

12. GENADENDAL, BEREAVILLE AND VOORSTEKRAAL

12.1 TOWN ANALYSIS

12.1.1 OVERVIEW

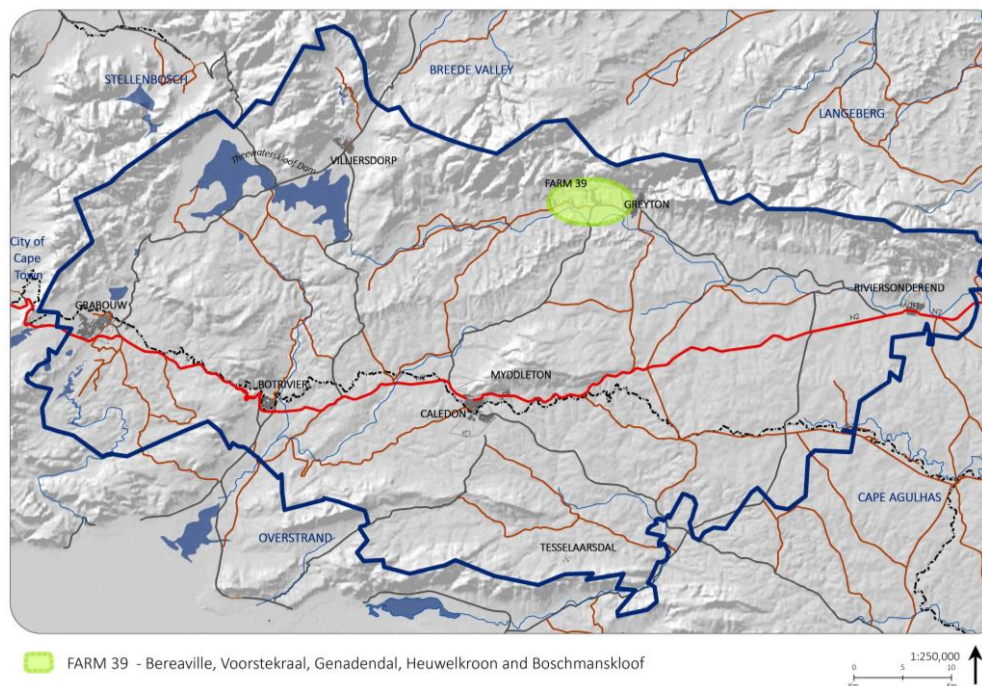


Figure 12.1: Location of Genadendal within TWKM

- Genadendal, Bereaville and Voorstekraal are all individual settlements but are collectively referred to as Genadendal.
- Genadendal's function within the overall municipal perspective is that of a rural settlement.
- Genadendal is a unique settlement and established as a missionary centre.

Table 12.1: Farm 39 at a Glance

| Genadendal at a Glance | |
|----------------------------------|---|
| Total population | 5 663 (2011 Census) 6 662 (2018 MYPE) |
| Growth rate (2011 – 2018) | 2.4% per annum |
| Role and function | Agricultural rural node |
| Settlement classification | Rural node |
| Comparative locational advantage | Tourism attraction Oldest missionary settlement Historic precinct and unique streetscapes Country town character Natural setting Urban agriculture and small scale farming |
| Economic base | Agriculture Tourism |
| Growth potential (GPS, 2014) | Medium growth potential Low socio-economic need |
| Housing backlog | 79 persons |

12.1.2 HISTORIC BACKGROUND

Genadendal's function within the overall municipal perspective is that of a rural settlement. The following subsections serve to provide the background to understanding the unique qualities and complexities of the Genadendal settlements. These characteristics ultimately need to be reflected in the spatial

development proposals.

Land tenure and the transformation process have been well documented in a number of documents. To date this process has not been resolved and is still in process. This has a significant impact on development proposals for the settlements. In terms of applicable municipal legislation, TWKM is not allowed to invest in infrastructure, where the Municipality is not the owner of the land. Investment in the area collectively described as Farm 39 therefore remains a challenge.

Very little of the proposals that were contained in the 2012 SDF have realized since the adoption thereof. The opinion is held that the reason for this is the transformation process not being concluded. Once this process is concluded, clear direction can be provided with regard to investment in the area. As a result of the aforementioned, the development proposals for the settlement have not been changed during this review process.

12.1.3 SETTLEMENT ANALYSIS

Analyses of (i) the biophysical and agricultural environments in and around Farm 39, (ii) the socio-economic profile and (iii) the built environment within Farm 39 were undertaken to inform the spatial proposals that are presented in the following sections. Refer to **Annexure 1, subsection 7**. The analyses focused on the following aspects:

- **biophysical and agricultural environment:**

- the environmental status quo.

- **socio-economic:**

- economic systems;
- residential patterns;
- income distribution;

- demographics.

- **built environment:**

- movement network;
- social facilities distribution and access;
- engineering infrastructure.

12.1.4 KEY SPATIAL CHALLENGES/ISSUES

- Local Economic Development:

- High level of poverty exists.
- The need for a balance between conservation requirements (of the natural and man-made environment), the historic sense of place characteristics and the need for sustainable development that aim to eradicate poverty.
- Lack of industrial and business erven, which limits economic development and growth in Genadendal, Berea and Voorstekraal.
- No clearly demarcated town centre in any of the settlements.

- Socio-economic

- Limited economic activities and social facilities.

- Housing Backlog:

- The subsidised housing backlog¹ is 79 persons (DoHS database, 2018).

- Transformation Process:

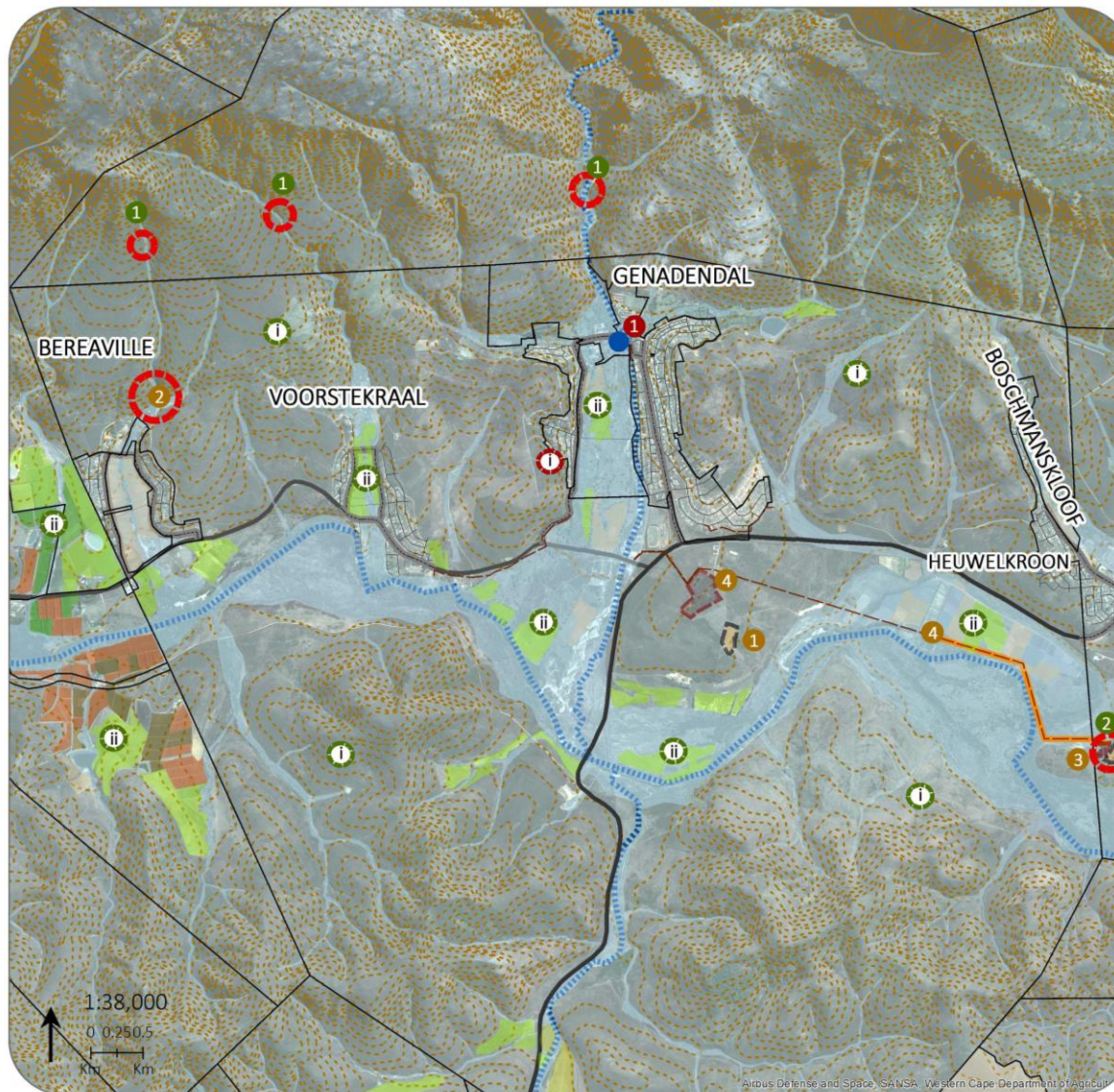
¹ Housing backlog = number of informal structures and does not include backyarders or farm workers on the waiting list.

- The tenure transformation process should be concluded before TWKM may invest in engineering infrastructure within the settlements.

12.1.5 DEVELOPMENT INFORMANTS AND CONSTRAINTS

- The Sonderend River and its tributaries, which skirt the southern boundaries and flow through Genadendal, Voorstekraal and Bereaville, are an important ecological corridor. Wetlands and/or floodplain areas associated with the Sonderend River system are similarly an important part of this ecological corridor.
- These corridors are environmentally sensitive, subject to flooding and should be safeguarded from development
- The settlements are enclosed by physical, biophysical and ecological constraints i.e. the Sonderend Mountains with steep slopes and sections of critical endangered vegetation.
- The fertile soil areas within the settlements, where gardens ("tuine") have developed.
- The fertile valleys where agricultural developments called the "paglande" and "saailande" are being cultivated.

The following figure illustrates the combined opportunities and constraints identified for Farm 39. These need to be considered when planning for future development within the town.



OPPORTUNITIES & CONSTRAINTS

BIOPHYSICAL

- ① Settlements dependant on single water sources - Water supply must be diversified
- ② Greyton's existing sewerage works currently polluting water courses affecting larger region
- i Pristine surrounding natural/ rural environment
- ii Fertile agricultural land
- iii Existing heritage assets as an opportunity to initiate heritage - linked tourism

SOCIO-ECONOMIC

- ① Lack of economic opportunities
- Farm worker evictions and back yards leading to need for low income housing
- Opportunity to develop heritage linked tourism

BUILT ENVIRONMENT

- ① Landfill site closure and rehabilitation costs
- ② Water treatment works needs to be upgraded
- ③ Greyton's existing wwtw works currently polluting water courses, affecting larger region
- ④ Opportunity to link Greyton and Genadenda service infrastructure vetoed by transformatio community
- Isolated communities & no integration with Greyton
- Land available for development but development stalled due to transformation process and land ownership
- Status of bulk infrastructure and associated costs
- Opportunity to link development prospects with Greyton

Figure 12.2: Genadendal, Bereaville and Voorstekraal: Combined Opportunities and Constraints

12.2 PROPOSALS

12.2.1 THE SPATIAL DEVELOPMENT CONCEPT

(i) The Spatial Vision

Maintain and conserve the cultural significance and historic sense of place within the Genadendal settlements while encouraging tourism development.

(ii) The Spatial Concept Plan (Figures 12.3 to 12.5)

The following main structuring elements informed the spatial vision and future growth potential of Farm 39:

▪ Nodes:

- Genadendal, Voorstekraal and Berea;
- The 'werf' area located to the north of Genadendal.

▪ Paths/Routes

- R406, which links the three settlements;
- The main spine routes, which branch off from the R406 and provide access into the Genadendal settlements.

▪ Edges

- The Sonderend Mountains;
- The Sonderend River and its tributaries that bisect the settlements.

▪ Districts

- The 'tuingronde'

▪ Landmarks

- The 'werf' in Genadendal.



Figure 12.3: Genadendal: Spatial Concept

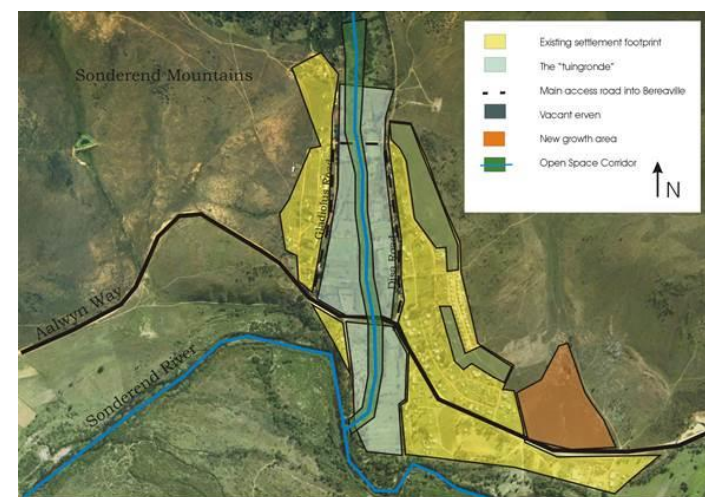


Figure 12.4: Voorstekraal: Spatial Concept

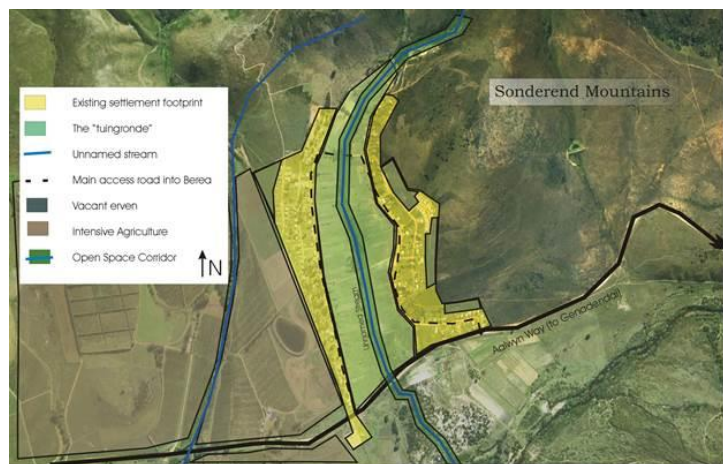


Figure 12.5: Bereaville: Spatial Concept

(iii) Principles for Implementing the Spatial Concept

■ Encourage:

- Limited densification of residential areas north of the R406;
- small scale farming activities on the 'tuingronde' and suitable agricultural production of the commonage ('buite-meent', 'paglande' and 'saailande').

■ Promote:

- the protection of cultural landscape character of Genadendal;
- Genadendal as a tourism destination and as a centre for education;
- sustainable small scale farming development.

■ Restrict:

- urban development that will have a significant visual impact;

- development over ridgelines;
- any large-scale heavy/noxious industrial development;
- large-scale residential development on the commonage ('buite-meent') until the process for the Transformation of the Rural Areas Act, 1998 (Act 94 of 1998) is completed.

■ Maintain / Protect

- the open space corridors created by the Baviaans River, other drainage channels, 'saailande' and 'tuine';
- Genadendal as a rural village.

■ Contain:

- development within the urban edges of the 'buitepost'.

(iv) Spatial Restructuring

■ Spatial and Social Integration

- the development of a peripheral economic zone along the main access road into Genadendal to promote the development of non-residential land uses (i.e. tourist facilities, accommodation).
- Optimising the utilisation of sport grounds in Genadendal and the caravan park in Voorstekraal by residents of all the settlements.

■ Densification

- General densification principles i.e. infill development, subdivisions, second dwelling units, which should be encouraged within the urban footprint in areas where densification practices will not have a detrimental impact on the cultural landscape.

▪ **New Growth Areas**

- Genadendal: Future growth is proposed south of the R406, north eastern direction and near 'Kersiedorp'.
- Voorstekraal: A minor extension is proposed in an eastern direction.

12.2.2 POPULATION GROWTH AND LAND USE REQUIREMENTS

Based on population projections and historic trends for Genadendal, the population growth rate was 2.4% per annum between 2011 and 2018. Assuming an average population growth rate with a slight decrease of 2.2% per annum, it is estimated that ±21 ha of greenfield areas is required to address the projected housing needs for the next 10 years (a total estimated population of 8 266 by 2028). However, considering the proposed densification measures included in **Table 12.2**, only ±0.1 ha of greenfield areas is required. The table also sets out the projected need for urban growth up to 2028.

Table 12.2: Farm 39: Projected Land Requirements

| Proposed densification strategy | | |
|---|---|---------------------------|
| Densification | Assumption | Units |
| Vacant erven | 5% vacant erven developed | 60 |
| 2nd Dwellings | 2% of single residential erven developed (excluding high density areas) | 181 |
| Sub-divisions | 2% of single residential erven developed (excluding high density areas) | 181 |
| Sub-total (Density of 20 du/ha): | | 422 (±21.1 ha) (A) |

Residential projections and allocation assumptions:

| Density Category | % of Population | Average Household Size | Density |
|------------------|-----------------|------------------------|---------|
| Low Density | 20% | 3 | 10du/ha |
| Medium Density | 30% | 4 | 20du/ha |
| High Density | 50% | 5 | 35du/ha |
| Subsidy housing | - | 5 | 35du/ha |

Projected residential units and required area up to 2028 (additional 1 604 people)

| Density Category | Existing Housing Backlog | Population Increase | Units Required | Land Required (Ha) |
|--------------------------------|--------------------------|---------------------|----------------|--------------------|
| Low Density Housing | - | 310 | 103 | 10 |
| Medium Density Housing | - | 482 | 121 | 6 |
| High Density Housing | - | 812 | 162 | 5 |
| Current Subsidy Housing Demand | - | - | - | - |

Units and area required for residential growth: **386** **21 (B)**

New residential growth are required (including densification): B-A=C: -0.1 (C)

| Community facilities requirements for current need and future population growth up to 2028: 6 662 persons (2018) plus additional 1 604 persons = 8 266 (2028) * | | | | |
|--|-----------------------------|--|--------------------------------------|----------------------------|
| Community Facilities | Population threshold | Space Requirement per Facility (ha) | Number of Facilities Required | Required Space (ha) |
| ECDC/Crèche | 2 400 | 0.02 | - | - |
| Primary School | 4 000 | 2.8 | - | - |
| Secondary School | 5 000 | 4.8 | - | - |
| Skills Training Facility | as per need | 0.2 | 1 | 0.2 |
| Primary Health Clinic | 5 000 | 0.2 | - | - |
| Library | 400 | 0.05 | - | - |
| Community Centre | 10 000 | 0.2 | - | - |
| Parks (neighbourhood) | 0.5 ha/1 000 | | - | - |
| Grass field | 2.3 | | - | - |
| Fire Station | 60 000 | 0.3 | - | - |
| Police Station | 60 000 | 0.1 | - | - |
| Area required for facilities: | | | | 0.2 (D) |
| Total greenfield area required (C + D): | | | | 0.1 ha |

* The CSIR Guidelines (2015) were used to determine the social facilities requirements. The estimated total population for 2028 was used to determine the total number of required social facilities. The existing social facilities were subtracted from the total number required to calculate the number of new facilities. The Social Infrastructure Accessibility Study for the Theewaterskloof Municipality (2018) was also studied.

** Note that the area could be reduced if community facilities are clustered and shared, e.g. school shared sportsfield. Alternatively, existing facilities can be upgraded to provide for improved and additional services.

12.2.3 URBAN EDGE

For the proposed alignment of urban edges for the Genadendal settlements the following were taken into consideration, namely:

- The historically and culturally significant fabric such as the 'werf', certain residential areas, garden allotments, trees, etc. impact on future growth directions.
- Protecting the unmodified landscapes abutting urban land use areas, including the Sonderend Mountains, Snyerskraal Hills, Sonderend River, etc.
- Steep slopes, the Baviaans River, watercourses and drainage canals, and undevelopable flood prone areas, Critical Biodiversity Areas and core agricultural land.
- The Transfer process of ownership of the commonage (Act 94 of 1998) has not yet been finalized at the time of completion of this document.
- According to the population projections for Genadendal and its 'buiteposte', only ± 0.1 ha is required to accommodate the projected urban growth for the next ten years.

The proposed urban edges for the Genadendal settlements are illustrated on **Plans 12.1 and 12.2**.

12.3 SECTOR STRATEGY: BIOPHYSICAL ENVIRONMENT AND AGRICULTURE

The biophysical sensitive environment should be managed and protected from inappropriate urban development in these areas. In this regard, the riverine

environment of the Sonderend River and its tributaries, as well as the wetlands and floodplain associated with the river, are of particular importance, which functions as an ecological corridor and linear open space system.

Considering the natural environment surrounding Farm 39 and Greyton, it is proposed to explore the opportunity of extending the north-south environmental corridors located between the settlements for conservation purposes. It is recommended that a study be undertaken to determine the possible extent of such a nature reserve, what appropriate land uses can be accommodated within the reserve and to develop a sustainable management plan for the reserve.

12.4 SECTOR STRATEGY: SOCIO-ECONOMIC

12.4.1 Industrial Development

Small scale light industrial/service trade activities must be encouraged to establish as indicated in **Plans 12.1 and 12.2**. Light industrial/service trade activities will be limited to light service type of industries that will not have a negative or detrimental impact on the character of the surrounding area.

12.4.2 Tourism

The tourism sector within the settlements is underdeveloped and existing resources, such as the Werf area, are not capitalized on. It is recommended that the Theewaterskloof Tourism Strategy should explore the possibility of collaboration between the existing tourism sector of Greyton and settlements within Farm 39. Collaborative efforts such as hiking trails, mountain biking trails, heritage tours, etc. should be developed and encouraged.

12.4.3 Economic Development

The communities of Voorstekraal and Bereaville are isolated from the business facilities located in Genadendal as a result of the historic development pattern of the settlements. No formal CBD area exists in any of the settlements, which contribute towards the infiltration of business uses into the residential areas.

Given the urban framework of the settlements, the development of formal CBD areas is very unlikely. It can also be argued that directing commercial growth into a specific area may have a negative impact on the organic development pattern of the settlements.

In light of the above, non-residential activities along Strydom Street may be appropriate, where land uses of a higher intensity can be allowed. An area of increased commercial activity adjacent to the Werf is also supported. However, commercial development should not be limited to this particular location alone.

Given the small population and limited urban extent of Bereaville and Voorstekraal, it is not recommended to create commercial nodes. Home occupation and house shops, where residents are allowed to conduct business from their residential premises, should be allowed, where the proposals will not have a negative or detrimental impact on the surrounding settlement.

12.4.4 Agri-Hub Programme

The Department of Rural Development and Land Reform has identified Genadendal as a location to establish a Farmer Production Support Unit (FPSU), as part of their Agri-Hub programme. An FPSU is a rural small-holder farmer outreach and capacity building unit. It is based in a town or settlement that can link these farmers with markets. The unit accommodates primary collection, limited storage and processing for the local markets and extension services, which could include mechanisation.

The Genadendal FPSU should augment the existing formal agri-sector facilities and services, as well as providing additional handling, storage, processing, mechanisation and support services. It is estimated that approximately 1 800 m² of building space would be required. A site should be identified with sufficient space for this initiative.

Due to the private ownership of the settlement, further detail and investigation with regard to engineering services to be required by the FPSU will need to be undertaken. The visual impact along the R406 route should also be determined

and mitigated if required.

12.5 SECTOR STRATEGY: BUILT ENVIRONMENT

It is not proposed to expand on the urban edge as contained in the 2012 SDF. The reason for this decision is that the beneficiary list for Genadendal through the transformation process has not yet been finalized and approved. It is therefore not possible to determine if additional land will be required for further urban development. Many properties within Genadendal are also still undeveloped.

12.5.1 Population Growth and Land Use Requirements

Based on the population projections that were completed for Genadendal, Bereaville and Voorstekraal, the settlements will have a combined estimated population of 8 266 residents by 2028. According to the Community Survey of 2016, the average household size for these settlements was 3.2 persons. It is therefore estimated that these settlements will have approximately 2 583 households by 2028. In order to accommodate the above growth in population, an estimate of 0.1 ha of greenfield areas will be required, when densification measures are implemented.

12.5.2 Residential

There is sufficient space available within the settlements to accommodate the immediate future demand.

12.5.3 Cemeteries

The cemetery has sufficient space to accommodate the needs of the community in the long term.

12.5.4 Social Facilities

The projected population growth in **Table 12.2** and the CSIR Guidelines for the Provision of Social Facilities (2015) were used to determine the required social

facilities by 2028. Cognisance was also taken of the current and future need identified in the Social Infrastructure Accessibility Study for the Theewaterskloof Municipality (2018). Note that the Social Infrastructure Accessibility Study's estimated required schools seem excessive compared to the CSIR Guidelines. Based on the above, the estimated population growth to 2028, only a skills training facility would be required.

12.5.5 Densification and development of vacant land

Limited densification has been observed since the adoption of the 2012 SDF and therefore the densification proposals contained in that particular document are carried into this version of the SDF.

The objective of the Genadendal Transformation process in accordance with the Transformation of Rural Areas Act, 1998 (Act 94 of 1998) is to identify those areas to be classified as common property and to transfer these into a legal entity. Until the process is finalised, these areas cannot be considered as part of the densification calculations. The following densification guidelines for Genadendal are recommended. Refer to **Figure 12.6** for the location of the planning areas.

Table 12.3: Genadendal: Densification Guidelines

| PLAN AREA | EXISTING DENSITY | TARGET DENSITY | PRIVATE VACANT ERVEN | PUBLIC VACANT ERVEN | PROPOSED DENSIFICATION MEASURE |
|-----------|------------------|----------------|----------------------|---------------------|--|
| A | 20du/ha | 25du/ha | 81 | - | Second dwelling units, subdivisions- encourage subdivisions to secure land tenure. |
| B | 12du/ha | 20du/ha | 64 | - | Higher density infill development on privately owned land; second |

| PLAN AREA | EXISTING DENSITY | TARGET DENSITY | PRIVATE VACANT ERVEN | PUBLIC VACANT ERVEN | PROPOSED DENSIFICATION MEASURE |
|-----------|------------------|----------------|----------------------|---------------------|---|
| | | | | | dwelling units, smaller subdivisions; extended dwelling units. |
| C | 5du/ha | 5du/ha | 5 | - | No densification should be encouraged. Any development need to be sensitive to the character of the Werf. |
| D | 15du/ha | 20du/ha | 24 | - | Second dwelling units, smaller subdivisions/ extended dwelling units. |
| E | 14du/ha | 20du/ha | 126 | - | Second dwelling units, smaller subdivisions; extended dwelling units. |
| F | 9du/ha | 15du/ha | 13 | - | Second dwelling units, smaller subdivisions; extended dwelling units. |
| G | 14du/ha | 20du/ha | 76 | - | Second dwelling units, smaller subdivisions, extended dwelling units. |
| H | 20du/ha | 25du/ha | 81 | - | Second dwelling units, subdivisions- encourage subdivisions to secure land tenure. |

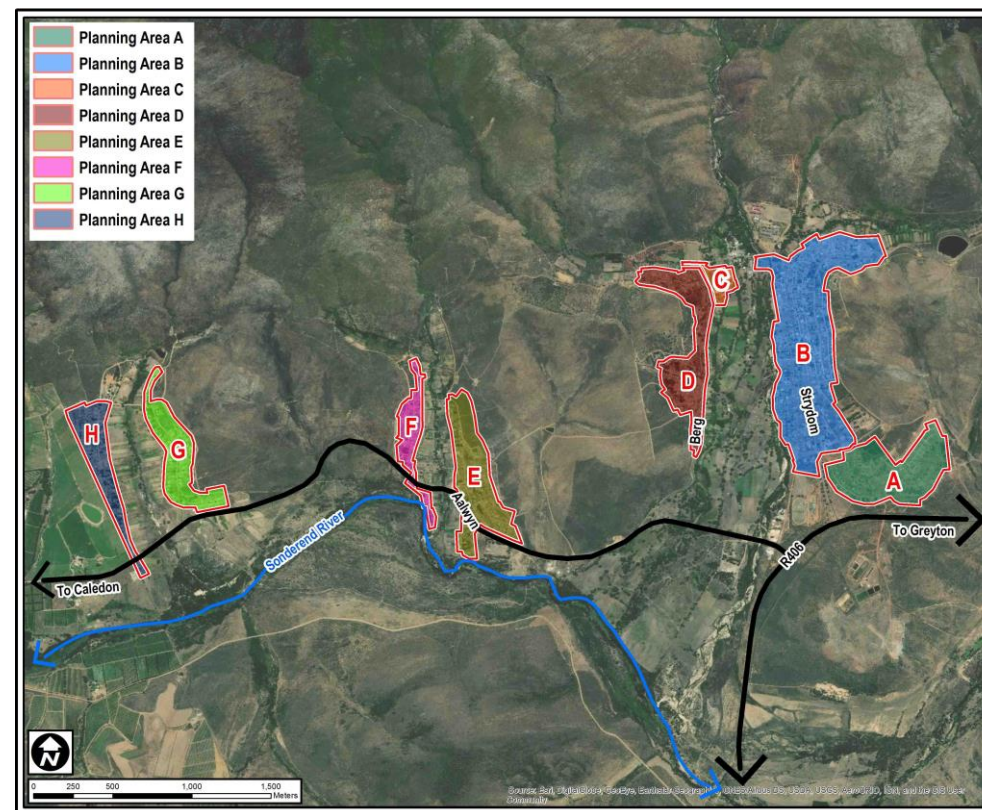


Figure 12.6: Genadendal, Bereaville and Voorstekraal: Densification Planning Areas

12.5.6 Heritage

(i) Genadendal:

Five precincts with heritage value are proposed for Genadendal:

- Precinct A: Strydom Avenue and Volks Weg contain clusters of Cape Vernacular cottages, although some of them have been substantially altered. The area above Strydom Street (with views over the valley) is

being redeveloped with new and more modern homes, whilst the area between Strydom Avenue and the river have retained more of its streetscape values.

- Precinct B: The Moravian Mission Werf is of extreme high heritage significance and all the buildings have been restored to their former status.
- Precinct C: Clusters of Cape Vernacular cottages in Berg Street have been restored and re-thatched. Where these clusters occur they offer a historic streetscape.
- Precinct D: Clusters of Cape Vernacular cottages were observed, most needing repairs and restoration. At the top of the road there is an old home that could be an old farmstead.
- Precinct E: The original garden lots of Genadendal have significant historic value and also form a central open space feature.

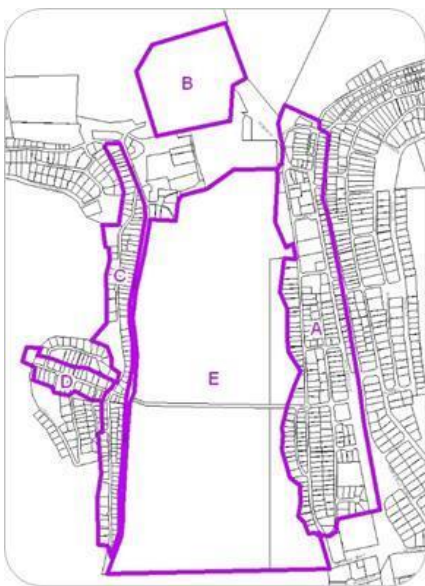


Figure 12.7: Genadendal: Heritage Precincts

(ii) Bereaville:

Bereaville was an extension of the mission settlement at Genadendal. It was established in 1864 and a church and a parsonage were built in 1865. Four precincts with heritage value are identified:

- Precinct A: The original Moravian church, the old parsonage (now a Post Office) and the old school make up this precinct. The church and parsonage have been well maintained and occupy a prominent place in the village, with views over the entire village.
- Precinct B: The original garden lots that were allocated to the residents of Bereaville, appears as a large open space on both sides of the riverbank. The water furrow can still be seen where it runs along the main feeder road.
- Precinct C: Some Cape Vernacular architecture can still be seen in this precinct, but most buildings have been substantially altered and modernized. Local stone, clay and timber would have been used to build the homes.
- Precinct D: Some Cape Vernacular architecture can still be seen, although, as in Precinct C, many buildings have been substantially altered. The elegant but simple design of the second Church of the village in this precinct adds to its heritage value.

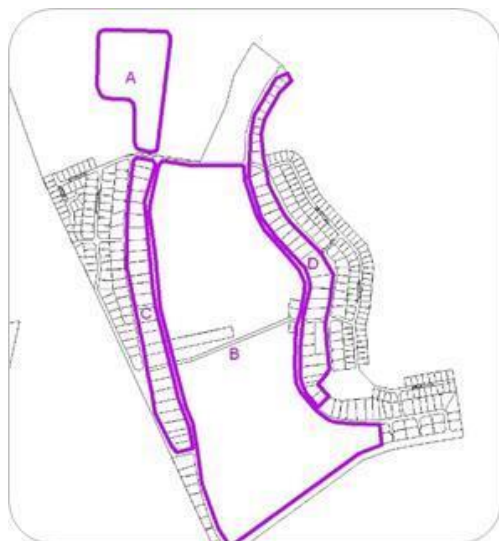


Figure 12.8: Bereaville: Heritage Precincts

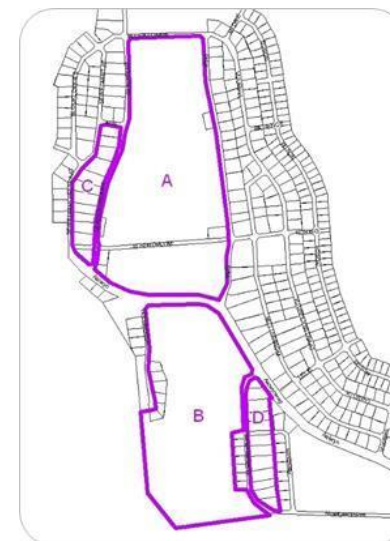


Figure 12.9: Voorstekraal: Heritage Precincts

(iii) Voorstekraal:

Four precincts of interest are proposed for Voorstekraal:

- Precinct A: Precinct A consists of original garden lots that were farmed by the residents. It has high heritage value.
- Precinct B: Precinct B consists of original garden lots that were farmed by the residents. It also has high heritage value.
- Precinct C: Some Cape Vernacular architecture can still be seen in Gladiolus Street, but most homes have been substantially altered. This precinct was proposed as a conservation area in 2002.
- Precinct D: Some Cape Vernacular architecture can still be seen in Nuwejaarsblom Street but this area has low heritage value due to neglect of buildings and new buildings overwhelming the precinct, thus negatively impacting the streetscape value.

12.6 SECTOR STRATEGY: INTEGRATION

12.6.1 Spatial Context

The main spatial challenge is accessibility to community facilities, businesses and recreation areas located in Genadendal for people living in Bereaville and Voorstekraal. The majority of people living in the latter two settlements do not have access to private transport.

12.6.2 Spatial and Social Integration Proposals

▪ Integration Areas

The development of a peripheral economic zone along the main access road into Genadendal will improve accessibility to non-residential land uses and community facilities. A pedestrian walkway and cycle route

(NMT) should be encouraged along this street.

Consideration should be given to extending the existing NMT routes along the R406 between Voorstekraal and Genadendal, i.e. the pedestrian walkways and cycle routes to Bereaville in order to improve accessibility towards Genadendal.

- Integration Spaces

Improve the quality of open spaces, recreation areas and community facilities. The use thereof should be rationalised between the three settlements, which should facilitate social integration.

Proposed integration spaces include the sport grounds in Genadendal and the Stoomdrift Caravan Park in Voorstekraal.

12.7 PRIORITY DEVELOPMENT AREAS AND SPECIAL STRATEGIC INTERVENTIONS AND SPATIAL PROJECTS

No Priority Development Areas have been identified for Farm 39. The extension of the Greyton-Genadendal nature reserve has been identified which require more detailed studies and precinct planning.