

1.1.1 Rural Settlement Patterns

Rural settlement patterns in the Western Cape comprise:

- The farm homestead and associated outbuildings, usually clustered together and historically enclosed in the farm 'werf';
- On-farm workers accommodation in the form of labourers cottages and some casual seasonal worker hostels, usually located away from the farm 'werf', with recent trends showing the conversion of labourers cottages into visitor accommodation;
- Off-farm hamlets and villages located along the main movement routes;
- Recent patterns of rural residential sprawl, mainly on the outskirts of urban centres, associated with new low density property developments; and
- A growing incidence of the conversion of working farms into weekend leisure destinations where the veld is often restored to a natural state and dispersed leisure accommodation is developed.

(Source: Rural Land Use Planning and Management Guidelines, 2009)

1.1.2 Guidelines to Manage Rural Settlement Change

The principles underpinning the Western Cape's rural land use management guidelines are:

- Decisions on rural development applications should be based on the following sustainable land use principles:
    - Social inclusion,
    - Effective protection and enhancement of the environment,
    - Prudent use of natural resources, and
    - Maintaining high and stable levels of economic growth.
- Good quality and carefully sited development should be encouraged in existing settlements.
- Accessibility should be a key consideration in all development decisions.
- New building development in the open countryside away from existing settlements should be strictly controlled regarding scale, height, colour, roof profile, etc.
- Priority should be given to the re-use of previously developed sites in preference to greenfields sites.
- All development in rural areas should be sensitively developed and inclusive, in keeping and scale with its location, and complimentary to the character of the rural landscape and local distinctiveness.

(Source: Rural Land Use Planning and Management Guidelines, 2009)

1.1.3 Rural Housing

To achieve integrated rural development and sustainable human settlements in the Western Cape, new housing development beyond the urban edge should be curtailed. The appropriate approach is to channel pressures for residential development to existing towns, villages and hamlets. The only two exceptions for housing development in the rural landscape are: providing 'on-and-off farm' security of tenure for farm workers; and providing restricted residential rights to incentivize the consolidation of rural properties of high biodiversity value and their incorporation into the conservation estate.

(Source: Rural Land Use Planning and Management Guidelines, 2009)

1.1.4 Appropriate development in rural areas

Appropriate development in rural areas, i.e. beyond the urban edge, includes:

a. development associated with farming activities, such as worker housing, sheds, wineries, market gardening tunnels, and in certain areas, agri-industrial activities and small-scale farming;

b. development related to rural landscapes more generally, such as tourism, nurseries, mining, and recreational activities; and
c. certain wastewater treatment works, solid waste disposal sites, power generation sites, water treatment sites and cemeteries.

Conventional residential, commercial, business and industrial land uses are directly associated with urban living, and should be limited to urban areas, as defined by the urban edge.

(source: city of Cape Town SDF, 2009)

1.1.5 New Settlements

The Provincial approach is to channel, wherever possible, settlement development pressures into the Western Cape's existing cities, towns, villages and hamlets. Only in essential circumstances should new settlements of appropriate scale and compatibility be considered within the rural landscape.

(Source: Rural Land Use Planning and Management Guidelines, 2009)

1.1.6 Rural Development Program (CRDP)

A. How the program works:

The Comprehensive Rural Development Programme (CRDP) is a collective strategy in the fight against poverty, hunger, unemployment and lack of development in rural areas.

Every household in identified sites will have at least one person employed, for a period or two years, in job opportunities the CRDP would have created during this piloting. This will apply to all rural areas where the project is being implemented. In this period of two years, those contracted in the created job opportunities will be provided with training and there will be an exit strategy implemented six months before the two year contract ends to ensure participants in the programme are able to get jobs or start a business enterprise to sustain themselves when the contract ends.

The indicator or measure of the success of the comprehensive rural development programme will, amongst others; be the level of social cohesion and development facilitated in the rural areas. The extent to which our rural communities have become sustainable, equitable and vibrant will also form another layer for assessing whether the programme has had the impact it was intended to have;

Comprehensive rural development is not merely about agriculture it is broader than that; it includes and addresses agrarian transformation to leverage our natural resources in our fight against hunger, poverty and unemployment. Rural development also seeks to improve rural economic and social infrastructure; and land reform;

As such, the programme will facilitate, as a catalyst, processes to address the specific and prioritised needs of the communities in rural areas, ranging from clean running water, decent shelter to proper sanitation and enterprises development support;

The collective developmental interventions will initially focus on meeting our people's basic needs in relations to food security, graduate, in the entrepreneurial stage, to relatively large scale infrastructure development and finally, culminate into industrial and financial sector emergence stage, characterised by the emergence of small, micro and medium enterprises and village markets;

The programme leverages existing experiences, skills and collective memories of members of the rural communities, and creates space for the adaptation of indigenous knowledge and available assets in the rural environment to address the challenges of the modern times and the changing world.

(Department of Rural Development and Land Reform, on line, 2012)

B. Precedent/Pilot project: Dysseldorp CRDP, Oudsthoorn Local Municipality

Dysseldorp, located in Oudsthoorn Local Municipality, with a population of approximately 12 000 was elected an announced as a pilot site for the CDRP in February 2010.

The town is characterised by high levels of teenage pregnancy, lack of Early Childhood development centres, need for internet access at the local libraries, need to upgrade and maintain the sports complex, limited activities for youth and no existing communal agricultural projects.
Since the project inception, progress was made in the following areas (note: the list below is not exclusive):

- The establishment and capacity building of the council of stakeholders;
- The development and upgrading of infrastructure in the two wards;
- The resettlement of a number of families from informal dwellings into formal dwellings;

- Implementation of 43 household food gardens;
- Fitting of 50 water tanks for water harvesting;
- 2ha of state land obtained to establish food gardens and semi commercial agriculture;
- 184 beneficiaries were trained and mentored on food gardens and infrastructure development. Twenty of the beneficiaries were over the age of 35 and one was a disabled male;
- 41 beneficiaries were trained in order to assist with the implementation of agricultural projects;
- 24 para-professionals were trained by the Agricultural Research Council.

(Dysseldorp Pilot CRDP Site Media Tour Briefing Document, 2012)

1.2 DENSIFICATION GUIDELINES

1.2.1 Resubdivision

Densification through resubdivision and infill should be restricted to selected erven to ensure that appropriate densification takes place at appropriate locations. The desirability of densification should also be informed by policies to retain the overall character of the settlements in questions.

Future resubdivsions should be assessed in terms of the following guiding principles:

- Maintain the urban character of development consistent to surrounding development;
- Location and the ability of existing structures to enable resubdivision.

(Source: *Napier SDF, 2002)*

1.2.2 Additional dwellings

Applications for additional dwellings (currently permitted as a consent use) should be assessed on the basis of the following guidelines:

- Where an additional dwelling on a property is allowed, the dwelling should be placed behind the main building in such a manner that the building is satisfactorily screened from the street.
- The additional dwelling must use the same street access point as the main residence and could be linked to the main building through a permanent architectural feature such as wall or courtyard.
- The additional dwelling should be of the same vernacular style as the main property;
- No cadastral subdivision of units may take place.
- The applicant must sign an agreement not to use the consent as motivation for subdivision;
- Additional dwellings should not be permitted on erven with an area less than 500m²;
- Provision must be made for adequate off-street parking;

- An additional dwelling may not be converted for the purpose of a bed and breakfast or guest house establishment without the prior written consent of Council.

(source: City of Cape Town SDF, 2009 and *Napier SDF, 2002*)

See also Section 1.3.

1.3 GUIDELINES FOR RURAL / URBAN GATEWAYS

Where major access roads traverse from an urban to a rural area (such as in the case of Napier, Bredasdorp etc.) these transition areas need to be regarded as carefully managed gateways to protect the rural landscape and the sense of arrival in the settlement often, a very important component of its first impression and tourism appeal.

The following recommendations are proposed in this regard:

a. Prepare and establish an appropriate landscape and urban design framework for each.
b. Identify intrinsic characteristics that give these gateways a unique sense of place and determine the appropriate mix, scale and location of activities in the area.

These guidelines should address, among others, the following elements:

- Vegetation and landscaping;
- Historic and urban character (e.g. Napier);
- Built form and massing (setbacks and height);
- Architecture;
- Street furniture;
- Traffic management;
- Signage; and
- Relationships between buildings and the abutting public street or square.

1.4 GUIDELINES FOR SMALLHOLDINGS

Smallholdings are often seen as an opportunity for residential development in rural areas. Whilst activities in smallholdings are not necessarily agriculture, agricultural related activities may be very prominent in these areas. Smallholdings are normally seen as a transition zone between urban and rural, therefore it is important to adopt appropriate broad guidelines for these areas.

Whilst rural land needs to be made available for small scale agricultural production (i.e. allotments), the provincial approach is to prevent further development of extensive residential lifestyle properties (i.e. smallholdings) in the rural landscape. Smallholdings could be established on suitable land inside the medium to longer term urban edge.

The following broad guidelines / actions are proposed:

1.4.1 Smallholdings are to be located within the Urban Edges of towns.

1.4.2 The PSDF guidelines are that plots should not be larger then 1ha within urban edge. They should not be smaller than 10has outside of the urban edge.

1.4.3 Zoning schemes should be amended to make available appropriate zone for this category.

1.4.4 Only activities that would promote a rural environment, agriculture and local tourism should be permitted in this zone.

1.4.5 The following uses should be supported:

- Dwelling unit
- Agriculture
- Home industry

Uses that would require the consent of Council:

- Additional house
- Bed and breakfast
- Guest house / guest farm
- Nursery
- Kennels

- Keeping of animals
- Agricultural industry

1.4.6 Prevent the establishment of new smallholding areas.

1.4.7 Prevent the intrusion of non-conforming land used.

1.4.8 Adopt a rates and service charges policy to support rural activities within smallholding areas.

(sources: *Rural Land Use Planning and Management Guidelines, 2009; Napier SDF, 2002; City of Cape Town SDF, 2009; and Cape L'Agulhas SDF, 2006)*

1.5 HISTORIC AND ARCHITECTURAL GUIDELINES

1.5.1 Prepare and approve Urban Design, Architectural and Landscape Guidelines for all main roads through towns in the Municipality.

1.5.2 These guidelines should link with the gateway character and sense of arrival at the entrances to the settlements should be protected and enhanced, see Section 1.3.

1.5.3 Compile historical, architectural / aesthetic guidelines for the historic district of the town to ensure that developments (buildings, structures, features, etc.) compliment the historic character.

1.5.4 Protect and enhance the heritage of older precincts of settlements such as, inter alia, Bredasdorp, Napier, Arniston and Struisbaai through the establishment of a historic conservation overlay zone.

1.5.5 Renovation / restoration that may be required must be carefully planned and carried out with due consideration to the historic significance and scale of the buildings in the area.

1.6 GUEST ACCOMMODATION GUIDELINES

In order to deal with the high demand for tourist and guest accommodation in the different settlements, it is proposed to prepare and adopt a policy for guest accommodation. This policy should include bed and breakfast or guesthouse accommodation as well as self-catering apartments, backpackers' lodges, resort accommodation, etc.

The assessment criteria for these various forms of accommodation should include

- The appropriate use and land use parameters e.g. single, residential, business, etc. and whether it's a primary use or consent use.
- Explanation of what the land use entails and what types of land use activities are associated with the land use.
- Description of the typical scale of the development as determined by its physical size (i.e. height, coverage, floor area ratio) and the number of occupants / guests (i.e. beds, staff, rooms).
- Description of the desirable characteristics of the location and of the land use.
- Clarification of the use of self-catering facilities.
- Clarification regarding the serving of alcoholic beverages.
- List of typical ancillary facilities that can be used by guests.
- Clarification regarding the permanent residence of the owner or management.
- Parking requirements, off-street and on-street.
- Provision for loading and/or deliveries.
- Provision of staff facilities and accommodation.
- Size and location of outdoor signage.
- Mitigating the impact of the land use on the surrounding environment.

(source: *City of Cape Town Guest Accommodation Policy, 2009; Napier SDF, 2002)*

1.6.1 Bed and Breakfast

In the interim of adopting this policy the following parameters are proposed to be applicable for bed and breakfast establishments on a residential property:

- The owner of the property or operator must reside on the property;
- The primary use of the property shall remain as a dwelling for the living accommodation of the owner with his/her family;
- Meals and personal services are supplied by the owner/occupant to resident guests only who have permanent residence elsewhere;

- Where a bed and breakfast establishment is considered, interleading rooms shall be required to ensure that the area can convert back to a dwelling house;
- Category A: permitted as-of-right for not more than 5 people or 5 rooms, whichever is the most restrictive;
- Category B: permitted as a consent for not more than 15 people or 10 rooms, whichever is the most restrictive;
- Not more than 2 people may be employed for this purpose.

1.6.2 Guest House

A guest house refers to an owner-managed business of making tourist accommodation available for guests of not less than six and not more than fifteen bedrooms. It may be conducted from a converted dwelling house or a purpose built facility.

Guest houses exceed the size of a bed and breakfast establishment. The higher land use intensity therefore requires stricter control over its location to ensure that potential nuisance impact is restricted to locations / areas with higher land use activity.

The following parameters should be applicable for a guest house establishment on a residential property:

- One parking bay per guest bedroom shall be provided;
- Meals and beverages shall be supplied to transient guests only;
- A site development plan must be submitted to Council which illustrate the layout number of rooms, entertainment areas, parking, landscape, signage / streetscape;
- The manager / owner can reside either off-site, or in a separate area on-site; and
- Ancillary activities include a restaurant (not for the general public) and conference facilities for residents' guests only.

1.7 SIGNAGE POLICY

The current use of the Standard Regulations regarding Advertisement Signs i.t.o Ordinance 20 of 1974 by the Municipality and the SA Manual for Outdoor Advertising Control (SAMOAC) that was prepared by DEAT should be formalized into an updated policy for the Municipality.

Therefore, a detailed advertising policy for the CAM should be prepared and approved to deal with all outdoor advertising in all areas of the Municipal area. This policy should not detract from the architectural character of the areas and to assist in protecting those important historical elements that appeal to both residents and visitors of the towns in the Municipality.