



**Sekhukhune**  
DISTRICT MUNICIPALITY

# Sekhukhune District Municipality Workshop Proceedings

Wastewater Treatment: Towards Improved Water Quality to Promote  
Social and Economic Development

2013

Authored by:

Ntombela, C., Masangane, W., Funke, N., and Nortje, K.

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**This Workshop is an output of the CSIR's Water Sustainability Flagship Project**

## Executive Summary

The Sekhukhune District Municipality Workshop on Wastewater Treatment was held on 19 September 2013 at the Loskop Valley Lodge in Groblersdal, Limpopo Province. The workshop was hosted by Ms Mokoko, the Municipal Manager of the Sekhukhune District Municipality, and was facilitated by the Council for Scientific and Industrial Research (CSIR). A variety of stakeholders participated in this workshop, including representatives from the national and provincial offices of the Department of Water Affairs, Lepelle Northern Water, the Sekhukhune District Municipality and Ga-Manoke community.

*The aim of the Workshop was to reinforce, at the strategic decision-making level within the municipality, the significance of properly managed wastewater treatment facilities towards improved water quality.*

The aim of the workshop was to reinforce, at the strategic decision-making level within the municipality, the significance of properly managed wastewater treatment facilities towards improved water quality. The workshop facilitators also aimed to assist the workshop participants to identify actions that could be taken to improve the state of wastewater management in the Sekhukhune District.

## Structure of the workshop

The structure of the workshop was designed to facilitate interaction and networking between stakeholders to collectively discuss and formulate innovative solutions to the challenges associated with wastewater treatment in the Sekhukhune District Municipality. Throughout the workshop reference was made to the plans and proposed solutions already contained in the municipality's Integrated Development Plan (IDP). An important aim of the workshop was to steer away from only focusing on the challenges associated with wastewater treatment in the district, and instead to highlight what **can** be done to improve the current situation.



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**Sekhukhune District Municipality Workshop on Wastewater Treatment:**  
Towards Improved Water Quality to Promote Social and Economic Development  
Hosted by the Municipal Manager: Ms Mokoko  
Facilitated by the CSIR

TIME SLOT	SESSION NAME
08:30 – 09:00	REGISTRATION AND COFFEE/TEA
09:00 – 09:10	Introductions
09:10 – 09:30	Sekhukhune District Municipality: Current State, Wastewater Treatment and Development Opportunities
09:30 – 10:00	Introduction to CSIR work in the Sekhukhune District Municipality
10:00 – 10:30	TEA BREAK
10:30 – 11:30	Facilitated discussion: What is the desired future of the Sekhukhune District Municipality?
11:30 – 12:30	Facilitated discussion: What are the obstacles and constraints to getting us to this desired future?
12:30 – 13:30	LUNCH
13:30 – 14:30	Smaller facilitated group discussions for SDM staff
14:30 – 15:00	Wrap up and closing
15:00 – 15:30	TEA

The workshop started with participants introducing themselves and their affiliation. Workshop Session One consisted of a series of presentations. The first presentation sketched the status quo of affairs in the Sekhukhune District, with a particular focus on how improved wastewater treatment can contribute to development opportunities. The second set of presentations introduced the work that the CSIR has been conducting in the Sekhukhune District since 2012. The first year of the CSIR's work in the district focused on

identifying issues and constraints related to wastewater treatment. The second year is focusing on practical interventions in the district to contribute to improving wastewater treatment and the third year will concentrate on rolling out these interventions at a larger scale. The second set of presentations was divided into three components: research and interventions taking place upstream of wastewater treatment works (WWTW), at the WWTW itself and downstream of the WWTW.

Workshop Sessions Two and Three took the form of a facilitated discussion on identifying and describing the desired future of the Sekhukhune District, in terms of WWTW, as well as the obstacles and constraints that might prevent the municipality from attaining this desired future. The inputs of the workshop participants were subsequently clustered into different thematic areas.

Workshop Session Four involved smaller group discussions, during which participants were divided into four groups that were representative of the different affiliations and municipal management levels present at the workshop. Each of these groups was given a specific “Obstacles and Challenges Theme” to discuss, and was tasked with identifying and agreeing on three immediate actions that could be taken to address the issues identified under their theme.

Workshop Session Five involved a feedback session, where a representative from each group communicated the outcomes of their group discussion back to all of the participants present.

The workshop ended with a parting message by the Sekhukhune District Municipality’s Director of Technical Services, Mr Machaba. Mr Machaba expressed the hope that people would have been able to learn something from the workshop and would be able to share that learning with others in future. He also suggested the importance of investigating some of the suggestions that had been made at the workshop to see which of these could possibly be implemented practically in future.

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## Workshop Session One: Setting the Scene and the CSIR's work in the Sekhukhune District Municipality

### The Sekhukhune District Municipality: Current State, Wastewater Treatment and Development Opportunities

Facilitator: Mr Elliot Moyo

Presenter: Dr Marius Claassen

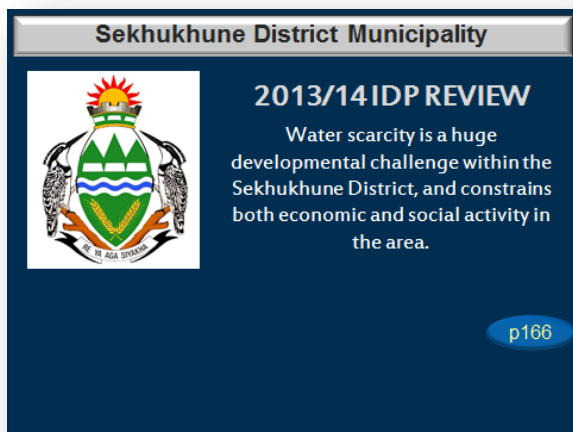
Dr Marius Claassen set the scene for the workshop by giving a brief national perspective of South Africa's socio-economic development. He highlighted that South Africa currently ranks very low (123<sup>rd</sup> out of 187) in terms of the Human Development Index. He further mentioned that according to the 2011 Statistics South Africa Census, only 57% of the country's population is connected to sewerage systems. A large number of municipalities in the country provide only limited water supply and solid waste removal services, with some of the Sekhukhune District's local municipalities ranking among the lowest.

According to the 2011 Census, only 57% of the country's population is connected to sewerage systems.

Dr Claassen subsequently highlighted the importance of treating wastewater in a responsible manner. It is necessary to do so in order to have healthy rivers, which provide people with benefits such as water for irrigation, flood control, spiritual and aesthetic value etc. The absence of effective wastewater treatment can lead to negative impacts on ecosystems and human health, with a particular risk for communities, such as Ga-Manoke, who depend directly on river water.

While water scarcity is mentioned as a major development constraint in the IDP, it is also very important for the municipality to treat

wastewater effectively. When referring to the Department of Water Affairs' (DWA) country-wide Green Drop scores, it becomes clear that municipalities within Limpopo Province and particularly the Sekhukhune District Municipality are struggling to manage their wastewater treatment effectively. Burgersfort WWTW and Motetema Stabilisation Ponds are two examples of WWTW that are receiving more inflow



than they can handle and are therefore not able to function properly. Dr Claassen also mentioned the backlog in water supply which the municipality is currently facing.

The good news is that the municipality has plans in place to respond to the many water-related challenges it is facing. These plans feature prominently in the IDP, with a strong focus on actively protecting, enhancing and managing the Sekhukhune District's natural resources in order to achieve its development objectives. With the different development plans in place, the question that arises is how these plans can be implemented effectively.

## **CSIR work in the Sekhukhune District Municipality: Upstream, at WWTW and downstream interventions**

### **UPSTREAM**

**Presenter:** Ms Nikki Funke

**Topic:** Upstream Intervention

Ms Nikki Funke's presentation focused on the "upstream intervention" of the wider Water Sustainability Flagship Project which the CSIR is currently conducting in the Sekhukhune District Municipality. The upstream component of this project focuses on governance issues. This work is based on the recognition that water quality and wastewater management challenges do not only result from technical problems but are also linked to problems and challenges related to decision-making, institutional and governance issues.

On the basis of this realisation, the project team conducted research related to wastewater regulation, performance, monitoring, compliance and enforcement. This part of the research involved the evaluation of two compliance monitoring and enforcement mechanisms currently implemented by DWA as the regulator of water services. The first mechanism that was evaluated is the Enforcement Protocol for Organs of State, a tool used to hold water services authorities accountable in cases of non-compliance with wastewater services requirements. The second mechanism is the Green Drop Certification Programme, an incentive based programme aimed at rewarding good performance in the wastewater services sector. Ms Funke highlighted some challenges affecting the effectiveness of both of these mechanisms. One of the challenges relates to poor compliance monitoring by the regulator, which means that cases of non-compliance are only addressed in a reactive manner where the regulator's actions often amount to disaster management. Another challenge is that, in spite of the good progress made in implementing the Green Drop Certification Programme, many water services authorities lack the capacity to draw up effective corrective plans to improve their Green Drop scores. Regarding wastewater treatment in general, the research found that it is problematic to mainstream

The upstream component of the Water Sustainability Flagship Project focuses on governance issues

wastewater management into municipal decision-making and make it a priority area for intervention.

To further understand the governance issues pertaining to the management of wastewater in the municipality, the research team conducted an analysis of municipal structures and decision-making, the legal requirements of water services authorities and the challenges related to the licensing of WWTW. A particular finding from this work is that communication challenges exist between middle level and senior management within the Sekhukhune District Municipality. This results in water quality and wastewater management issues not receiving appropriate attention especially at senior decision-making level.

**BOX 1.**

**Explanatory notes: legal obligations of water services authorities**

In terms of the Constitution<sup>1</sup>, a municipality is an organ of state within the local sphere of government with the responsibility to, inter alia, ensure the provision of services to communities and promote a safe and healthy environment<sup>2</sup>. Municipalities have the responsibility to administer the local government matters listed in Part B of Schedule 4 and Part B of Schedule 5 of the Constitution<sup>3</sup>. Among the local government responsibilities listed in these Schedules is “water and sanitation services limited to potable water supply systems and domestic wastewater and sewage disposal systems”<sup>4</sup>. This implies that municipalities are constitutionally obliged to provide water services to local communities with support and regulation by the provincial and national spheres of government. This duty encompasses wastewater management and forms part of sanitation services.

In keeping with the constitutional provisions and relevant local government legislation, the Water Services Act<sup>5</sup> (WSA) assigns some municipalities as water services authorities. A water services authority refers to any municipality responsible for ensuring access to water services<sup>6</sup>. The duties of water services authorities are set out in the WSA. All water services authorities are required to provide for measures to realise the right of access to basic water supply and basic sanitation, subject to stipulated conditions<sup>7</sup>. In doing so, water services authorities have a duty to ensure efficient, affordable, economical and sustainable access to water services<sup>8</sup>.

The legal obligations of water services authorities are comprehensively set out in Chapter Three of the WSA. Water services authorities must develop water services development plans as part of the integrated development planning process within their area of jurisdictions. A water services development plan serves as an operational

<sup>1</sup> Constitution of the Republic of South Africa, 1996

<sup>2</sup> Chapter 7 of the Constitution

<sup>3</sup> Chapter 7 of the Constitution

<sup>4</sup> Schedule 4

<sup>5</sup> Act 108 of 1997

<sup>6</sup> Section 1

<sup>7</sup> Section 3 read with Section 4

<sup>8</sup> Section 11



tool in the provision and management of water services. Water services authorities are required to report on the implementation of these plans every year.

A water services authority can operate as a water services provider<sup>9</sup> itself or may enter into an agreement with a water services provider or another water services institution<sup>10</sup> to provide services. In cases where an agreement has been signed between a water services authority and a water services provider or another water services institution, a water services provider is responsible for managing such agreements with regulation and monitoring by DWAs. Water services authorities are also required to promulgate bylaws which set the conditions and standards for the provision of water services.

The national sphere of government is responsible for the overall regulation and monitoring of water services and therefore water services institutions. The provincial sphere of government gets involved in water services matters as far as this relates to the overall responsibility of municipal monitoring and provincial performance.

In conclusion and against the backdrop of the highlighted governance challenges, Ms Funke drew attention to the aim of the workshop. This was to enable different levels of management within the municipality and other stakeholders to engage constructively around interventions needed to achieve the desired state of the municipality's wastewater management.

### **WASTE WATER TREATMENT WORKS**

***Presenter:*** Dr Marius Claassen

***Topic:*** Interventions at the WWTWs

In this presentation, Dr Marius Claassen started by pointing out some of the issues affecting specific WWTW in the Sekhukhune District. For example, the WWTW at Penge has solid infrastructure which is currently not being used. Motetema Ponds also has considerable potential that needs to be realised. Based on the issues identified at the different WWTW in the district, the research team came up with three potential interventions. These interventions are currently being further researched and piloted at different WWTW in the district.

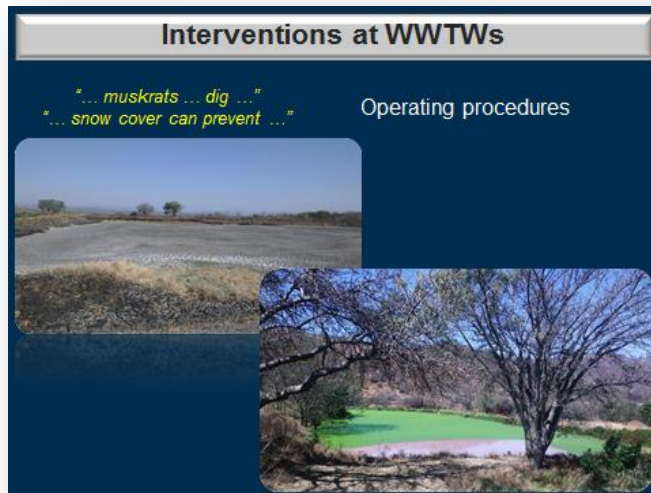
Based on the issues identified at the different WWTW in the district, the CSIR came up with three potential interventions which are currently being further researched and piloted at different WWTW in the district.

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<sup>9</sup> A water services provider refers to anyone providing water services to consumers or to another water services institution excluding a water services intermediary.

The first intervention involves the preparation of operating procedures designed for specific treatment plants. This intervention is based on the project team's finding that some of the treatment plants use inappropriate operating procedures which were designed for different

types of treatment plants and locations. The second intervention relates to the reconfiguration of the pond systems in the Sekhukhune District. This intervention is based on the need to maximise the capabilities and effectiveness of already existing infrastructure. Having considered the current mechanism used at the pond systems, the research team considered the use of different algae systems or algae mixtures in order to increase the



volumes of wastewater that can be treated. The last intervention involves the implementation of a real time monitoring system. Water quality sensors located at WWTW will send effluent quality data to a real time data base, thereby enabling timely interventions to be taken to address pressing water quality issues.

**DOWNSTREAM**

**Presenter:** Ms Karen Nortje

**Topic:** Downstream intervention

Ms Karen Nortje presented on the downstream intervention aspect of the project. This aspect focuses on the health and social impacts of improperly treated sewage. The focus is on implementing interim interventions aimed at assisting communities located downstream of wastewater treatment works. These are communities who often have to rely on river water which is contaminated by sewage flowing out of improperly functioning treatment works. The interventions implemented under this component are based on the recognition that while the municipality is working hard to ensure that people have access to clean water, there are challenges which often lead to delays in service delivery. Therefore interim measures need to be taken. The project team is currently conducting a water quality intervention study which aims to introduce community members to two types of household water treatment methods with the hope of improving the quality of the drinking water in the community. The other intervention implemented under this

The focus of the downstream component is on implementing interim interventions aimed at assisting communities located downstream of WWTW.

component involves the improvement of the community's agency in relation to wastewater management and the water they access. The project team hopes to help improve community empowerment and the community's voice with respect to the impacts of poorly functioning wastewater treatment plants. The project team is also involved in creating opportunities for knowledge sharing between scientists and communities.



Figure 1. Team CSIR at Ga-Manoke village. This photo was taken during a community workshop.

## BOX 2.

### Session Discussion Points:

A question was raised on whether the impacts of ventilated pit latrine toilets on groundwater quality were being investigated by the CSIR team. In response, Dr Claassen explained that this work did not form part of the Water Sustainability Flagship Project scope. However, the CSIR has done considerable work on this topic in other projects. The focus of the current project is only on the impacts of WWTW and not sanitation in a broad sense.

A question also was asked about whether the CSIR team had considered that the Sekhukhune District Municipality as a water services authority has to provide water and sanitation-related services, but lacks the required capacity to do so. In response, Dr Claassen explained that although lack of capacity is acknowledged as a serious issue, this should not prevent the people present at the workshop from exploring other approaches that require less capacity. There is also a need to start thinking about how the municipality can best achieve its goals with the resources that are available.

## Workshop Session Two: The desired future of the Sekhukhune District Municipality

**Facilitators:** Dr Marius Claassen and Mr Elliot Moyo

The facilitators asked the workshop participants to draw on their knowledge and experiences, and write down ideas about the future they desire for the Sekhukhune District Municipality. This exercise had a particular focus on water and wastewater treatment issues. The participants were encouraged to be imaginative and to write down what they would like the municipality to achieve in future, even if these aims may currently seem very ambitious.

Small pieces of paper were handed out to the participants, and they were asked to document one idea per piece of paper. This method, also known as the Zielorientierte Projektplanung (ZOPP<sup>11</sup>) technique (GTZ, 1991), was used to ensure that all participants had an equal opportunity to contribute to this exercise. ZOPP can be translated into English as “Objectives-Oriented Project Planning”. The ZOPP method is an easy way to obtain diverse opinions from a group of people relatively quickly. After each participant had written down their ideas, the pieces of paper were placed on a wall for everyone to see. The facilitators announced that once the ideas were up on the wall they were no longer the property of each individual participant, but would be owned by the group. The individual ideas were subsequently organised into different thematic areas:

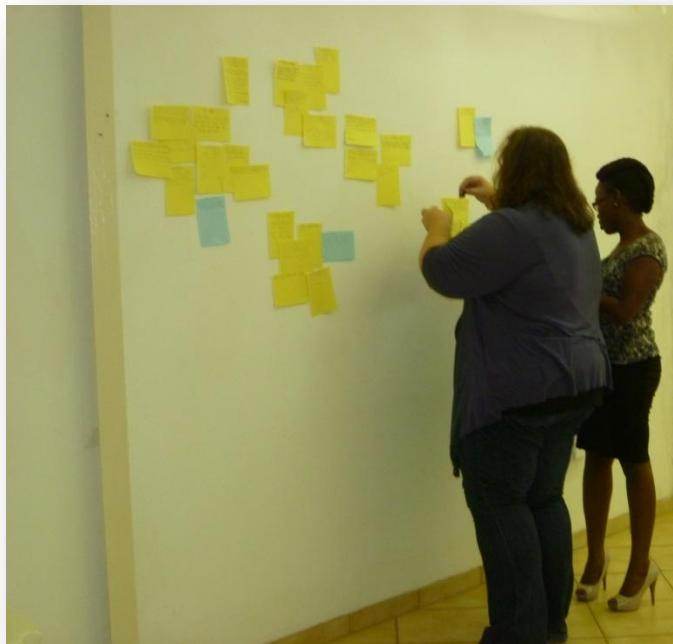
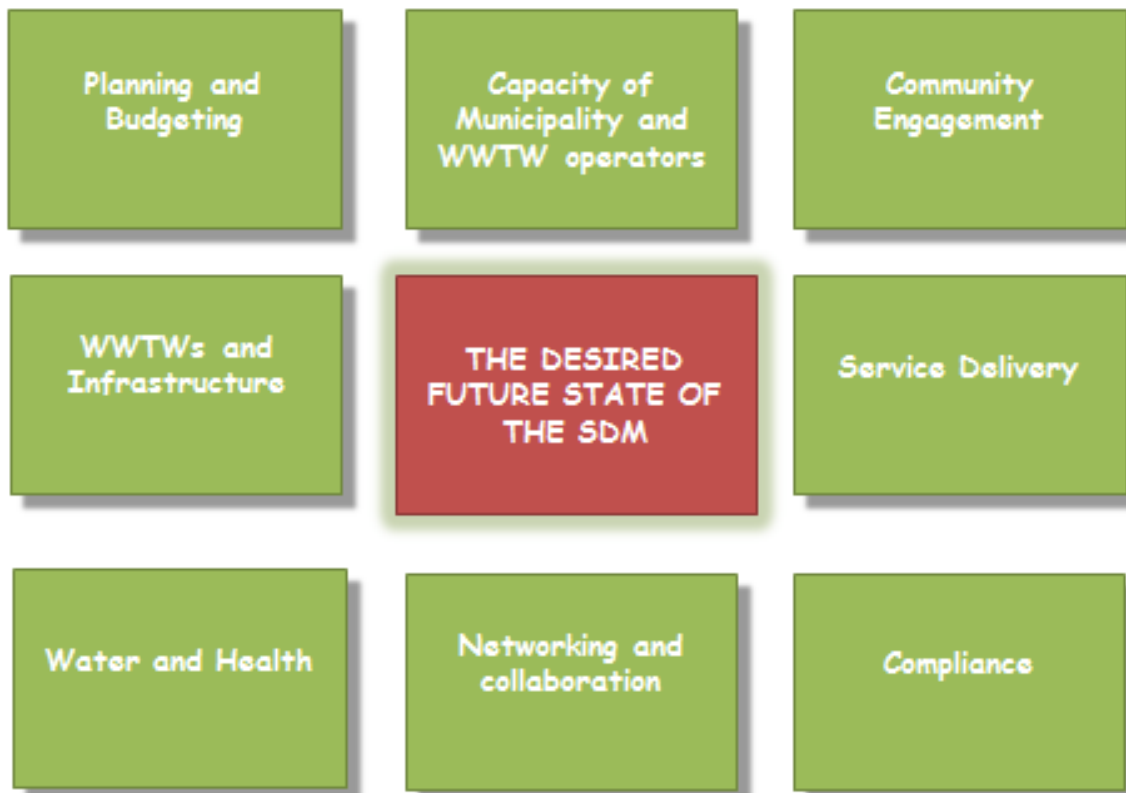


Figure 2. CSIR team members putting the inputs from the workshop participants on the wall for everyone to see.

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<sup>11</sup> Gesellschaft für Technische Zusammenarbeit (GTZ). 1991. Methods and Instruments for Project Planning and Implementation. Eschborn: Germany.



***Planning and Budgeting***

- All systems should have a budget allocation.
- We deem it important that enough budget should be allocated to deal with wastewater treatment upgrades, maintenance etc.
- Every WWTW should have its own budget.

***Capacity of the Municipality and WWTW Operators***

- The municipality's top management needs to give the necessary support to WWTW in terms of providing skilled personnel.
- All vacant positions related to WWTW need to be filled.
- Skilled operators/process controllers who have a broad knowledge and understanding of processes and operation procedures in their respective treatment plants are required. These operators/process controllers will also assist with the performance of their respective WWTW to thereby improve the receiving water quality.

***WWTW and Infrastructure***

- It is important to start looking at the upgrading of existing infrastructure.
- It is necessary to efficiently remove phosphates and nitrates in WWTW in the Sekhukhune District Municipality.
- An effective and efficient WWT system is required.
- It is important to have a sewerage works with a design capacity to accommodate the surrounding population.
- Well-functioning and reliable wastewater treatment infrastructure is needed.
- Infrastructure needs to be improved/developed otherwise we will have a challenge in the future because inadequate infrastructure can affect everyone in the district.
- All treatment works need to be completed so that all people and communities around this municipality will get clean water in their yards.
- All treatment works that are not properly constructed should be identified and urgently repaired to render them functional. This may be

- less expensive than constructing new WWTW to replace dysfunctional ones.
- The municipality should treat the effluent before discharging it into the system
- A practical maintenance and operational system is needed for all existing WWT infrastructure (O&M).
- Barricade dam and reservoir security to pumps and house connection be free for all

### **Community Engagement**

- Clean water should be supplied to the community.
- It is important to work together to help the community, teach them about water and how they should treat water if it is not clean. Even if their water is clean, community members should learn not to waste water.
- The municipality should engage communities as stipulated in the IDP in order to identify challenges that the community is facing with regards to WWTW.

### **Compliance**

- All systems should operate legally in terms of licensing and registration.
- Wastewater treatment should improve so that the municipality can strive to obtain a Green-drop certificate.
- The municipality should provide good quality wastewater effluent.
- The municipality must see to it that all of its WWTW are compliant before their final effluent is discharged into the river.
- Effective monitoring is required.
- Reduced CRR is needed.
- Check the sewerage and purification form to perform clean before they release water to the river.

- All systems should comply with regulation 17 or 2384 of the DWA Green-drop programme.

### **Water and Health**

- Sekhukhune District Municipality should be a cholera-free zone.
- Consistently clean drinking water should be provided to the community.
- I want to see people use clean water and drinking healthy water.
- All systems should comply with occupational health standards.
- Water is indispensable for human life, and therefore it should remain pure/healthy for consumption.
- The community should be educated on the safety of water or the health hazards of impure water before utilising it.

### **Service Delivery**

- Adequate and fully functional WWTW are needed.
- Adequate and fully functional water supply infrastructure for all villages is needed.
- The nasty smells at WWTW should be dealt with.
- Service delivery to communities should be prioritised and should be good and efficient.
- All communities within the district have reliable, safe and efficient access to water services.
- The pump station at our community of Ga-Manoke should be fast-tracked.

### **Networking and collaboration**

- All stakeholders must work together and take responsibility for their actions and jobs.



**Reflecting on the inputs:**

*From the above session a number of thematic areas emerged that sketch the desired future for the Sekhukhune District Municipality. These topics indicate the importance of planning and budgeting for the future, investing in the skills and capacity of staff, engaging with the community and other stakeholders on future planning, complying with national standards and providing water and sanitation services to all parts of society. The participants also emphasised the need to improve and repair existing infrastructure rather than always investing in new infrastructure. This reflects the importance of focusing on existing available resources and taking full advantage of their potential. Having together formulated a desired future for the municipality, the participants were subsequently asked to reflect on the obstacles and constraints that may stand in the way of achieving this desired future.*



**Figure 3.** Workshop participants write down their thoughts on pieces of paper to be put up on the wall during an interactive session.

## Workshop Session Three: Obstacles and constraints to achieving the desired state

The aim of this session was to allow the participants to identify the obstacles and constraints currently preventing them from attaining the desired future state as set out in the previous session. The participants were asked to each write on a piece of paper what they perceive to be obstacles and constraints to achieving the desired future state. The same method as for the “desired future state” process was followed. A number of themes emerged from the participants’ inputs. These are:

The participants emphasised the need to repair and improve existing infrastructure, rather than investing in new infrastructure.





### **Leadership and politics**

- Effective/enhanced leadership and management
- Politicians
- Municipality management must make finance/budget available to improve/ratify O&M.
- Municipality management needs to be advised of the importance of water and sanitation.
- The only thing that prevents us from achieving all of these (desired future state objectives), is how we deploy our own people who are unqualified for that type of work, and have no knowledge about water.
- Leadership and cooperation between sectors is lacking.
- Greediness and selfishness of those in power who do not prioritise achieving and meeting the basic needs of the poor

### **Planning and management**

- Not implementing the municipality's plans (IDP) is an obstacle to getting us to the desired future.
- There is no togetherness in implementing our plans between the community and the municipality.
- Lack of operation and maintenance manual
- Lack of planning
- Varied and critical competing needs overshadow WWT attention.

### **Capacity**

- Most wastewater plants are operated by general workers.
- Unskilled process controllers and lack of capacity
- Limited capacity in analysing the wastewater treatment environment and influencing priorities for attention.
- Shortage of human resources/capacity
- Poor workmanship by contractors who by far lack the experience needed for the construction of the infrastructure.

### **Communication and cooperation**

- Lack of good communication between the community and the municipality.
- Poor communication with officials or technicians.
- People do not understand the operations of the water sector.
- Communication, communication, communication, communication!
- Lack of communication and planning between the government and its people
- Communication. Who needs to communicate?
- I think it's the lazy officials who do not want to give reports from the community to our district. The district does not have all of the information it needs.
- Lack of cooperation between support departments, e.g. finance/supply chain management.

### **Resources**

- Availability of resources
- Lack of resources, i.e. capacity, shortage of skills, financials: cash flows, budgets, unemployment, aging infrastructure

### **Financial Obstacles**

- Budget not used well
- Sufficient budget should be put in place to cater for the works system and refurbish where necessary to make systems efficient.
- Budget allocation
- Lack of proper budgeting that leads to poor financial distribution and management
- Budget constraints

### **Infrastructure**

- Aging infrastructure
- Dilapidated infrastructure
- WWTW are being overloaded and poorly operated and this makes the removal of phosphates and nitrates difficult.

### **Reflecting on the inputs:**

*Considering the participants' inputs with respect to the challenges and obstacles to the desired future, it is apparent that the lack of communication and cooperation is currently a major issue in the municipality. These communication and cooperation challenges exist within the municipality and between the municipality and relevant stakeholders, especially the communities they serve. A number of concerns were raised with respect to the lack of an effective flow of communication among water-related stakeholders in the Sekhukhune District. The exact channels of communication between the community and the authorities with respect to water issues are currently not clear. People often do not have an idea of who to engage and how to do so. This indicates that there is currently an absence of a consolidated effort to get the relevant information to the relevant people.*

Participants noted that the lack of proper financial management and insufficient budget allocated to wastewater management is a prominent issue to overcome.

*Another prominent issue that featured in the participants' inputs related to a lack of proper financial management and insufficient budget being allocated to wastewater management, which affect the effective functioning of WWTW. Operational and technical managers do not have control of wastewater treatment budgets and are often left in the dark with regard to the budget available to them and how the overarching municipal budget is being spent.*

*Finally, the participants raised concerns about the lack of capacity in the Sekhukhune District Municipality, especially at the technical level. The municipality also still needs to formulate a clearer understanding of the class and qualifications of process controllers for individual plants across the district. In terms of technical management there is limited capacity with respect to analysing existing problems within the wastewater treatment environment and thereby influencing higher management levels in terms of which WWTW should be prioritised.*

## Workshop Sessions Four and Five: Four corner discussions - coming up with solutions

In this session the participants were divided into four groups that were representative of the different affiliations and municipal management levels present at the workshop. Each of these groups was given a specific “Obstacles and Challenges Theme” to discuss, and was tasked with identifying and agreeing on three immediate actions that could be taken to address the issues identified under their theme.

### Group One: Planning and Budgeting

In their feedback, the group highlighted three practical steps that could be taken to improve the planning and budgeting regarding wastewater treatment in the district.

#### Three key solutions:

- A part of the budget should be ring-fenced for a particular wastewater treatment scheme.
- A well-defined business plan with well-defined and costed activities also needs to be in place. A well-structured operations and maintenance plan also needs to be developed and have clear time lines for review.
- Existing infrastructure should be optimised, that is maintained and repaired, rather than investing in new infrastructure by default.



Figure 4. A representative from Group 1 gives feedback to the workshop participants.

#### BOX 3.

##### Discussion points for Group One

What came out from this discussion is that the water services budget is not always spent on water services. There is therefore a strong need to make sure that the water services budget is directed at specific schemes. One of the workshop participants attributed this problem to the fact that water quality managers at municipal level do not control their own budget and are not able to monitor how the water services budget is being spent.

### Group Two: Compliance

A number of systems, guidelines, legislation, principles, laws and by-laws are in place to ensure compliance with wastewater and sanitation-related matters. The challenge lies with

the implementation of these measures. The group agreed that there was a need for the monitoring and evaluation of the current wastewater treatment system. The group also felt that it is the municipality's responsibility to ensure that they employ skilled and qualified personnel and train their staff members to be competent.

### **Three key solutions**

- Sufficient financial resources need to be made available for wastewater treatment and proper budgeting is required.
- Skilled and qualified staff members in relation to wastewater treatment need to be hired.
- Consistent monitoring and evaluation on whether the municipality is still complying needs to be in place. If the municipality is not compliant, the compliance guidelines and principles should be enforced.

#### **BOX 4.**

##### **Discussion points for Group Two**

The group discussion centred on the question of hiring skilled and qualified personnel in relation to wastewater treatment and the need to know in which positions people are needed the most. A critical questions raised on this point was how the Sekhukhune District Municipality would be able to attract skilled people, seeing as there are much bigger and better resourced municipalities in the country who are also looking for the same type of skilled people. It was suggested that the municipality should come up with a corporate services skills retention strategy and should draft a shared services agreement with bigger municipalities that could focus on skills sharing etc. It was also agreed that it was very important for all plants to be licensed and to know which type of people would need to be hired for different WWTW.

### **Group Three: Networking, Collaboration and Community Engagement**

This group's feedback focused on the importance of working together and sharing information effectively.

### **Three key solutions**

- The link between the Sekhukhune District Municipality and communities needs to be intensified because not all of the local municipalities in the district operate as water services authorities. It is important for the municipality's public relations office to get in touch with local communities so that they know who at the municipality they need to talk to.

- Water committees in local villages need to be strengthened and revived. The mandate, roles and responsibilities of these committees should also be stated clearly to avoid confusion.
- The Sekhukhune District Municipality should liaise with communities to address waste disposal issues which affect water quality and health at the community level.



Figure 5. A representative from Group 3 gives feedback to the plenary.

#### BOX 5.

##### Discussion Points for Group Three

This discussion focused on some points of clarity regarding water issues in Ga-Manoke village. This village forms part of Greater Tubatse Local Municipality, which is not a water services authority.

Some points of clarity regarding water issues at Ga-Manoke village in particular were discussed following this group's feedback session. This village forms part of the Tubatse Local Municipality, which is not a water services authority. Members of the community tend to take their water-related concerns to the local rather than the district municipality. The Ga-Manoke representatives in the workshop were told to direct their concerns at the Sekhukhune District Municipality's regional office in Praktiseer.

Another point of concern that was raised was the issue of mine wastewater being released into the Sekhukhune District Municipality's WWTW.

#### Group Four: Infrastructure

The group reported back on the poor state of wastewater treatment infrastructure within the Sekhukhune District. Infrastructure includes storage facilities, pipelines, treatment works and reticulation systems. The municipality currently faces challenges related to aging and limited infrastructure as well as vandalism of available infrastructure. The group expressed the need for wastewater treatment infrastructure to form an integral part of Spatial Development Plans in the district.

#### Three Key Solutions

- The Sekhukhune District Municipality has for a long time been operating with an outdated Water Services Development Plan (WSDP). There is now a need for a new

and improved plan. The WSDP serves as the primary tool for water services infrastructure investments in the district. In order to develop a new WSDP, an inventory of existing infrastructure needs to be conducted and major risk areas must be prioritised. Also, the WSDP serves as the primary tool for water services infrastructure investments in the district.

- There is also a need to develop a sound Asset Management Plan (AMP). Such a plan will allow for district-wide asset management planning, with a focus on specific WWTW.
- There needs to be a focus on securing resources to implement the identified plans in the short and medium to long term.
- A process for ring-fencing resources needs to start in the municipality. This will enable the channelling and securing of resources for individual WWTW.

**BOX. 6.**

**Discussion points for Group Four**

The solutions suggested in this group session, although not immediately implementable, set the basis for more short-term actions to be identified, prioritised and implemented. As part of the WSDP and AMP, the challenges faced by each of the WWTW need to be recorded. This will then assist the municipality to understand where to focus its efforts. In addition, a process of ring-fencing resources to commit to individual WWTW needs to be implemented.



## Conclusion

The concluding remarks were made by Mr Machaba, the Director of Technical Services of the municipality. Mr Machaba expressed the hope that each participant would have learned from the workshop and would be able to take this learning back to the different constituencies or organisations that were represented at the workshop. He also expressed the need for following up on the suggestions that had been submitted and on evaluating those suggestions to see whether they are practically implementable. He suggested that in future it might be good to choose a specific area, such as Ga-Manoke, and to demonstrate the difference that can be made as the result of focused interventions. In addition, he highlighted that resources will always be a problem and that budgets will never be big enough. As a result there is a need to prioritise actions that can be considered quick wins and can have a positive impact on the community.

*"I hope this was a workshop and not just a 'talk shop'. I hope this is the first interaction and that there will be follow-ups" Workshop Participant.*

Overall, the workshop seemed to have been well received by the participants present. Constructive and interesting ideas were shared that could contribute towards addressing some of the major challenges standing in the way of the Sekhukhune District Municipality's desired future state. These ideas were supported the original aim of the workshop, which was to see what can be done rather than to lament what is not being done. It is now important for the municipality, with the support of its stakeholders and partners, to take the outcomes of this workshop further. Even small, incremental changes can have a significant impact on improving the wastewater treatment situation in the Sekhukhune District.



## **Appendix 1: List of participants.**



### Sekhukhune District Municipality Workshop on Wastewater Treatment

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**PLEASE NOTE:** In the interest of transparency we attach the original list as signed at the workshop (next page). The reason we do so is because some names are unreadable and were left off the typed list (see open spaces in the typed list).



## Sekhukhune District Municipality Workshop on Wastewater Treatment

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