

Karoo Hoogland

LOCAL MUNICIPALITY



*Annual Water Services Development Plan Performance- and
Water Services Audit Report*

*for IDP incorporation as directed by the Water Services Act (Act
108 of 1997)*

October 2021

Version and Approval Record

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| <i>Version 1</i> | First Draft | May 2017 | Karoo Hoogland L M WSDP IDP Input Report |
| <i>Version 2</i> | | | |
| <i>Version 3</i> | | | |
| <i>Approval</i> | | | |

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Municipal Manager

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Foreword

The Karoo Hoogland LM is authorized in terms of the Municipal Structures Act (Act No. 117 of 1998) and the Municipal Structures Amendment Act (Act No. 33 of 2000) as the Water Services Authority for its area of jurisdiction and therefore has a duty, as assigned to it in terms of the Water Services Act (Act No. 108 of 1997), to all consumers or potential consumers to progressively ensure efficient, affordable, economical and sustainable access to water services.

The Karoo Hoogland WSA has elected to perform the water services provision function and is therefore also the Water Services Provider (WSP) including the functions of bulk water provision, water reticulation, sewerage services and bulk wastewater collection and treatment to the towns and villages in its area of jurisdiction.

The Water Services Act, 1997 (Act No. 108 of 1997) places a duty on Water Services Authorities to prepare a Water Services Development Plan as part of the process of preparing any integrated development plan. Section 15 (5) of the Water Services Act, 1997 states that:

A water services development plan must form part of any integrated development plan contemplated in the Local Government Transition Act, 1993 (Act No. 209 of 1993).

The purpose of this report is to provide relevant and summarized water services development planning inputs for incorporation into the Karoo Hoogland integrated development planning process.

Abbreviations and Definitions

| | |
|-------------|---|
| DWS | Department of Water and Sanitation |
| BDS | Blue Drop Certification System |
| FY: | Financial Year - means in relation to – <ul style="list-style-type: none"> • a national or provincial department, the year ending 31 March; or • a municipality, the year ending 30 June. |
| GDS | Green Drop Certification System |
| IDP: | Integrated Development Plan - An IDP is a legislative requirement for municipalities which identifies the municipality's key development priorities; formulates a clear vision, mission and values; formulates appropriate strategies; shows the appropriate organizational structure and systems to realize the vision and the mission and aligns resources with the development priorities. |
| MFMA | Local Government: Municipal Finance Management Act, 2003 (Act No. 56 of 2003) m ³ cubic meters = 1 000 liter = 1 kiloliter |
| MI | Megaliter = 1 000 kiloliter = 1 000 000 liter |
| SDBIP: | Service Delivery Budget Implementation Plan; is a management, implementation and monitoring tool that enable the Municipal Manager to monitor the performance of senior managers, the Mayor to monitor the performance of the Municipal Manager, and for the community to monitor the performance of the municipality. |
| WSA: | Water Services Authority - means a municipality with the executive authority and the right to administer water services as authorized in terms of the Municipal Structures Act, 1998 (Act No. 117 of 1998) |
| WSDP: | Water Services Development Plan – means the plan to be developed and adopted by the WSA in terms of the Water Services Act, 1997 (Act No. 108 of 1997) Modular tool which has been developed by the DWS to support Water Services Authorities in complying with the Water Services Act with respect to Water Services Development Planning and which is also used by the DWS to regulate such compliance |
| WSP: | Water Services Provider - means any person or institution who provides water services to consumers or to another water services institution, but does not include a water services intermedite |

Introduction

The Karoo Hoogland LM is authorized in terms of the Municipal Structures Act (Act No. 117 of 1998) and the Municipal Structures Amendment Act (Act No. 33 of 2000) as the Water Services Authority for its area of jurisdiction and therefore has a duty, as assigned to it in terms of the Water Services Act (Act No. 108 of 1997), to all consumers or potential consumers to progressively ensure efficient, affordable, economical and sustainable access to water services.

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The purpose of this report is to provide relevant and summarized water services development planning inputs for incorporation into the Karoo Hoogland integrated development planning process and is structured as follows:

Section A - Status Quo Overview: Providing a summarized view of the water services status quo in terms of the water services functional business elements as aligned to the WSDP framework.

Section B - WSDP Performance Report : Presents the status of- and references the water services development plan of the Water Services Authority.

Section C - Water Services Audit Report : An overview of the WSA's assessment and interpretation of its water services, with specific focus on problem definition statements.

Section D - Approval and Publication Record: Approval of report by relevant stakeholders.

Section A: Status Quo Overview

The abbreviated status quo overview of the Karoo Hoogland water services function is presented in the next sections in terms of the water services functional business elements as aligned to the WSDP framework.

Demographics: Map of Water Services Authority Area of Jurisdiction

Figure A1.1: Location of WSA within DM/ Province

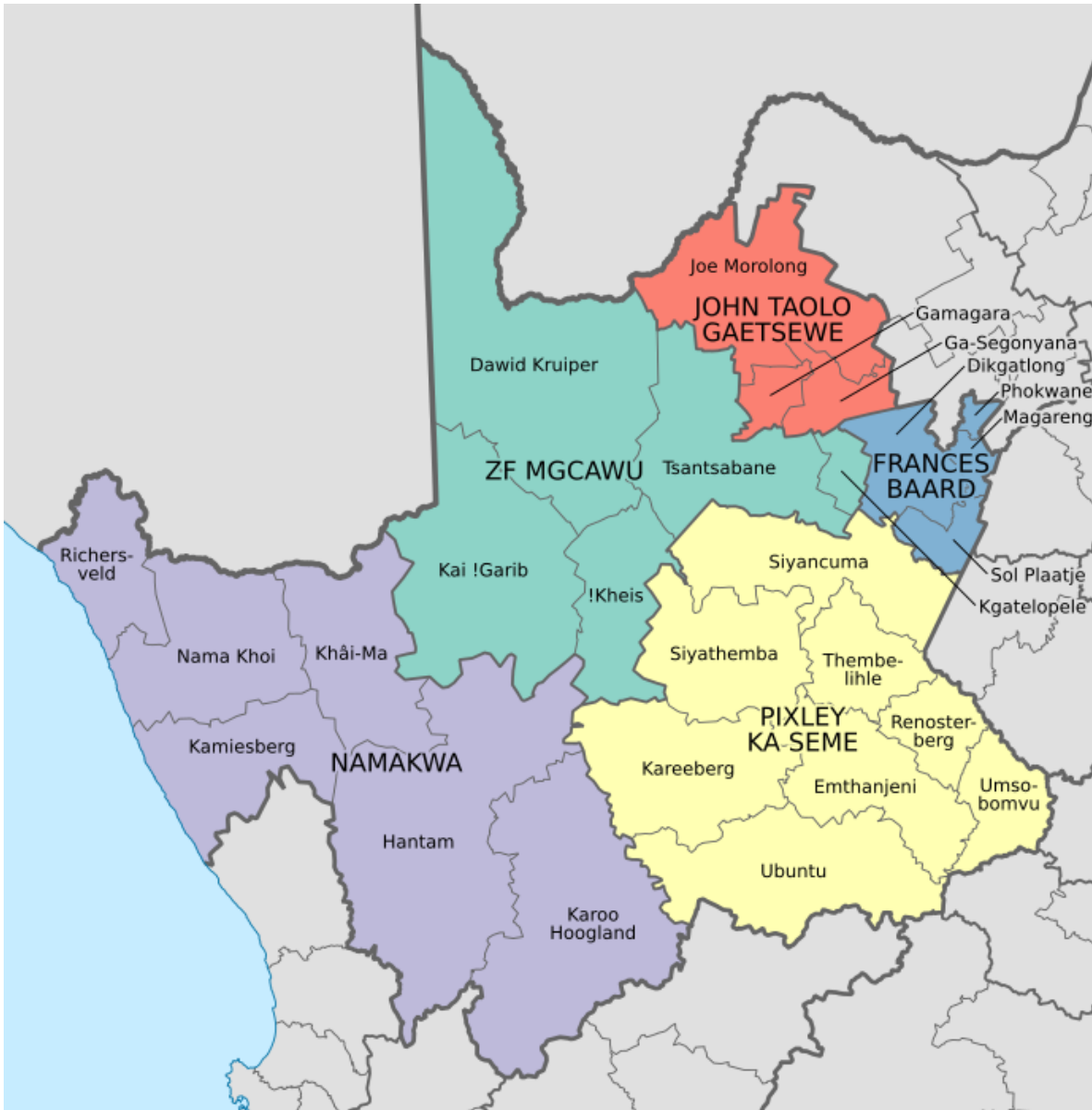


Figure A1.2: Map of WSA area of jurisdiction



Table A2.1: Water services administrative structure

| Accounting Officer | |
|---------------------------|--|
| Designation: | Municipal Manager |
| Name: | J Fortuin |
| Telephone Nr: | 053 391 3003 |
| Fax Nr: | 053 391 3294 |
| Cell Nr: | 082 072 9645 |
| Email: | munman@karoohoogland.gov.za |
| WSA Manager | |
| Designation: | Director: Infrastructure |
| Name: | F.J.Lotter |
| Telephone Nr: | 053 391 3003 |
| Fax Nr: | 053 391 3294 |
| Cell Nr: | 083 655 1438 |
| Email: | f.lotter@karoohoogland.gov.za |
| WSP Manager | |
| Designation: | Director: Infrastructure |
| Name: | F.J.Lotter |
| Telephone Nr: | 053 391 3003 |
| Fax Nr: | 053 391 3294 |
| Cell Nr: | 083 655 1438 |
| Email: | f.lotter@karoohoogland.gov.za |
| WSDP Manager | |
| Designation: | Director: Infrastructure |
| Name: | F.J.Lotter |
| Telephone Nr: | 053 391 3003 |
| Fax Nr: | 053 391 3294 |
| Cell Nr: | 083 655 1438 |
| Email: | f.lotter@karoohoogland.gov.za |
| IDP Manager | |
| Designation: | Manager Community service |
| Name: | A Gibbons |
| Telephone Nr: | 053 391 3003 |
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A3: Water services overview

The Karoo Hoogland LM comprises of three towns namely Williston, Fraserburg and Sutherland. The table below provides an overview of the settlements within the WSA area of jurisdiction, with their corresponding population and household numbers, as per the WSA's water services planning baseline figures. It should be emphasized that the 2011 household and population figures have been aligned with the Census 2011 which determined the following for the Karoo Hoogland LM:

| | |
|---|--------|
| Number of households per Census 2011: | 3840 |
| Population per Census 2011: | 12 591 |
| Average number of people per household: | 3 |

STATS SA growth rates to the 2011 baseline figures as follows:

Growth rate at 2011: 1.8%

The resulting household and population figures are aligned with the DWS National Geo-referenced Database which forms the baseline for the WSDP Guide Framework.

The water services levels of the respective settlements are illustrated in the context of its adequacy (as per the WSDP Guide Framework definitions).

Table A.1 Water services overview (water & Sanitation)

| Settlement Type | 2011* | | 2016 | | Water category | | | | | | | | Sanitation category | | | | | | | | | | | | | | | |
|--|------------|--------------|------------|------------|------------------|--------------------|---------------------------|----------------------------|----------------|---------------------------|----------------------------|-------------------------------------|-----------------------|---------------------|------------------|--------------------|---------------------------|----------------------------|----------------|---------------------------|----------------------------|-------------------------------------|-----------------------|---------------------|----------|--|--|--|
| | Households | Population | Households | Population | Adequate: Formal | Adequate: Informal | Adequate: Shared Services | Water resources needs only | O&M needs only | Infrastructure needs only | Infrastructure & O&M needs | Infrastructure, O&M & Resource need | No Services: Informal | No Services: Formal | Adequate: Formal | Adequate: Informal | Adequate: Shared Services | Water resources needs only | O&M needs only | Infrastructure needs only | Infrastructure & O&M needs | Infrastructure, O&M & Resource need | No Services: Informal | No Services: Formal | | | | |
| URBAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Formal Town | | | | | Adequate | | | Below RDP | | | | | None | | Adequate | | | Below RDP | | | | | None | | | | | |
| Williston | 727 | 3368 | | | ☒ | | | | | | | | | | ☒ | | | | | | | | | | | | | |
| Fraserburg | 852 | 3029 | | | ☒ | | | | | | | | | | ☒ | | | | | | | | | | | | | |
| Sutherland | 630 | 2836 | | | ☒ | | | | | | | | | | ☒ | | | | | | | | | | | | | |
| Sub-Total | | 9233 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Townships | | | | | Adequate | | | Below RDP | | | | | None | | Adequate | | | Below RDP | | | | | None | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Sub-Total: (Urban) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| RURAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rural Small Village | | | | | Adequate | | | Below RDP | | | | | None | | Adequate | | | Below RDP | | | | | None | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Rural Scattered | | | | | Adequate | | | Below RDP | | | | | None | | Adequate | | | Below RDP | | | | | None | | | | | |
| | 0 | 3355 | 0 | 0 | ☒ | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sub-Total | 0 | 3355 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Working towns & service centres | | | | | Adequate | | | Below RDP | | | | | None | | Adequate | | | Below RDP | | | | | None | | | | | |
| | 0 | 0 | 0 | 0 | ☒ | | | | | | | | | | ☒ | | | | | | | | | | | | | |
| | | | | | ☒ | | | | | | | | | | ☒ | | | | | | | | | | | | | |
| Sub-Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Farming | | | | | Adequate | | | Below RDP | | | | | None | | Adequate | | | Below RDP | | | | | None | | | | | |
| | | 0 | 0 | 0 | ☒ | | | | | | | | | | ☒ | | | | | | | | | | | | | |
| | | | | | ☒ | | | | | | | | | | ☒ | | | | | | | | | | | | | |
| Sub-Total | 0 | 9233 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Sub-Total (Rural) | 0 | 3355 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| TOTAL | 0 | 12588 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |

Section B: WSDP Performance Report

B1: WSDP reference and status

The residential water services delivery access profile for Karoo Hoogland LM has been aligned with the Census 2011 definitions and is presented in Table A.3 and Table A.4 below. It is emphasized that the access profile does not consider quality- or adequacy of services. The past year water services access profile is compiled from the water services planning baseline figure and includes as Year-2 (FY2013), the Census 2011 profile for the Karoo Hoogland Local Municipality.

The access profile represents a WSA perspective and hence, includes all settlements located within the municipal boundary. It should therefore be emphasized that the level of service provided to households in farming- and other privately serviced areas are included in the profiles, and that it can be stated that:

- The municipal records confirm that a basic- or higher level of water service has been implemented to its communities.
- Census 2011 access profiles for households within farming areas have been applied and have not been otherwise confirmed by the WSA.

Figure A.2: Household water access profile

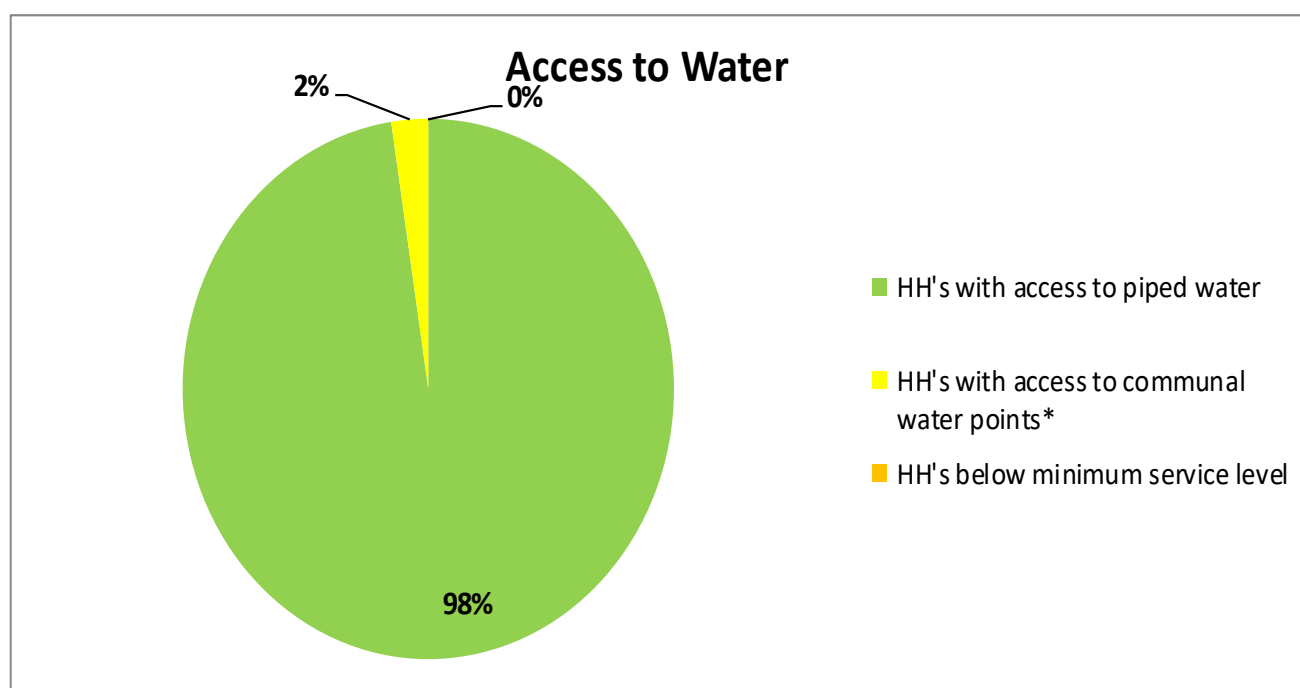
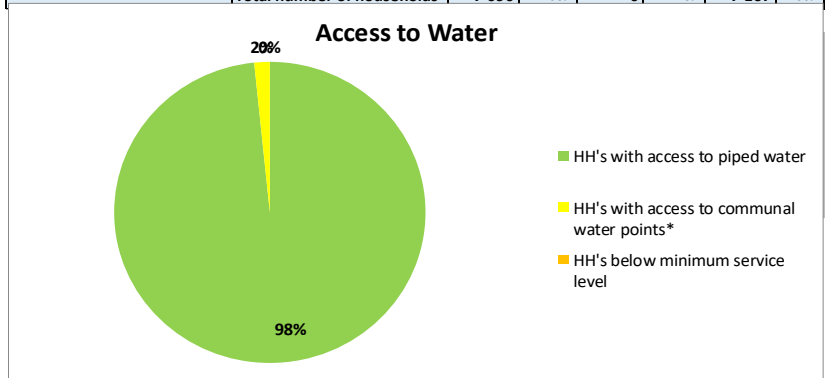


Table A.3: Residential water services delivery access profile: Water

| Census Category | Description | Year 0 | | Year -1 | | Year -2 | |
|---|---|--------------|-------------|----------|-----------|--------------|-------------|
| | | 2021 | | 2020 | | 2019 | |
| | | Nr | % | Nr | % | Nr | % |
| | WATER (ABOVE MIN LEVEL) | | | | | | |
| Piped (tap) water inside dwelling/institution | House connections | 2 209 | 31% | | | 2 209 | 31% |
| Piped (tap) water inside yard | Yard connections | 4 767 | 67% | | | 4 767 | 67% |
| Piped (tap) water on community stand: distance less than 200m from dwelling/institution | Standpipe connection < 200 m | 114 | 2% | | | 114 | 2% |
| | Sub-Total: Minimum Service Level and Above | 7 090 | 100% | 0 | 0% | 7 090 | 99% |
| | WATER (BELOW MIN LEVEL) | | | | | | |
| Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution | Standpipe connection: > 200 m < 500 m | | | | | 57 | 1% |
| Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling/institution | Standpipe connection: > 500 m < 1 000 m | | 0% | | | 21 | 0% |
| Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution | Standpipe connection: > 1 000 m | | | | | 15 | 0% |
| No access to piped (tap) water | No services | 0 | 0.0% | | | 60 | 1% |
| | Sub-Total: Below Minimum Service Level | 0 | 0.0% | | | | 0% |
| | Total number of households | 7 090 | 100% | 0 | 0% | 7 167 | 100% |

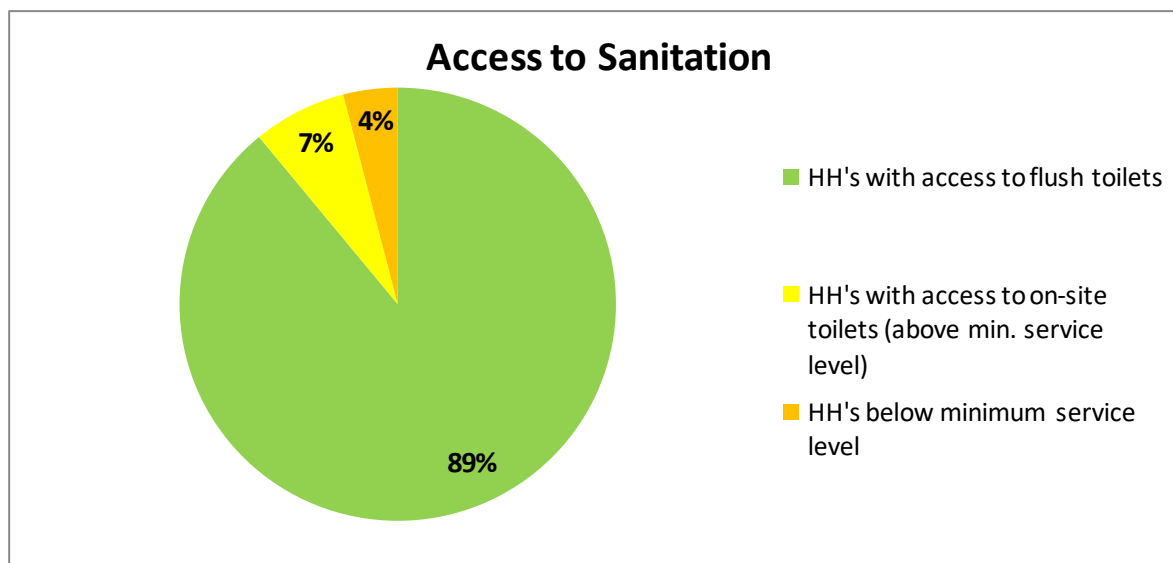


B2: Performance on water services objectives and strategi

Table A.4: Residential water services delivery access profile: Sanitation

| Census Category | Description | Year 0 | | Year -1 | | Year -2 | |
|---|---|--------------|-------------|--------------|------------|--------------|-------------|
| | | 2021 | | 2020 | | 2019 | |
| | | Nr | % | Nr | % | Nr | % |
| | SANITATION (ABOVE MIN LEVEL) | | | | | | |
| Flush toilet (connected to sewerage system) | Waterborne | 822 | 22% | 822 | 22% | 822 | 22% |
| | Waterborne: Low Flush | | 0% | | 0% | | 0% |
| Flush toilet (with septic tank) | Septic tanks / Conservancy | 595 | 16% | 595 | 16% | 595 | 16% |
| Chemical toilet | | 0 | 0% | | 0% | 81 | 2% |
| Pit toilet with ventilation (VIP) | Non-waterborne (above min. service level) | 89 | 2% | 89 | 2% | 89 | 2% |
| Other (UDS) | | 792 | 22% | 792 | 22% | 792 | 21% |
| | Sub-Total: Minimum Service Level and Above | 2 298 | 63% | 2 298 | 63% | 2 379 | 64% |
| | SANITATION (BELOW MIN LEVEL) | | | | | | |
| Pit toilet without ventilation | Pit toilet | 432 | | 432 | | 432 | 0% |
| Bucket toilet | Bucket toilet | 159 | 4% | 159 | 4% | 159 | 4% |
| Other toilet provision (below min. service level) | Other | | | | | | |
| No toilet provisions | No services | 768 | | 768 | | 768 | 0% |
| | Sub-Total: Below Minimum Service Level | 1 359 | 37% | 1 359 | | 1 359 | 36% |
| | Total number of households | 3 657 | 100% | 2 457 | 0% | 3 738 | 100% |

| | Year 0 | Year -1 | Year -2 |
|--|--------|---------|---------|
| Graph inputs: | | | |
| HH's with access to flush toilets | 39% | 39% | 38% |
| HH's with access to on-site toilets (above min. service level) | 24% | 24% | 26% |

Figure A.5: Household wastewater access profile

The residential water services delivery adequacy profile as presented in Table A.5 below aligns with the service level categories of the WSDP Guide Framework and considers the water resources-, operational- and infrastructure needs of the water services provided by the Karoo Hoogland Local Municipality. When interpreting the adequacy profile, it should be recognized that a specific settlement or area serviced by the

municipality, may have more than one need and hence, that provision is made for double counting of households, where such duplicate needs have been identified. It should also be emphasized that where areas are serviced privately such as households residing on farms, that the adequacy service level has been identified as Adequate: Informal as per the guidelines for the DWS Reference Framework, meaning that any infrastructure development needs (as may be evident from the access profile) is not assigned for implementation by the Karoo Hoogland municipality.

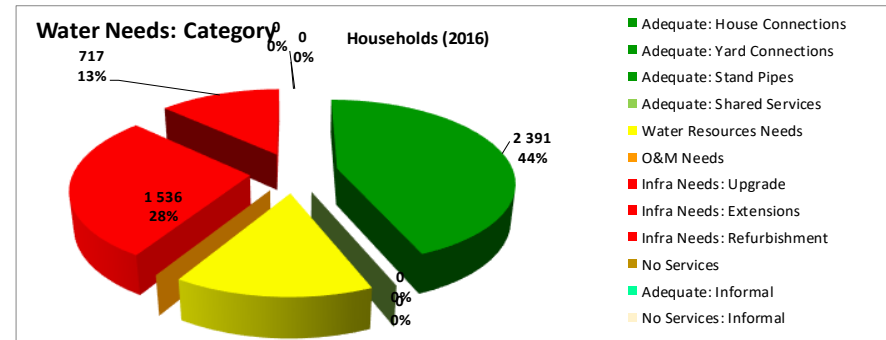
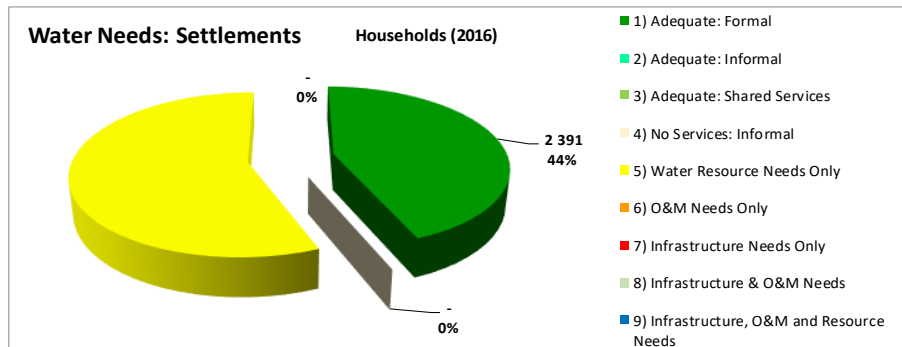
The adequacy profile is sourced from the water services planning information base as aligned with the Department of Water and Sanitation reference framework. The adequacy profile represents a WSA perspective and hence, includes all settlements located within the Karoo Hoogland municipal boundary.

The Karoo Hoogland LM water services adequacy profile contains the following needs:

1. Even though services have been established in the urban areas of Karoo Hoogland, the water- and wastewater services are deemed to be inadequate due to bulk water infrastructure capacity restrictions. Furthermore, there is a need of refurbishment in Karoo Hoogland for both its water and wastewater infrastructure.

Table A.5 (a): Residential water services delivery adequacy profile (Water)

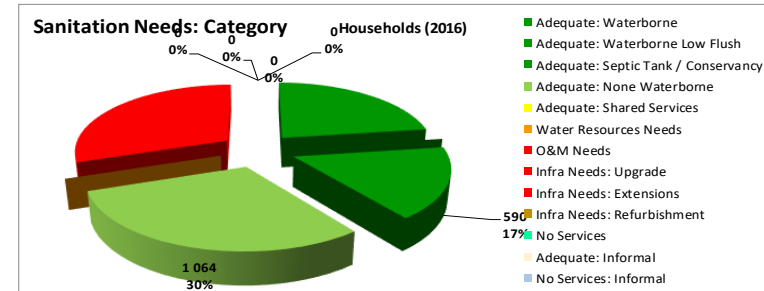
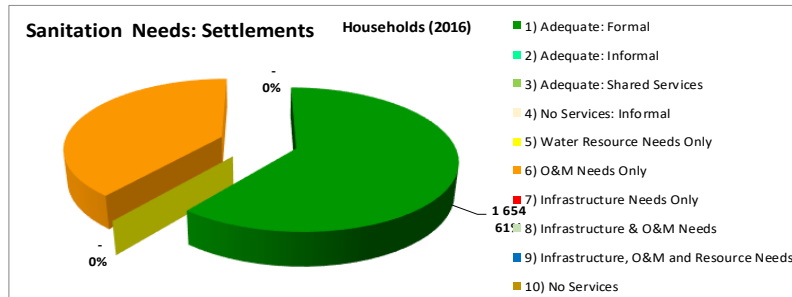
| Water Categorisation | Number of settlements | FORMAL | | | | | | | | | | | | | | | | | | INFORMAL | | | | | | | |
|--|-----------------------|-------------------|------|------------------|---|-------------|---|-----------------|-----|----------------------|---|-------------|---|----------------------|----|-----|----|----|---|-------------|---|----------|---|-------------|---|----|---|
| | | Adequate | | | | | | | | Water Resource needs | | O & M Needs | | Infrastructure Needs | | | | | | No services | | Adequate | | No services | | | |
| | | House Connections | | Yard Connections | | Stand Pipes | | Shared Services | | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % |
| | | HH | % | HH | % | HH | % | HH | % | | | | | | | | | | | | | | | | | | |
| 1 | 3 | 2 391 | 100% | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 2 | | | | | | | 819 | 34% | | | | | 1 536 | 64 | 717 | 30 | | | | | | | | | | |
| 6 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Household Interventions required | | 2 391 | | 0 | | 0 | | 0 | | 819 | | 0 | | 1 536 | | 717 | | 0 | | 0 | | 0 | | 0 | | 0 | |



| | | | | | | | | | |
|---|--------------------|---|---------------------------|---|-----------------------------------|---|----------------------------------|----|--------------------------------------|
| 1 | Adequate | 3 | Adequate: Shared services | 5 | Water Resources Needs <u>Only</u> | 7 | Infrastructure Needs <u>Only</u> | 9 | Infrastructure, O&M & Resource Needs |
| 2 | Adequate: Informal | 4 | No Services: Formal | 6 | O & M Needs <u>Only</u> | 8 | Infrastructure & O&M needs | 10 | No Services |

Table A.5 (b): Residential water services delivery adequacy profile (Wastewater)

| Water Categorisation | Number of settlements | FORMAL | | | | | | | | | | | | | | | | | | INFORMAL | | | | | | | | | | |
|----------------------|----------------------------------|------------|-----|----------------------|--|--------------------------|-----|-----------------|-----|-----------------|--|----------------------|---|-------------|---|----------------------|---|----|---|----------|---|-------------|---|----------|---|-------------|---|----|---|----|
| | | Adequate | | | | | | | | | | Water Resource needs | | O & M Needs | | Infrastructure Needs | | | | | | No services | | Adequate | | No services | | | | |
| | | Waterborne | | Waterborne Low flush | | Septic Tank/ Conservancy | | None Waterborne | | Shared Services | | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH |
| 1 | 6 | 802 | 33% | | | 590 | 24% | 1 064 | 43% | | | | | | | | | | | | | | | | | | | | | |
| 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | 49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 0 | | | | | | | | | | | | | 1 064 | | | | | | | | | | | | | | | | |
| 7 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | Household Interventions required | 802 | | 0 | | 590 | | 1 064 | | 0 | | | | 1 064 | | | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 |



| | | | | | | | | | |
|---|--------------------|---|---------------------------|---|-----------------------------------|---|----------------------------------|----|--------------------------------------|
| 1 | Adequate | 3 | Adequate: Shared services | 5 | Water Resources Needs <u>Only</u> | 7 | Infrastructure Needs <u>Only</u> | 9 | Infrastructure, O&M & Resource Needs |
| 2 | Adequate: Informal | 4 | No Services: Formal | 6 | O & M Needs <u>Only</u> | 8 | Infrastructure & O&M needs | 10 | No Services |

B3: Status of water services projects

The Karoo Hoogland municipality owns the water services infrastructure which has been established to service its residents. Three water supply schemes have been established to service the Karoo Hoogland customers:

Bulk Water Infrastructure

Fraserburg

Surface Water

No surface water is utilized in the Fraserburg area.

Groundwater

Boreholes are utilized to provide water to the community. No information on abstraction and yields are available.

Boreholes are equipped with pumps and pipelines, connected to high elevated concrete reservoirs. From the reservoirs it is gravity fed into the reticulation system.

Sutherland

Surface Water

No surface water is utilized in the Sutherland Town Area.

Groundwater

Boreholes are utilized to provide water to the community. Information on abstraction and yields are available.

Boreholes are equipped with pumps and pipelines, connected to high elevated concrete reservoirs. From the reservoirs it is gravity fed into the reticulation system.

The town currently experiences a severe water shortage at present due to an extended drought in the area. Investigations is undertook to extend the bulk water supply network including the drilling and testing of additional boreholes.

Williston

Surface Water

No surface water is utilized in the Williston Town Area

Groundwater

Boreholes are utilized to provide water to the community. No information on abstraction and yields are available. Boreholes are equipped with pumps and pipelines, connected to high elevated concrete reservoirs. From the reservoirs it is gravity fed into the reticulation system.

Water Treatment Capacity

There is WTW at Sutherland constructed in 2018 - 2019 and is in use.

Service Storage

The total storage capacity is 3.0ML.

Waste Water Treatment Works

Fraserburg

Fraserburg has a small sewer reticulation system, 25% are connected directly to the system while an additional 30% are conservancy tanks which are also emptied at the sewage treatment works. The hydraulic capacity of the oxidation ponds is approximately 40 ML.

Sutherland

Sutherland has a small upgraded oxidation pond with a hydraulic capacity of approximately 40 ML. No reticulation, all households make use of conservancy tanks emptied by removal trucks and UDS systems

Williston

Williston has a small, recently upgraded sewer reticulation system with a capacity of 0.2 ML. Only a few erven is connected to the system. No inflow or return flow information was available at the time of compiling this report. Eredication of UDS systems to start in March 2022.

Table B3.1: Water Services projects status and performance

Table B3.1: Water Services projects status and performance

| Nr | Project Title and Description | Inclusion | | Total Project Cost R'000 | Year 0 Performance - 2021 | | | Funding Source(s) | Project Category / Type | Planned Period | | Project Status | Actual Completion Year |
|----|--------------------------------|-----------|-----|--------------------------|---------------------------|----------------|-----|-------------------|-------------------------|----------------|----------|--------------------|------------------------|
| | | WSDP | IDP | | FY Budget R'000 | Expended R'000 | % | | | From FY | To FY | | |
| 1 | Sutherland Emergeny Bulk Water | x | x | 10 000 | 10 000 | 1 600 | 16% | WSIG | water | Jun-21 | Jun-22 | under construction | 2022 |
| 2 | Williston Internal Water | x | x | 23 965 | 13 000 | 1 700 | 13% | MIG | water | Sep-21 | Mart2021 | under construction | 2022 |
| 3 | Williston Sewer | x | x | 11 900 | 1 900 | 0 | 0% | WSIG | sanitation | Mrt 2022 | Jun-22 | not started yet | 2023 |
| 4 | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | |
| 7 | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | |

B4: Past financial year water services project impact declaration

The Karoo Hoogland municipality is the water services provider for its area of jurisdiction. The operations and maintenance function is rendered by the Infrastructure Directorate. Operations and maintenance challenges faced by the Karoo Hoogland municipality is directly related to resources challenges including human resources- and financial resources.

The Karoo Hoogland LM has implemented a comprehensive drinking water sampling programme for its formal water supply scheme, and which includes schemes supplied by groundwater. In terms of the Blue Drop assessment, the Karoo Hoogland Water Services Authority (WSA) achieved a Blue Drop score of 77.10% in 2013 and a significant improvement in overall Blue Drop scores since 2011.

| Blue Drop Score 2013 | Blue Drop Score 2012 | Blue Drop Score 2011 |
|----------------------|----------------------|----------------------|
| 77.10% | 66% | 54% |

The summary from the 2013 report states:

“The risk rating for this system improved during the 2013 evaluation compared to the 2012 risk statement calculated for the system using information from the 2012 Blue Drop Report.

The Municipality is however encouraged to ensure that the necessary supervisory and process

control competencies are developed to ensure compliance with the proposed draft Regulation 17 soon to be promulgated.”

In terms of wastewater services, the Karoo Hoogland LM has achieved a 52.9% Risk Rating during the 2014 assessments. The municipality has actioned the necessary infrastructure refurbishment and upgrades as well as improved operational- and compliance monitoring.

| Risk Rating 2013 | Risk Rating 2012 |
|------------------|------------------|
| 47.1% | 70.6% |

The summary from the 2014 report states:

“The Karoo Hoogland Local Municipality are commended for their efforts in developing a W₂RAP for the pond system and for the existence and implementation of the GDIP. The MIG funding application process intended towards the upgrade of the pond system is reassuring. Well done. The WSI is encouraged to restore the pond system to its original design configuration by replacing the aerators and removing sludge from the ponds. The risk rating has increased from low to medium largely due to the absence of flow data and the associated risk of plant overload.

The lack of process control and supervisory skills is of concern to the Regulator and also contributes to the risk rating. There is clear evidence of support from management and it is expected that with the implementation of the recommendations from the W₂RAP process that the score of 78.36% achieved during 2013 will improve during the current assessment year. The Regulator holds high confidence that Karoo Hoogland could achieve Green Drop Excellence (90%) in 2015. The team’s competency, practical approach, leadership commitment and disciplined preparation for the GWSA 2015 should realise this expectation.”

The Karoo Hoogland LM renders water services to schools and clinics as part of its water provision services to its urban- and rural customers. The municipality does not presently monitor or record the level of services rendered within schools and/or clinics. The billing system of the municipality confirms that accounts are rendered directly to three (3) schools, and to the Department of Public Works.

Local karst dolomite aquifers are being exploited as sole water supply to Daniëlsskuil, capable of supporting high yielding boreholes > 40 l/s. Three production boreholes are currently in use with another two boreholes being available for production following equipping thereof. A borehole have been identified that would supply water to a proposed new reservoir to be erected in Daniëlsskuil.

The Karoo Hoogland Local Municipality, as the Water Services Authority does not have an updated WC/WDM strategy in place for the Daniëlsskuil Cluster. Before introducing measures to encourage water conservation, it is important to have an accurate set of baseline data against which any progress can be measured. The first priority must therefore be to ensure that there is an adequate network of water meters and that accurate reading are recorded on a regular basis.

Insufficient measuring devices (meters) are currently in place to enable the compilation of a comprehensive and detailed water balance. The municipality meters and bills its urban customers for water reticulation services. The average consumption of drinking water in Karoo Hoogland municipality amounts to 3 MI/d. When considering the capacity requirements for the Karoo Hoogland bulk water supply infrastructure, it is evident that the full water consumption is not billed and that water conservation- and demand management measures should therefore be prioritized. Currently, bulk water meters are being installed that will assist water balancing.

The Karoo Hoogland municipality renders the water services provision function including the bulk- and retail functions in their urban areas. Additional resources and capacity requirements for institutional strengthening have been actioned further herein.

The municipality renders a customer services function through its Finance Directorate and which receives customer queries, requests and complaints. These queries, requests and complaints are routed to the Infrastructure Directorate for technical resolution. Improved collaboration and reporting on the customer services function has been further actioned herein

Section C: Water Services Audit Report

C1. Quantity of water services provided (Water Balance)

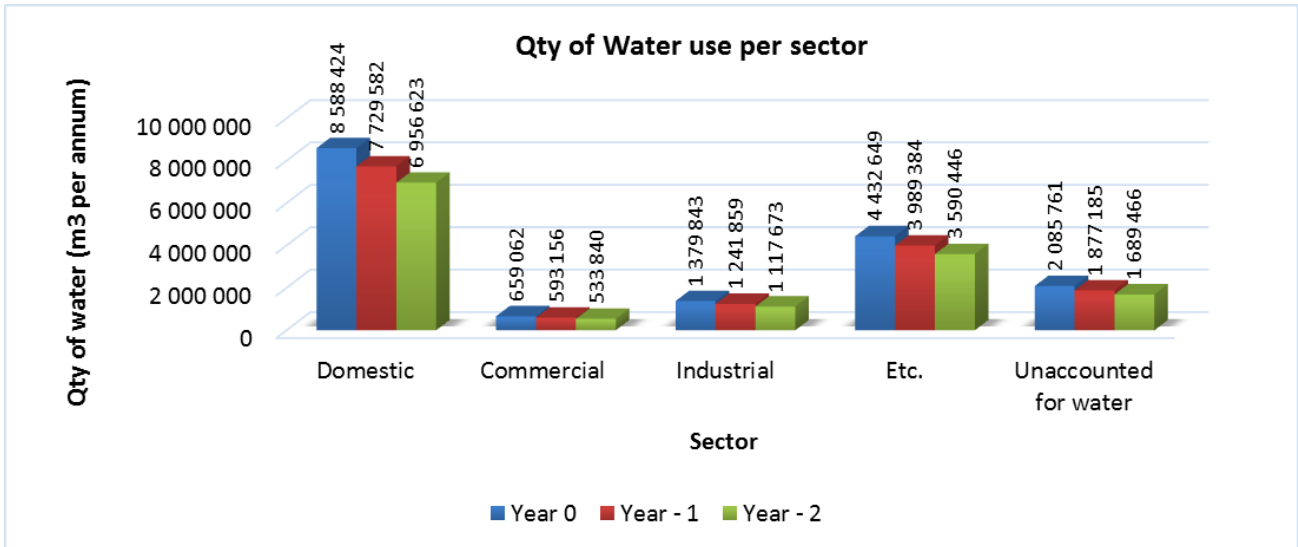
Table C1.1: Quantity of water services provided / water balance (m³ per annum)

| WSDP Ref. # | Regulations Ref. # | Description | m ³ per annum | | |
|-------------|--------------------|--|--------------------------|----------------|----------------|
| | | | Year 0 | Year - 1 | Year - 2 |
| | | | 2021 | 2020 | 2019 |
| | | RAW WATER | | | |
| 7.2.1 | | Surface water purchased | | | |
| 7.1 / 7.2.2 | | Surface water abstracted | | | |
| 7.1 / 7.2.3 | | Ground water abstracted | 132 749 | 118 636 | 90 577 |
| 7.2.14 | | Effluent recycled | | | |
| 7.2.4 | | /less Raw water supplied to others | | | |
| 7.2.5 | | Sub-Total: Raw Water supplied | 132 749 | 118 636 | 90 577 |
| | 10.2 (g) (i) | BULK WATER SUPPLY | | | |
| 7.2.6 | | Volume of water treated | | | |
| 7.2.7 | 10.2 (a) (ii) | Purchased treated water | | | |
| 7.2.7A | | Ground water not treated | 132 749 | 118 636 | 90 577 |
| 7.2.6A | | /less Treated water supplied to others | | | |
| | | Sub-Total: System Input Volume | 132 749 | 118 636 | 90 577 |
| | | WATER CONSUMPTION | | | |
| 7.2.8.1 | | Billed Metered: | 0 | 0 | 0 |
| | 10.2 (a) (i) | Domestic | | | |
| | 10.2 (a) (i) | Commercial | | | |
| | 10.2 (a) (i) | Industrial | | | |
| | 10.2 (a) (i) | etc. | | | |
| 7.2.8.2 | | Billed Unmetered | 0 | 0 | 0 |
| | 10.2 (a) (i) | Domestic | | | |
| | 10.2 (a) (i) | Commercial | | | |
| | 10.2 (a) (i) | Industrial | | | |
| | 10.2 (a) (i) | etc. | | | |
| 7.2.8.3 | | Unbilled Metered | | | |
| 7.2.8.4 | | Unbilled Unmetered | | | |
| | 10.2 (g) (i) | Sub-Total: Authorized consumption | 0 | 0 | 0 |
| | | UNACCOUNTED FOR WATER | | | |
| 7.3.1 | | Raw water bulk loss | 132 749 | 118 636 | 90 577 |
| 7.2.3/7.2.4 | | Billing losses | 12 441 | 8 891 | 6 046 |
| 7.2.5 | | Apparent losses | 0 | 0 | 0 |
| 7.2.5.1 | | Illegal connections | | | |
| 7.2.5.2 | | Inaccurate meters | | | |
| 7.2.5.3 | | Data errors | | | |
| 7.2.6 | | Real losses | 120 308 | 109 745 | 84 531 |
| | 10.2 (g) (ii) | Sub-Total: Unaccounted for water | 265 498 | 237 272 | 181 154 |
| | | WASTEWATER TREATMENT | | | |
| 7.2.9 | 10.2 (a) (iii) | Total received at WWTW | | | |
| 7.2.11 | | Total discharged | 0 | 0 | 0 |
| 7.2.13 | | Returned to environment | | | |
| 7.2.14 | | Recycled | | | |
| | 10.2 (a) (iv) | Quantity of water supplied not discharged to WWTW's | 0 | 0 | 0 |

Table C1.2: Quantity of water services provided / water balance (MI/d)

| WSDP Ref. # | Regulations Ref. # | Description | MI/d | | |
|-------------|--------------------|--|-------------|-------------|-------------|
| | | | Year 0 | Year - 1 | Year - 2 |
| | | | 2021 | 2020 | 2019 |
| | | RAW WATER | | | |
| 7.2.1 | | Surface water purchased | 0.00 | 0.00 | 0.00 |
| 7.1 / 7.2.2 | | Surface water abstracted | 0.00 | 0.00 | 0.00 |
| 7.1 / 7.2.3 | | Ground water abstracted | 0.36 | 0.33 | 0.25 |
| 7.2.14 | | Effluent recycled | 0.00 | 0.00 | 0.00 |
| 7.2.4 | | <i>less</i> Raw water supplied to others | 0.00 | 0.00 | 0.00 |
| 7.2.5 | | Sub-Total: Raw Water supplied | 0.36 | 0.33 | 0.25 |
| | 10.2 (g) (i) | BULK WATER SUPPLY | | | |
| 7.2.6 | | Volume of water treated | 0.00 | 0.00 | 0.00 |
| 7.2.7 | 10.2 (a) (ii) | Purchased treated water | 0.00 | 0.00 | 0.00 |
| 7.2.7A | | Ground water not treated | 0.36 | 0.33 | 0.25 |
| 7.2.6A | | <i>less</i> Treated water supplied to others | 0.00 | 0.00 | 0.00 |
| | | Sub-Total: System Input Volume | 0.36 | 0.33 | 0.25 |
| | | WATER CONSUMPTION | | | |
| 7.2.8.1 | | Billed Metered: | 0.00 | 0.00 | 0.00 |
| | 10.2 (a) (i) | Domestic | | | |
| | 10.2 (a) (i) | Commercial | | | |
| | 10.2 (a) (i) | Industrial | | | |
| | 10.2 (a) (i) | etc. | | | |
| 7.2.8.2 | | Billed Unmetered | 0.00 | 0.00 | 0.00 |
| | 10.2 (a) (i) | Domestic | | | |
| | 10.2 (a) (i) | Commercial | | | |
| | 10.2 (a) (i) | Industrial | | | |
| | 10.2 (a) (i) | etc. | | | |
| 7.2.8.3 | | Unbilled Metered | | | |
| 7.2.8.4 | | Unbilled Unmetered | | | |
| | 10.2 (g) (i) | Sub-Total: Authorized consumption | 0.00 | 0.00 | 0.00 |
| | | UNACCOUNTED FOR WATER | | | |
| 7.3.1 | | Raw water bulk loss | 0.36 | 0.33 | 0.25 |
| 7.2.3/7.2.4 | | Billing losses | 0.03 | 0.02 | 0.02 |
| 7.2.5 | | Apparent losses | 0.00 | 0.00 | 0.00 |
| 7.2.5.1 | | Illegal connections | | | |
| 7.2.5.2 | | Inaccurate meters | | | |
| 7.2.5.3 | | Data errors | | | |
| 7.2.6 | | Real losses | 0.33 | 0.30 | 0.23 |
| | 10.2 (g) (ii) | Sub-Total: Unaccounted for water | 0.73 | 0.65 | 0.50 |
| | | WASTEWATER TREATMENT | | | |
| 7.2.9 | 10.2 (a) (iii) | Total received at WWTW | | | |
| 7.2.11 | | Total discharged | 0.00 | 0.00 | 0.00 |
| 7.2.13 | | Returned to environment | | | |
| 7.2.14 | | Recycled | | | |
| | 10.2 (a) (iv) | Quantity of water supplied not discharged to WWTW's | 0.00 | 0.00 | 0.00 |

Figure C1.1: Quantity of water services provided / water balance



C2. Water services delivery profile

The Karoo Hoogland Local Municipality as the Water Services Authority for its area of jurisdiction developed its latest Water Services Development Plan in 2012. The Karoo Hoogland LM participated in the DWS support programme of 2010 to 2012, wherein the latest WSDP was used to populate DWS WSDP Guide Framework. The municipality then also participated in the assessment of its water services knowledge and plans and the strategic interpretation of its knowledge as established in Module 1 of the WSDP Guide Framework.

In FY2016, the Karoo Hoogland LM was further supported by Petra Diamond Mine to improve its water services planning maturity and compliance with the Water Services Act and resulted in the establishment of its FY2016 Water Services Development Plan (WSDP) and WSDP IDP Input Report. The WSA was also supported to review its water services objectives and strategies as prompted by the situational assessment of its water services function. The outputs from this strategic review process are presented herein for incorporation into the Karoo Hoogland Integrated Development Plan.

It should also be highlighted that additional to the strategic-level water services development plan of the municipality, water services planning is rendered by the municipality at project level.

C2.1 User connection profile

Table C2.1.1: User connection profile: Water

Table C2.1: User Connection Profile

| WSDP Ref. # | Category of users | Water Services | | | | | | New Connections Year 0 |
|-------------|---------------------------------|----------------|-------------|---------------|-------------|--------------|-------------|------------------------|
| | | Year 0 2021 | | Year - 2 2020 | | Year -2 2019 | | |
| | | Nr | % | Nr | % | Nr | % | |
| | RESIDENTIAL (DOMESTIC) | | | | | | | |
| 3.3 | Metered: Uncontrolled | | 0% | | 0% | | 0% | 0 |
| 3.3 | Metered: Controlled* | 2 209 | 100% | 2 209 | 100% | 2 209 | 100% | 0 |
| | Unmetered (flat rate) | | 0% | | 0% | 1 | 0% | 0 |
| | Communal water supply | 0 | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Residential | 2 209 | 100% | 2 209 | 100% | 2 210 | 100% | 0 |
| | EDUCATION | | | | | | | |
| 3.3 | Schools | 0 | 0% | | 0% | | 0% | 0 |
| | Tertiary education facilities | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Education | 0 | 0% | 0 | | 0 | | 0 |
| | HEALTH | | | | | | | |
| 3.3 | Clinics | | 0% | | 0% | | 0% | 0 |
| 3.3 | Hospitals | | 0% | | 0% | | 0% | 0 |
| 3.3 | Health Centres | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Health | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | INSTITUTIONAL | | | | | | | |
| | Public Institutions | | 0% | | 0% | | 0% | 0 |
| 3.3 | Magistrate Offices | | 0% | | 0% | | 0% | 0 |
| 3.3 | Police Stations | | 0% | | 0% | | 0% | 0 |
| 3.3 | Prisons | | 0% | | 0% | | 0% | 0 |
| | etc | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Institutional | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | INDUSTRIAL | | | | | | | |
| 3.3 | Dry industries | | 0% | | 0% | | 0% | 0 |
| 3.3 | Wet industries | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Industrial | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | COMMERCIAL | | | | | | | |
| 3.3 | Businesses | 0 | 0% | | 0% | | 0% | 0 |
| 3.3 | Office Buildings | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Commercial | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | MINING | | | | | | | |
| | | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Mining | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | OTHER | | | | | | | |
| | Agriculture | 0 | 0% | | 0% | | 0% | 0 |
| | Churches | 0 | 0% | 1 | 0% | | 0% | 0 |
| | Unknown | 1 | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Other | 1 | 0% | 1 | 0% | 0 | 0% | 0 |

Note: * means connections which in terms of the by-laws should be metered and controlled, but may include unauthorized connections which are neither presently metered nor controlled

Figure C2.1.1: User connection profile for water

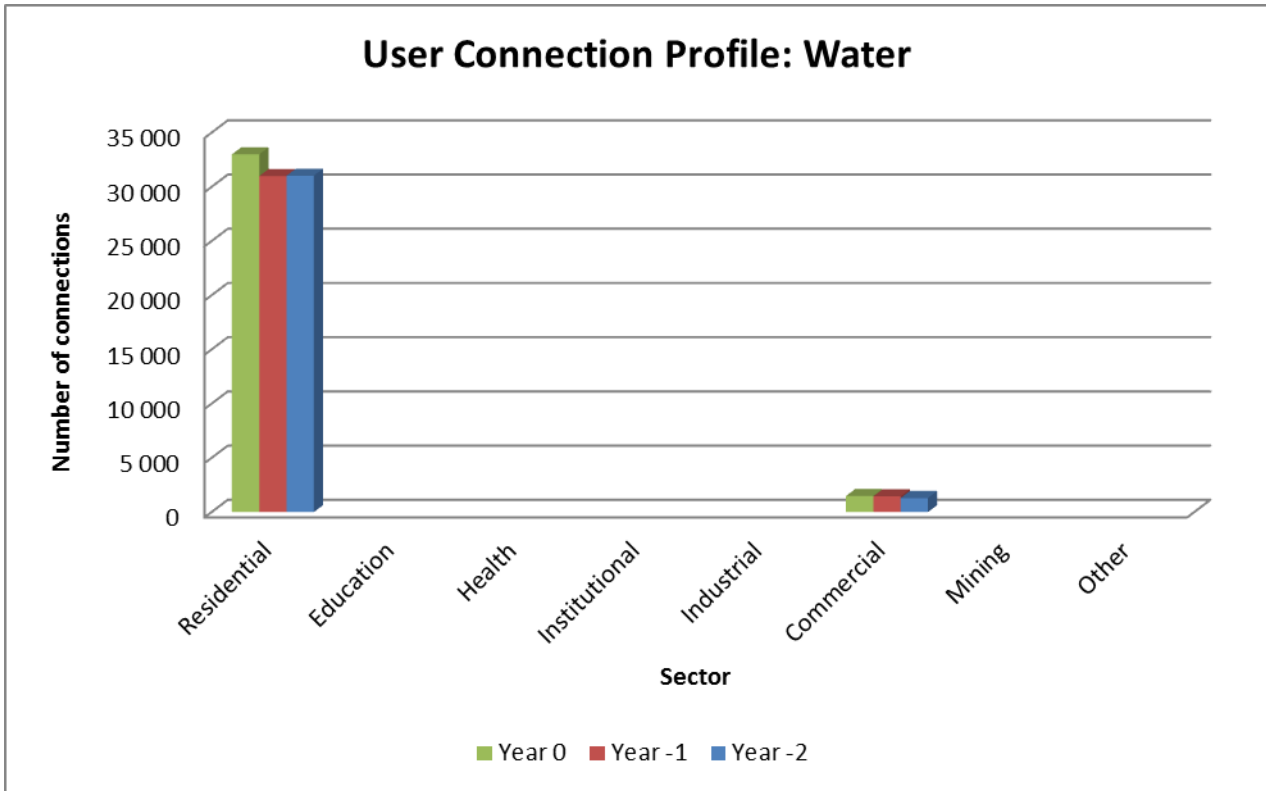


Figure C2.1.2: User connection distribution for water - Year 0

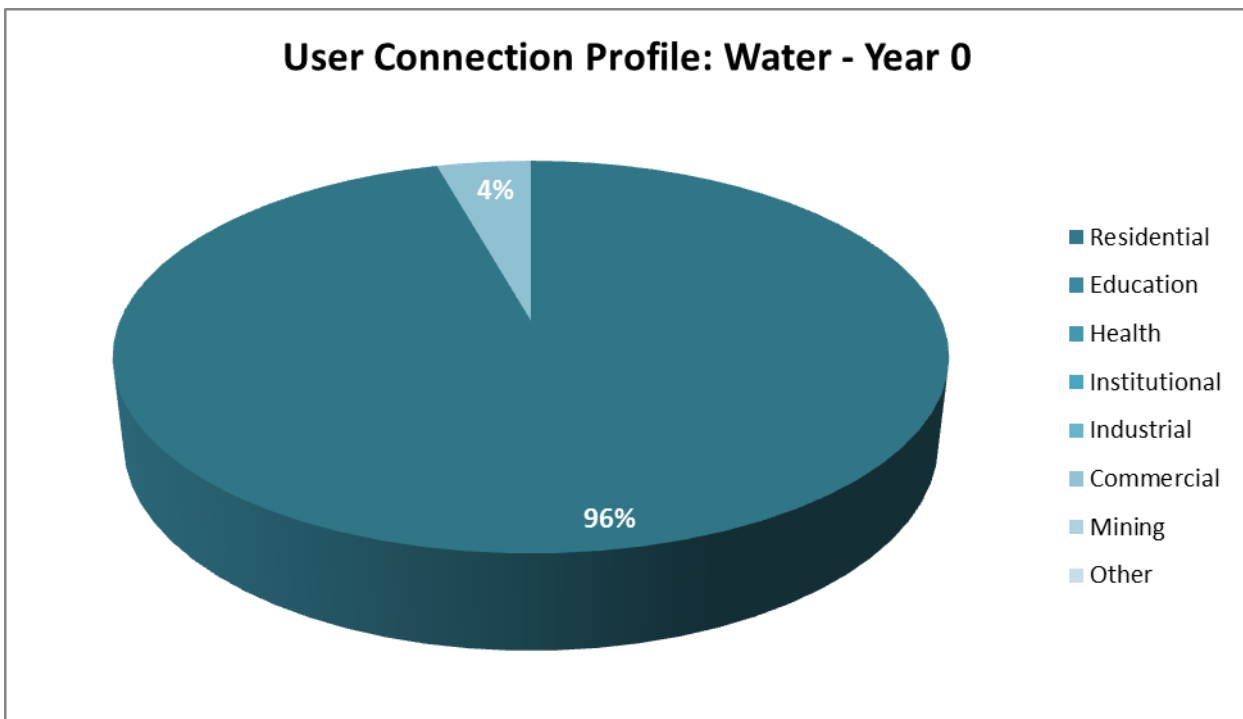


Figure C2.1.3: New connections for water

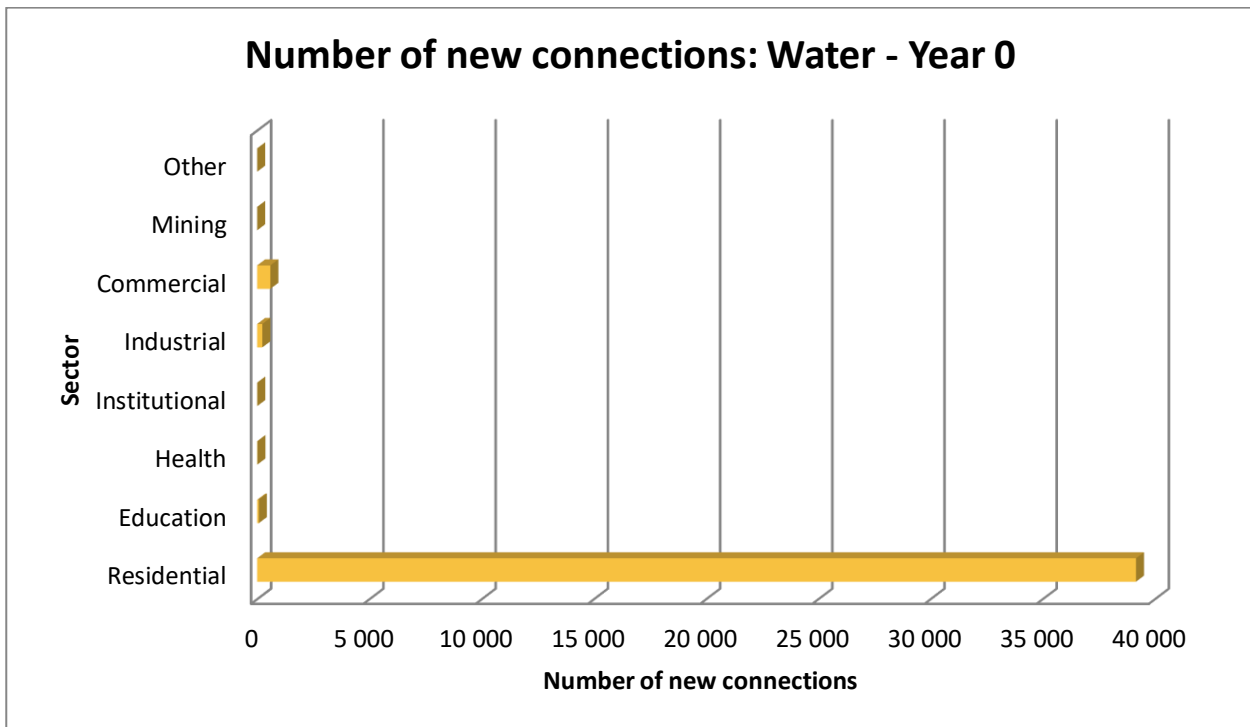


Table C2.1.2: User connection profile: Wastewater

| WSDP Ref. # | Category of users | Wastewater Services | | | | | | |
|-------------|---------------------------------|---------------------|-------------|---------------|-------------|--------------|-------------|------------------------|
| | | Year 0 2021 | | Year - 1 2020 | | Year -2 2019 | | New Connections Year 0 |
| | | Nr | % | Nr | % | Nr | % | Nr |
| | RESIDENTIAL (DOMESTIC) | | | | | | | |
| 3.3 | Metered: Uncontrolled | n/a | | | | | | n/a |
| 3.3 | Metered: Controlled* | n/a | | | | | | n/a |
| | Unmetered (flat rate) | 2 210 | 100% | | 0% | | 0% | 2 210 |
| | Communal water supply | n/a | | | | | | n/a |
| | Sub-Total: Residential | 2 210 | 100% | 0 | 0% | 0 | 0% | 2 210 |
| | EDUCATION | | | | | | | |
| 3.3 | Schools | 0 | 0% | 1 | 50% | | 0% | 0 |
| | Tertiary education facilities | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Education | 0 | 0% | 1 | 50% | 0 | 0% | 0 |
| | HEALTH | | | | | | | |
| 3.3 | Clinics | | 0% | | 0% | | 0% | 0 |
| 3.3 | Hospitals | | 0% | | 0% | | 0% | 0 |
| 3.3 | Health Centres | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Health | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | INSTITUTIONAL | | | | | | | |
| | Public Institutions | | 0% | | 0% | | 0% | 0 |
| 3.3 | Magistrate Offices | | 0% | | 0% | | 0% | 0 |
| 3.3 | Police Stations | | 0% | | 0% | | 0% | 0 |
| 3.3 | Prisons | | 0% | | 0% | | 0% | 0 |
| | etc | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Institutional | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | INDUSTRIAL | | | | | | | |
| 3.3 | Dry industries | | 0% | | 0% | | 0% | 0 |
| 3.3 | Wet industries | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Industrial | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | COMMERCIAL | | | | | | | |
| 3.3 | Businesses | 0 | 0% | | 0% | | 0% | 0 |
| 3.3 | Office Buildings | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Commercial | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | MINING | | | | | | | |
| | | | 0% | | 0% | | 0% | 0 |
| | Sub-Total: Mining | 0 | 0% | 0 | 0% | 0 | 0% | 0 |
| | OTHER | | | | | | | |
| | Agriculture | 0 | 0% | | 0% | 1 | 50% | 0 |
| | Churches | 0 | 0% | 0 | 0% | | 0% | 0 |
| | Unknown | 1 | 0% | 1 | 50% | | 0% | 0 |
| | Sub-Total: Other | 1 | 0% | 1 | 50% | 1 | 50% | 0 |
| | TOTAL | 2 211 | 100% | 2 | 100% | 2 | 100% | 2 210 |

Figure C2.1.4: User connection profile for wastewater

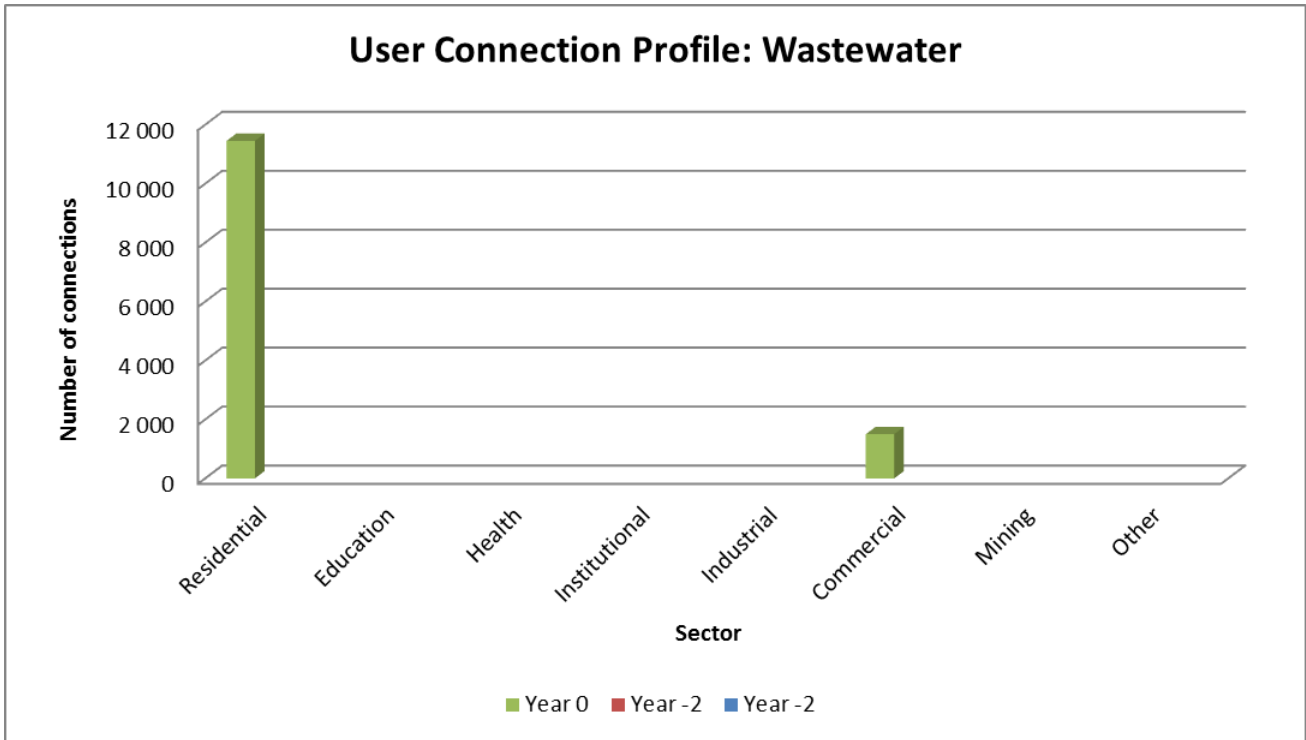


Figure C2.1.5: User connection distribution for wastewater - Year 0

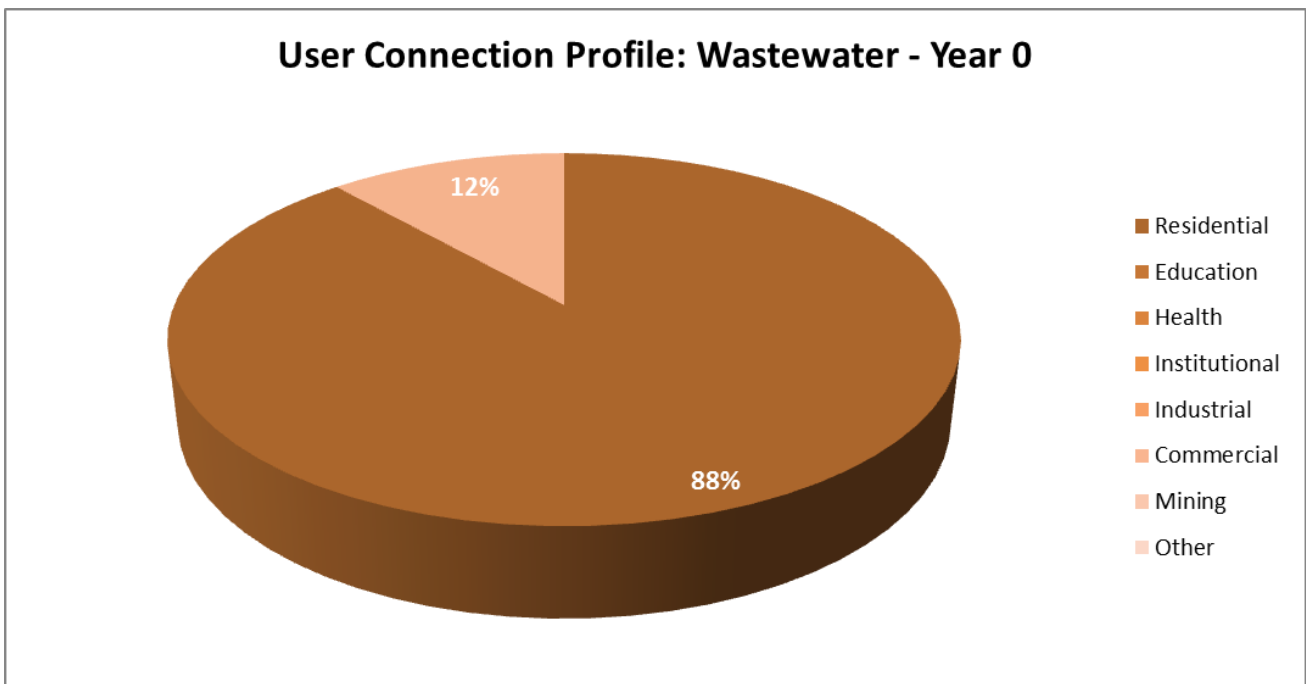
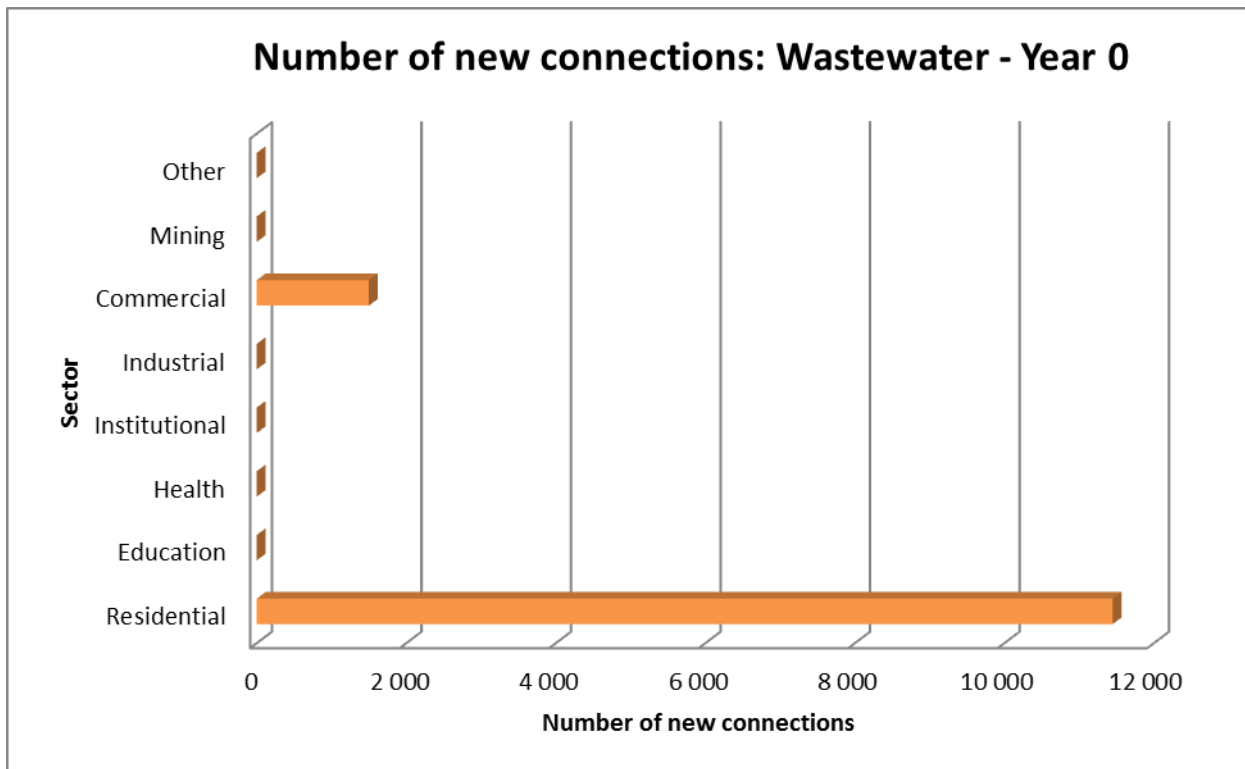


Figure C2.1.6: New connections for wastewater



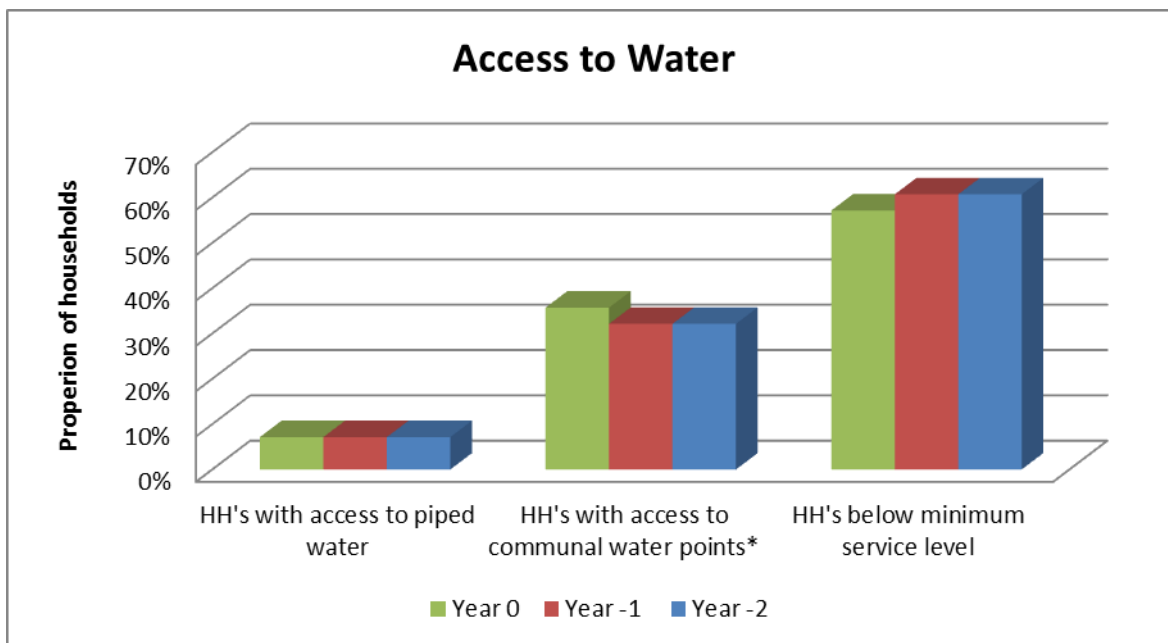
C2.2 Residential water services delivery access profile

Table C2.2.1: Residential water services delivery access profile: Water

C2.2 (a) - Residential water services delivery access profile [Water]

| Census Category | Description | 2021 | | 2020 | | 2019 | |
|--|---|--------------|-------------|--------------|------------|--------------|------------|
| | | Nr | % | Nr | % | Nr | % |
| | WATER (ABOVE MIN LEVEL) | | | | | | |
| Piped (tap) water inside dwelling/institution | House connections | 2 209 | 100% | 1 000 | 7% | 1 000 | 7% |
| Piped (tap) water inside yard | Yard connections | | 0% | | 0% | | 0% |
| Piped (tap) water on community stand: distance less than 200m from dwelling/institution | Standpipe connection < 200 m | 0 | 0% | 4 500 | 32% | 4 500 | 32% |
| | Sub-Total: Minimum Service Level and Above | 2 209 | 100% | 5 500 | 39% | 5 500 | 39% |
| | WATER (BELOW MIN LEVEL) | | | | | | |
| Piped (tap) water on community stand: distance between 200m and 500m from dwelling/institution | Standpipe connection: > 200 m < 500 m | 0 | 0% | 8 500 | 61% | 8 500 | 61% |
| Piped (tap) water on community stand: distance between 500m and 1000m (1km) from dwelling /institution | Standpipe connection: > 500 m < 1 000 m | | 0% | | 0% | | 0% |
| Piped (tap) water on community stand: distance greater than 1000m (1km) from dwelling/institution | Standpipe connection: > 1 000 m | | 0% | | 0% | | 0% |
| No access to piped (tap) water | No services | | 0% | | 0% | | 0% |
| | Sub-Total: Below Minimum Service Level | 0 | 0% | 8 500 | 61% | 8 500 | 61% |

Figure C2.2.1: Household water access profile



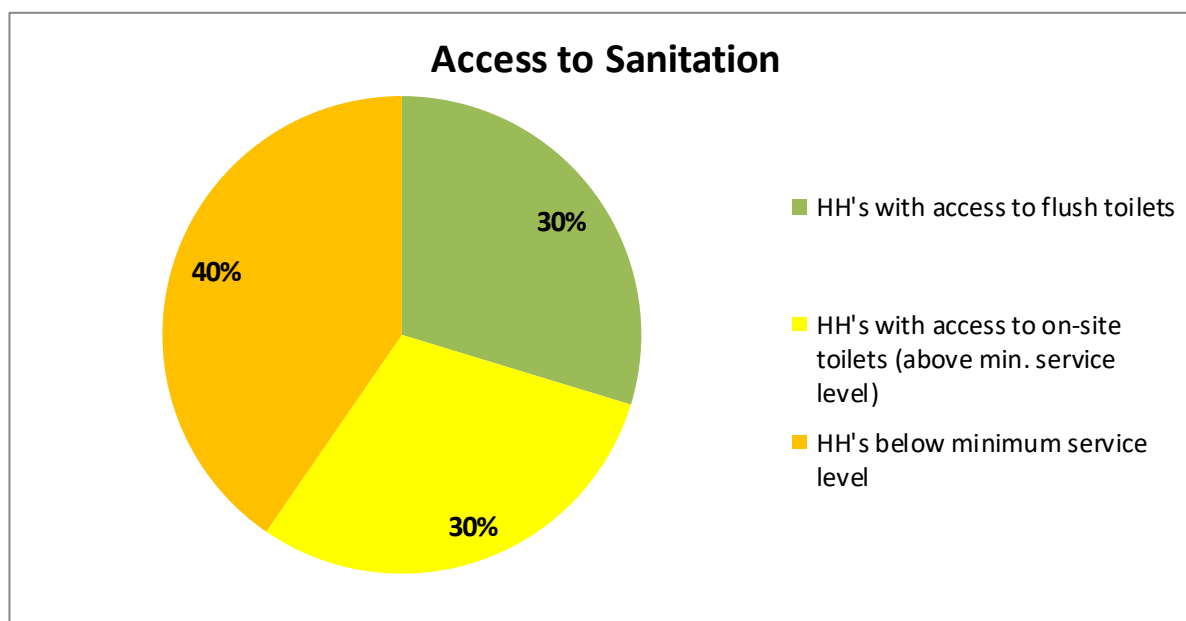
*Means access to 25 liters of potable water per day supplied within 200m of a household wand with a minimum flow of 10 liters per minute

Table C2.2.2: Residential water services delivery access profile: Sanitation

Table C2.2 (b): Residential water services delivery access profile: Sanitation

| Census Category | Description | Year 0 | | Year -1 | | Year 2 | |
|---|---|--------------|-------------|--------------|-------------|--------------|-------------|
| | | 2021 | | 2020 | | 2019 | |
| | | Nr | % | Nr | % | Nr | % |
| | SANITATION (ABOVE MIN LEVEL) | | | | | | |
| Flush toilet (connected to sewerage system) | Waterborne | 2 026 | 93% | 2 024 | 100% | 2 021 | 93% |
| | Waterborne: Low Flush | 0 | 0% | 0 | 0% | | 0% |
| Flush toilet (with septic tank) | Septic tanks / Conservancy | 156 | 7% | 0 | 0% | 156 | 7% |
| Chemical toilet | Non-waterborne (above min. service level) | 0 | 0% | 2 | 0% | | 0% |
| Pit toilet with ventilation (VIP) | | | 0% | | 0% | | 0% |
| Other | | 0 | 0% | 0 | 0% | | 0% |
| | Sub-Total: Minimum Service Level and Above | 2 182 | 100% | 2 026 | 100% | 2 177 | 100% |
| | SANITATION (BELOW MIN LEVEL) | | | | | | |
| Pit toilet without ventilation | Pit toilet | 0 | 0% | 0 | 0% | | 0% |
| Bucket toilet | Bucket toilet | 0 | 0% | 0 | 0% | | 0% |
| Other toilet provision (below min. service level) | Other | 0 | 0% | 0 | 0% | | 0% |
| No toilet provisions | No services | | 0% | | 0% | | 0% |
| | Sub-Total: Below Minimum Service Level | 0 | 0% | 0 | 0% | 0 | 0% |

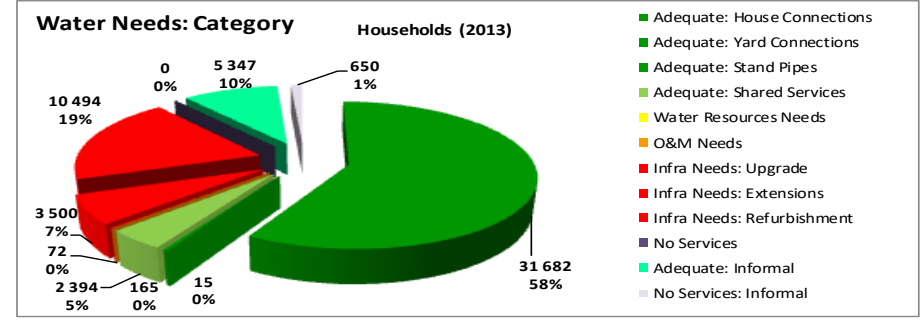
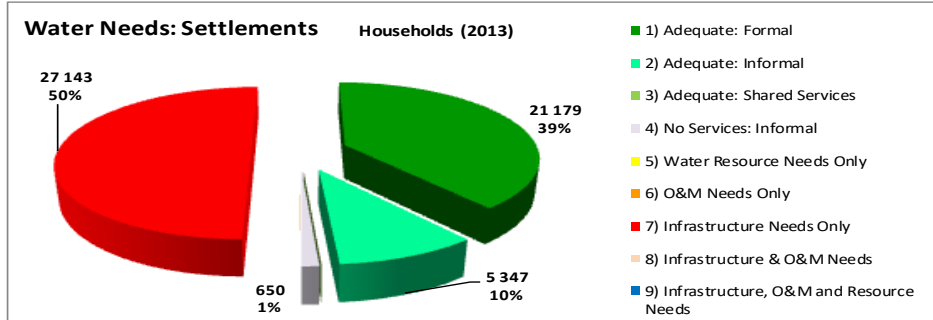
Figure C2.2.2: Household sanitation access profile



C2.3 Residential water services delivery adequacy profile

Table C2.3 (a): Residential water services delivery adequacy profile

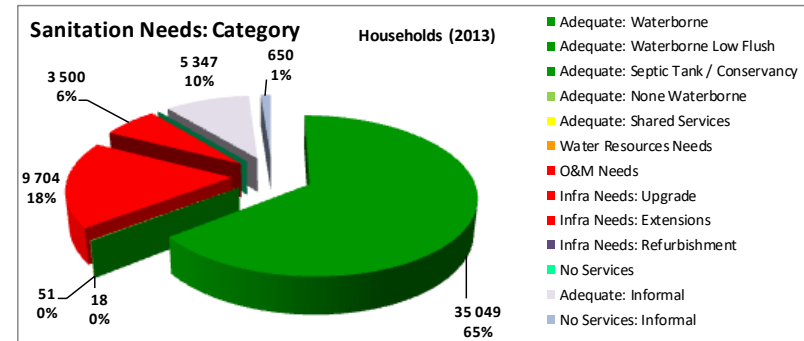
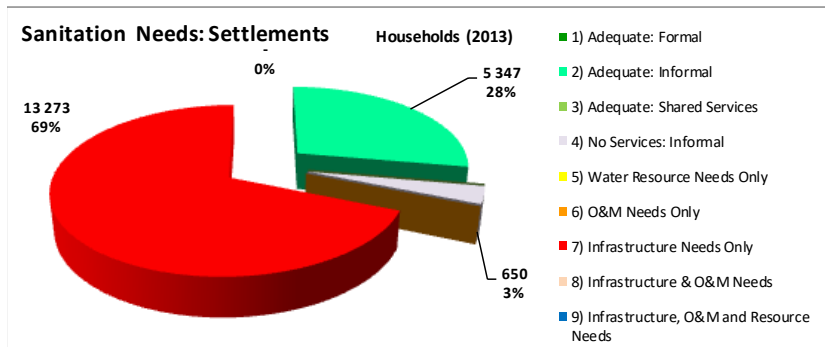
| Water Categorisation | Number of settlements | FORMAL | | | | | | | | | | | | | | | | | | INFORMAL | | | | | | |
|---|-----------------------|-------------------|-----|------------------|------|-------------|------|-----------------|------|----------------------|---|-------------|---|----------------------|------|--------------|------------|---------------|------|-------------|----|--------------|-------|-------------|----|---|
| | | Adequate | | | | | | | | Water Resource needs | | O & M Needs | | Infrastructure Needs | | | | | | No services | | Adequate | | No services | | |
| | | House Connections | | Yard Connections | | Stand Pipes | | Shared Services | | HH | % | HH | % | HH | % | Upgrades | Extensions | Refurbishment | HH | % | HH | % | HH | % | HH | % |
| | | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | |
| 1 | 9 | 21 179 | 67% | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 23 | | | | | | | | | | | | | | | | | | | | | | 5 347 | 100% | | |
| 3 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 29 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 3 | 10 503 | 33% | 15 | 100% | 165 | 100% | 2 394 | 100% | | | | | 72 | 100% | 3 500 | 100% | 10 494 | 100% | | | | | | | |
| 8 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Household Interventions required | | 31 682 | | 15 | | 165 | | 2 394 | | 0 | | 0 | | 72 | | 3 500 | | 10 494 | | 0 | | 5 347 | | 650 | | |



| | | | | | | | | | |
|---|--------------------|---|---------------------------|---|-----------------------------------|---|----------------------------------|----|--------------------------------------|
| 1 | Adequate | 3 | Adequate: Shared services | 5 | Water Resources Needs <u>Only</u> | 7 | Infrastructure Needs <u>Only</u> | 9 | Infrastructure, O&M & Resource Needs |
| 2 | Adequate: Informal | 4 | No Services: Formal | 6 | O & M Needs <u>Only</u> | 8 | Infrastructure & O&M needs | 10 | No Services |

Table C2.3 (b): Residential water services delivery adequacy profile (Sanitation)

| Water Categorisation | Number of settlements | FORMAL | | | | | | | | | | | | | | | | | | INFORMAL | | | | | | | | | |
|--|--------------------------|------------|-----|-------------------------|---|-----------------------------|------|--------------------|------|--------------------|---|----------------------------|---|-------------|---|----------------------|------|------------|------|---------------|---|-------------|---|----------|---|-------------|------|------|---|
| | | Adequate | | | | | | | | | | Water Resource needs | | O & M Needs | | Infrastructure Needs | | | | | | No services | | Adequate | | No services | | | |
| | | Waterborne | | Waterborne Low flush | | Septic Tank/ Conservancy | | None Waterborne | | Shared Services | | | | | | Upgrades | | Extensions | | Refurbishment | | | | | | | | | |
| | | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % | HH | % |
| 1 | 6 | 501 | 1% | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 5 347 | 100% | | |
| 3 | 49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | 650 | 100% | |
| 5 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7 | 6 | 34 548 | 99% | | | 18 | 100% | 51 | 100% | | | | | | | 9 704 | 100% | 3 500 | 100% | | | | | | | | | | |
| 8 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Household Interventions required | | 35 049 | | 0 | | 18 | | 51 | | 0 | | 0 | | 0 | | 9 704 | | 3 500 | | 0 | | 0 | | 5 347 | | 650 | | | |



| | | | | | | | | | |
|---|--------------------|---|---------------------------|---|-----------------------------------|---|----------------------------------|----|--------------------------------------|
| 1 | Adequate | 3 | Adequate: Shared services | 5 | Water Resources Needs <u>Only</u> | 7 | Infrastructure Needs <u>Only</u> | 9 | Infrastructure, O&M & Resource Needs |
| 2 | Adequate: Informal | 4 | No Services: Formal | 6 | O & M Needs <u>Only</u> | 8 | Infrastructure & O&M needs | 10 | No Services |

C3. Cost recovery and free basic services

C3.1 Tarrifs

Table C3.1.1: Tariffs for water

| | | | | | | | #DIV/0! |
|---|------|--|--------|--------|--------|--|---------|
| <u>VOLUME CHARGES</u> | | | | | | | |
| 0 -6 kl | 6.28 | | R 6.66 | R 6.28 | R 5.77 | | 6.1% |
| 7 - 15 kl | 8.19 | | R 8.68 | R 8.19 | R 7.68 | | 6.0% |
| 16 - 50 k | 9 | | R 9.54 | R 9.00 | R 8.49 | | 6.0% |
| <u>RECONNECTION CHARGES</u> | | | | | | | |
| | 240 | | | | | | #DIV/0! |
| | | | | | | | #DIV/0! |
| <u>OTHER CHARGES (DEFINE CATEGORY)</u> | | | | | | | |
| Tampering | 2700 | | | | | | #DIV/0! |
| | | | | | | | #DIV/0! |

Table C3.1.2: Tariffs for wastewater

Table C3.1.2: Tariffs for Wastewater

| Nr | Category | Sector | Unit | Tariff (VAT excluded) | | | % increase Year 0 |
|---|---------------------------|--------|------|-----------------------|----------|----------|----------------------|
| | | | | Year 0 | Year -1 | Year - 2 | |
| | | | | 2021 | 2020 | 2019 | |
| <u>BASIC CHARGES</u> | | | | | | | |
| | First load - septic tenks | | pump | 146.5 | R 138.21 | R 129.92 | 6.0% |
| | Second load | | pump | 58.3 | R 55.00 | R 51.70 | 6.0% |
| <u>VOLUME CHARGES (where applicable)</u> | | | | | | | |
| | | | | | | | #DIV/0! |
| | | | | | | | #DIV/0! |
| | | | | | | | #DIV/0! |
| <u>CHARGES TO EMPTY TANKS</u> | | | | | | | |
| | | | | | | | #DIV/0! |
| | | | | | | | #DIV/0! |
| <u>OTHER CHARGES (DEFINE CATEGORY)</u> | | | | | | | |
| | | | | | | | #DIV/0! |

C3.2 Metering, Billing and Free Basic Services

Table C3.2: Overview of metering, billing and Free Basic Services

C3.3 Revenue collection and cost recovery

Table C3.3: Overview of water services revenue collection and cost recovery

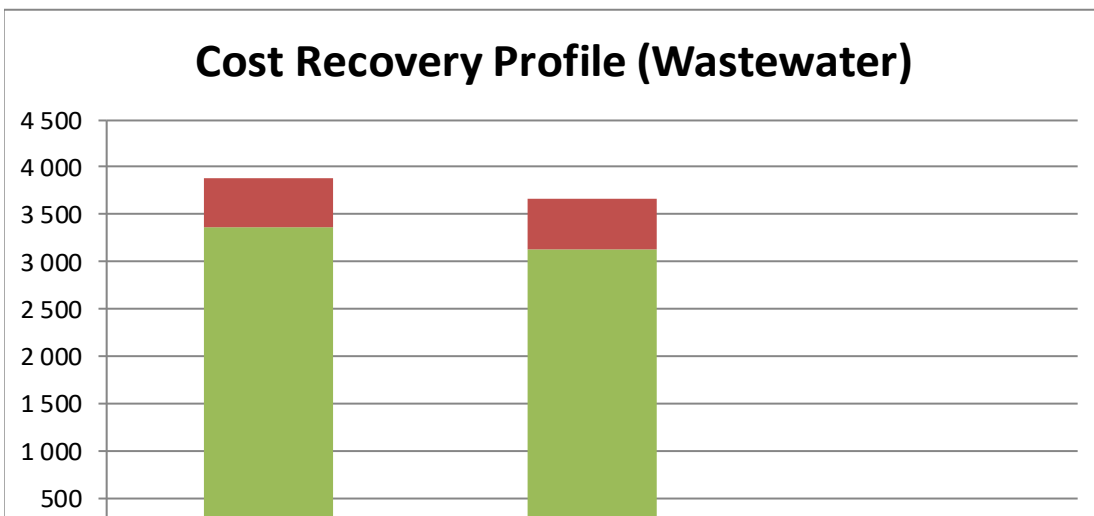


Figure C3.3.1: Revenue collection and cost recovery profile (water)

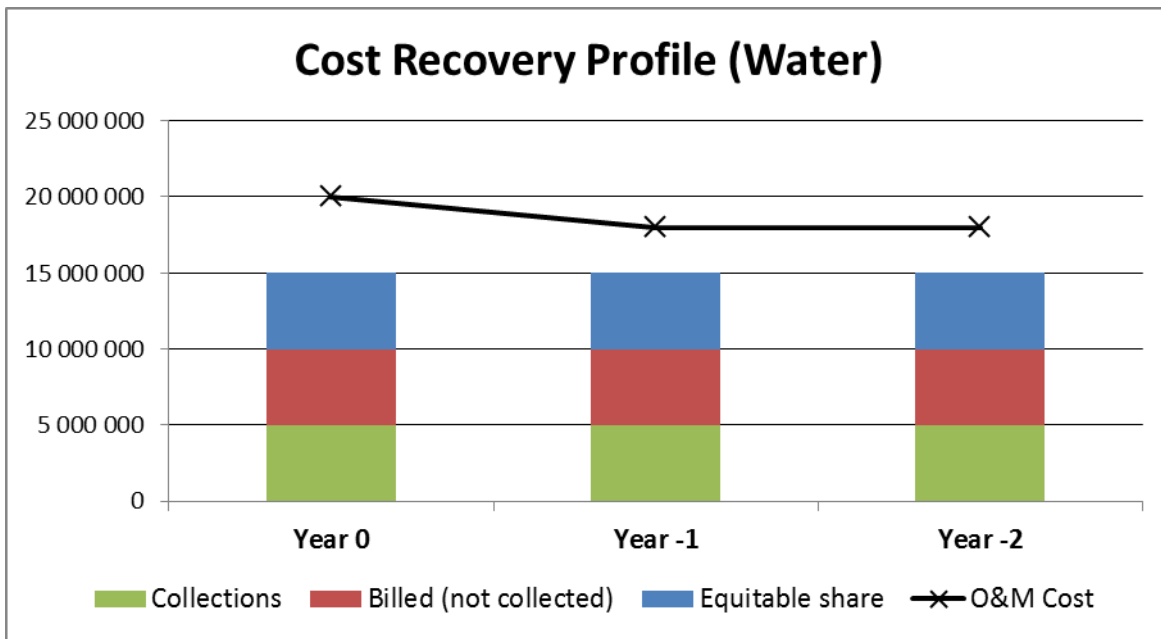
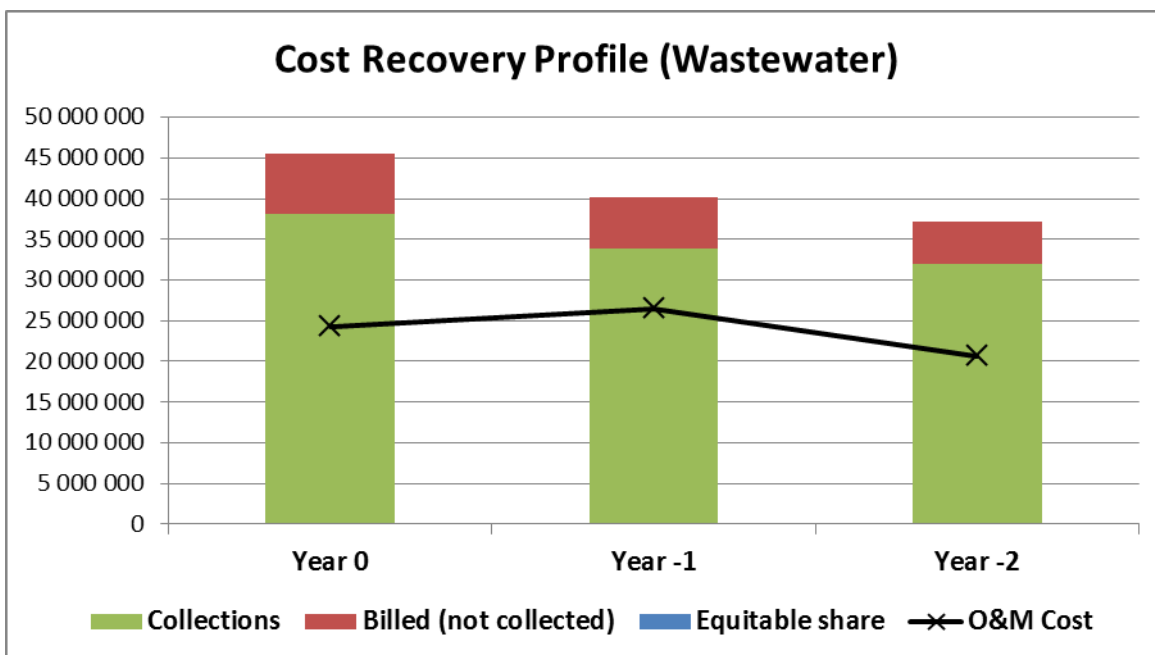


Figure C3.3.2: Revenue collection and cost recovery profile (wastewater)



C4. Water quality

C4.1 Sampling programme

Table C4.1.1: Sampling programme for potable water quality

Table C4.1.1: Sampling programme for potable water quality

| Treated Water Schemes | | | | | | | | |
|-----------------------------|-----------------|-----------------|--------|--------|-------------------------------------|------------------|--------|--------|
| Registered Sites per Scheme | | Active (yes/no) | | | Determinands per Category | Frequency (days) | | |
| | | Year 0 | Year-1 | Year-2 | | Year 0 | Year-1 | Year-2 |
| # | Name | 2021 | 2020 | 2019 | | 2021 | 2020 | 2019 |
| 1 | Williston No1 | yes | yes | yes | Microbiological (Health) | 30 | 30 | 30 |
| 2 | Williston No2 | yes | yes | yes | | 30 | 30 | 30 |
| 3 | Sutherland No 1 | yes | yes | yes | | 30 | 30 | 30 |
| 4 | Sutherland No 2 | yes | yes | yes | Chemical (Health) | 265 | 265 | 265 |
| 5 | Fraserburg No1 | yes | yes | yes | | 265 | 265 | 265 |
| 6 | Fraserburg No2 | yes | yes | yes | | 265 | 265 | 265 |
| 7 | | | | | | | | |
| 8 | | | | | Physical, Organoleptic (Non Health) | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | SANS 241 Operational Tests | 365 | 365 | 365 |
| 12 | | | | | | | | |
| 13 | | | | | | | | |
| Borehole Schemes | | | | | | | | |
| Registered Sites per Scheme | | Active (yes/no) | | | Determinands | Frequency (days) | | |
| | | Year 0 | Year-1 | Year-2 | | Year 0 | Year-1 | Year-2 |
| # | Name | 2021 | 2020 | 2019 | | 2021 | 2020 | 2019 |
| 1 | Williston No1 | yes | yes | yes | Microbiological (Health) | 30 | 30 | 30 |
| 2 | Williston No2 | yes | yes | yes | | 30 | 30 | 30 |
| 3 | Sutherland No 1 | yes | yes | yes | | 30 | 30 | 30 |
| 4 | Sutherland No 2 | yes | yes | yes | Chemical (Health) | 265 | 265 | 265 |
| 5 | Fraserburg No1 | yes | yes | yes | | 265 | 265 | 265 |
| 6 | Fraserburg No2 | yes | yes | yes | | 265 | 265 | 265 |
| 7 | | | | | | | | |
| 8 | | | | | Physical, Organoleptic (Non Health) | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |
| 11 | | | | | SANS 241 Operational Tests | 365 | 365 | 365 |
| 12 | | | | | | | | |

Table C4.1.2: Sampling programme for wastewater effluent quality

| Registered Sites | | Active | | | Determinands per Category | Frequency (days) | | |
|------------------|------|--------|--------|--------|---------------------------|------------------|--------|--------|
| | | Year 0 | Year-1 | Year-2 | | Year 0 | Year-1 | Year-2 |
| # | Name | FY20XX | FY20XX | FY20XX | | FY20XX | FY20XX | FY20XX |
| 1 | | | | | Microbiological | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | Chemical | | | |
| 5 | | | | | | | | |
| 6 | | | | | | | | |
| 7 | | | | | Operational | | | |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | Physical | | | |
| 11 | | | | | | | | |
| 12 | | | | | | | | |

Table C4.1.3: Compliance to the sampling programme (s)

Table C4.1.3: Complianc to the sampling programme (s)

| Measurable / Enabling Factor | Unit | Year 0 | | | | Year-1 | | | | Year-2 | | | |
|-----------------------------------|---------------|--------|------|---|---|--------|---|---|---|--------|---|---|---|
| | | 2021 | | | | 2020 | | | | 2019 | | | |
| | | M | C | P | O | M | C | P | O | M | C | P | O |
| Potable Water Quality | | | | | | | | | | | | | |
| Supply system submissions | Nr registered | 6 | 6 | | | | | | | | | | |
| | Nr submitted* | 6 | 6 | | | | | | | | | | |
| | Annual % | 100% | 100% | | | | | | | | | | |
| Monitoring compliance | Average % | 100% | 100% | | | | | | | | | | |
| Data Credibility | Average % | 100% | 100% | | | | | | | | | | |
| BDS In-Time Submission | Annual % | 50% | 50% | | | | | | | | | | |
| Wastewater Quality | | | | | | | | | | | | | |
| Monitoring compliance | Average % | 0% | | | | | | | | | | | |
| Operational monitoring compliance | Average % | 0% | | | | | | | | | | | |

Table C4.1.4: Water quality monitoring overview from WSDP Guide Framework perspective**Table C4.1.3: Water quality monitoring overview from WSDP Guide Framework perspective**

| WSDP Ref # | Measurable / Enabling Factor | Unit | Year 0 | Year - 1 | Year - 2 |
|------------|---|---------------------------------------|--------|----------|----------|
| | | | 2021 | 2020 | 2019 |
| 6.3 | Water Supply and Quality | | | | |
| 6.3.2 | Process Control in place | yes/total WTW in % | 70 | 70 | 70 |
| 6.3.3 | Monitoring Programme in place | yes/total schemes in % | 50 | 50 | 50 |
| 6.3.4 | Sample Analysis Credibility | Average % | 90 | 90 | 90 |
| 9.2 | Monitoring | | | | |
| 9.2.1 | % of water abstracted monitored: Surface water | Q monitored / Q abstracted in % | 0 | 0 | 0 |
| 9.2.2 | % of water abstracted monitored: Ground water | Q monitored / Q abstracted in % | 100 | 100 | 100 |
| 9.2.3 | % of water abstracted monitored: External Sources (Bulk purchase) | Q monitored own / Q purchased in % | 0 | 0 | 0 |
| 9.2.6 | Water quality for formal schemes? (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never) | frequency | 3 | 3 | 3 |
| 9.2.7 | Water quality for rudimentary schemes? (1: daily, 2: weekly, 3: monthly, 4: annually, 5: never) | frequency | 5 | 5 | 5 |
| 9.2.9 | Is the number sufficient in accordance to the SANS241 requirements? | yes/no | no | no | no |
| 9.3 | Water Quality | | | | |
| | Is there a water quality plan in place? | yes/no | yes | yes | yes |
| 9.3.1 | Reporting on quality of water taken from source: urban & rural | yes/total schemes in % | 80 | 80 | 80 |
| 9.3.5 | Quality of water taken from source: urban - % monitored by WSA self? | monitored by WSA / total schemes in % | 80 | 80 | 80 |
| 9.3.6 | Quality of water taken from source: rural - % monitored by WSA self? | monitored by WSA / total schemes in % | 0 | 0 | 0 |

Table C4.1.5: Wastewater quality monitoring overview from WSDP Guide Framework perspective

| | Is there a water quality plan in place? | yes/no | yes | yes | yes |
|-------|---|------------------------------------|-----|-----|-----|
| 9.3.2 | Quality of water returned to the resource: urban | yes/total WWTW in % | 0% | 0% | 0% |
| 9.3.3 | Quality of water returned to the resource: rural | yes/total WWTW in % | 0% | 0% | 0% |
| 9.3.7 | Quality of water returned to resource: urban - % monitored by WSA self? | monitored by WSA / urban WWTW in % | 0% | 0% | 0% |
| 9.3.8 | Quality of water returned to resource: rural - % monitored by WSA self? | monitored by WSA / rural WWTW in % | 0% | 0% | 0% |
| 9.3.9 | Are these results available in electronic format? | yes/no | no | no | no |

C4.2 Water quality compliance

Table C4.2.1: Overview of water quality compliance

| Ref # | Factor | Unit | M | C | P | O | M | C | P | O | M | C | P | O |
|---|--|-------------------------------|------|------|---|------|------|------|------|---|------|------|---|---|
| Results per the Blue Drop System | | | | | | | | | | | | | | |
| n/a | Analysis compliance | Total | 100% | 100% | | | 100% | 100% | | | 100% | 100% | | |
| n/a | | Nr Failures | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| n/a | | Compliance % | 100% | 100% | | | 100% | 100% | | | 100% | 100% | | |
| n/a | Samples frequency | Total | 100% | 100% | | | 100% | 100% | | | 100% | 100% | | |
| n/a | | Nr Failures | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| n/a | | Compliance % | 100% | 100% | | | 100% | 100% | | | 100% | 100% | | |
| n/a | Sites compliance | Total | 100% | 100% | | | 100% | 100% | | | 100% | 100% | | |
| n/a | | Nr Failures | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| n/a | | Compliance % | 100% | 100% | | | 100% | 100% | | | 100% | 100% | | |
| 6.3 | Water Supply and Quality | | | | | | | | | | | | | |
| 6.3.6 | Blue Drop Status | last year certified by DWA | 47% | | | 147% | | | 247% | | | | | |
| 9.3 | Water Quality | | | | | | | | | | | | | |
| 9.3.10 | % Time (days) within SANS 241 standards per year | Average of sites compliance % | 80% | | | 180% | | | 280% | | | | | |

Legend

M: Microbiological; **C:** Chemical; **P:** Physical; **O:** Operational

Table C4.2.2: Overview of wastewater quality compliance

| | | | | | |
|------------|---------------------------------|----------------------------|-----|-----|-----|
| 6.3 | Water Supply and Quality | | | | |
| 6.4.6 | Green Drop Status | last year certified by DWA | 53% | 53% | 53% |

Legend

M: Microbiological; **C:** Chemical; **P:** Physical; **O:** Operational

C4.3 Incident management

Table C4.3.1: Incident management and reporting overview

Table C4.3.1: Incident management and reporting overview

| WSDP Ref # | Measurable / Enabling Factor | Unit | Year 0 | Year - 1 | Year - 2 |
|------------|---------------------------------------|------------------------|--------|----------|----------|
| | | | 2021 | 2020 | 2019 |
| 6.3 | Water Supply and Quality | | | | |
| 6.3.1 | Incident Management Protocol in place | yes/total schemes in % | 100 | 100 | 100 |
| 6.3.5 | Failure Response Management in place | yes/total schemes in % | 100 | 100 | 100 |
| 6.4 | Waste Water Supply and Quality | | | | |
| 6.4.1 | Incident Management Protocol in place | yes/total schemes in % | 100 | 100 | 100 |

Table C4.3.2: Water quality incident reporting compliance (health oriented)

Table C4.3.2: Water quality incident reporting compliance (health oriented)

| Measurable / Enabling Factor | Unit | Year 0 | | | | Year-1 | | | | Year-2 | | | |
|-------------------------------|-----------------------|----------------------------------|---------------------------|----------------------------------|----------------|----------------------------------|---------------------------|----------------------------------|----------------|----------------------------------|---------------------------|----------------------------------|----------------|
| | | 2021 | | | | 2020 | | | | 2019 | | | |
| | | Acute Health - 1 Microbiological | Acute Health - 1 Chemical | Acute Health - 2 Microbiological | Chronic Health | Acute Health - 1 Microbiological | Acute Health - 1 Chemical | Acute Health - 2 Microbiological | Chronic Health | Acute Health - 1 Microbiological | Acute Health - 1 Chemical | Acute Health - 2 Microbiological | Chronic Health |
| Failures in terms of Analysis | Total nr | 6 | 6 | | | 6 | 6 | | | 6 | 6 | | |
| | Nr of failures | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| | Failure % | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| | Nr reported | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| | Reported % of failure | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| Failures in terms of Samples | Total | 100% | 100% | | | 100% | 100% | | | 100% | 100% | | |
| | Nr of failures | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| | Failure % | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | |
| | Nr reported | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| | Reported % of failure | 0 | 0 | | | 0 | 0 | | | 0 | 0 | | |
| Failures in terms of Sites | Total | 100% | 100% | | | 100% | 100% | | | 100% | 100% | | |
| | Nr of failures | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| | Failure % | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |
| | Nr reported | 0% | 0% | | | 0% | 0% | | | 0% | 0% | | |

C5. Water conservation and demand management

Table C5: Overview of water conservation and demand management activities

Table C5: Overview of water conservation and demand management activities

| WSDP Ref. # | Regulations Ref. # | Description | Urban Settlements | | | | | | Rural Settlements | | | | | | |
|-------------|--------------------|---|-------------------|------------|----------|------------|----------|------------|-------------------|------------|----------|------------|----------|------------|--|
| | | | Year 0 | | Year - 1 | | Year - 2 | | Year 0 | | Year - 1 | | Year - 2 | | |
| | | | FY20XX | % of total | FY20XX | % of total | FY20XX | % of total | 2021 | % of total | 2020 | % of total | 2019 | % of total | |
| 7.1.1 | 10.2.g.iii | REDUCING UNACCOUNTED FOR WATER AND WATER INEFFICIENCIES | | | | | | | | | | | | | |
| | | Number of customers where the following activities have been pursued: | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | |
| 7.1.1.1 | | Night flow metering | | | 0 | | 0 | | 2 209 | 100% | 2 209 | 100% | 2 209 | 100% | |
| 7.1.1.2 | | Day flow metering | | | 0 | | 0 | | 2 209 | 100% | 2 209 | 100% | 2 209 | 100% | |
| 7.1.1.3 | | Reticulation leaks fixed | | | 0 | | 0 | | 56 | 3% | 56 | 3% | 56 | 3% | |
| 7.1.1.4 | | Illegal connections formalized | | | 0 | | 0 | | 2 | 1% | 2 | 1% | 2 | 1% | |
| 7.1.1.5 | | Un-metered connections, metered | | | 0 | | 0 | | 0 | 0% | 0 | 0% | 0 | 0% | |
| 7.1.2 | 10.2.g.iii | REDUCING HIGH PRESSURES FOR RESIDENTIAL CONSUMERS | | | | | | | | | | | | | |
| | | Number of residential consumers with water supply pressure of: | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | |
| 7.1.2.1 | | < 300 kPa | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | |
| 7.1.2.2 | | 300 kPa - 600 kPa | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | |
| 7.1.2.3 | | 600 kPa - 900 kPa | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | |
| 7.1.2.4 | 10.2.b.iii | > 900 kPa | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | |
| 7.1.3 | 10.2.g.iii | LEAK AND METER REPAIR PROGRAMMES | | | | | | | | | | | | | |
| | | Number of consumer units targeted by: | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | |
| 7.1.3.1 | | Leak repair assistance programme | 0 | 0% | 0 | | 0 | | 350 | 16% | 350 | 16% | 350 | 16% | |
| 7.1.3.2 | 10.2.g.iv | Retro-fitting of water inefficient toilets | 0 | 0% | 0 | | 0 | | 350 | 16% | 350 | 16% | 350 | 16% | |
| 7.1.3.3 | | Meter repair programme | 0 | 0% | 0 | | 0 | | 0 | 0% | 0 | 0% | 0 | 0% | |
| 7.1.4 | 10.2.g.iii | CONSUMER / END-USE DEMAND MANAGEMENT: PUBLIC INFO AND EDUCATION PROGRAMMES | | | | | | | | | | | | | |
| | | | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | Nr | % of total | |
| 7.1.4.1 | | Number of schools targeted by education programmes | | | 0 | | 0 | | 17 | 100% | 17 | 100% | 17 | 100% | |

Section D: Approval and Publication Record

- D1. This Annual Water Services Development Plan Performance- and Water Services Audit Report for the Financial Year ending 2013 (FY2013) is hereby approved for submission to the Minister of the Department of Water Affairs, the Minister for Department of Cooperative Governance, the Province and to SALGA, as required by the Water Services Act, 1997.
- D2. The municipality will endeavour to publicise a summary of the report.
- D3. This report will be available for inspection at the offices of the municipality, as of _____ and obtainable against payment of a nominal fee of R_____.

RECOMMENDED:

Signature
Name:
Title:

Date

Signature
Name:
Title:

Date

APPROVED:

Signature
Name:
Title: Municipal Manager

Date