

# GREAT KEI LOCAL MUNICIPALITY



## ICT DISASTER RECOVERY PLAN POLICY 2023-2024



## GLOSSARY OF ABBREVIATIONS

| ABBREVIATIONS | DEFINITION                                    |
|---------------|---|
| BCMS          | Business Continuity Management Systems        |
| BC            | Business Continuity                           |
| DR            | Disaster Recovery                             |
| DRP           | Disaster Recovery Plan                        |
| HR            | Human Resources                               |
| ICT           | Information and Communication Technology      |
| MTO           | Maximum Tolerable Outage                      |
| RTO           | Recovery Time Objective                       |
| RPO           | Recovery Point Objective                      |
| ITIL          | Information Technology Infrastructure Library |
| RACI          | Responsible, Accountable, Consulted, Informed |
| IROC          | ICT Recovery Operations Centre                |
| BAU           | Business As Usual                             |

## GLOSSARY OF ABBREVIATIONS

| Terminology                    | Definitions   |
|--------------------------------|---|
| Business                       | A formal requirement in order for a specific business function to perform its required task, such as to implement a project initiative.   |
| Manager                        | Each department (HR, Finance, ICT, etc.) should have a Manager employed to perform managerial tasks.  |
| Main Site                      | Municipal Head Office and assumed in some case to be the location of the Great Kei Main Offices   |
| Maximum Tolerable Outage       | The amount of time the identified critical business function maybe unavailable before the Great Kei Municipality is severely impacted.  |
| ICT Recovery Operations Centre | The offsite command centre that gets established, by approval within the framework of the ICT DRP, for the purpose of ICT recovery operations & necessary relocation of identified resources. |
| Simulation Lite                | A simulation DR test conducted by 2-3 individuals, usually the ICT Manager, the ICT DR Team Leader and an   |



|   |   |
|---|---|
|   | assistant.  |
| Procurement   | The external acquisition of services, assets and consumables, whether by outright purchase, hire, licensing or outsourcing.   |
| Recovery Point Objective  | The worst data loss that the Great Kei Municipality is willing to accept. In other words, this is the point from which recovery of lost data must take place.   |
| Service   | A Service delivered to the Great Kei Municipality by ICT or by 3rd parties. Examples: email, Internet, printing.  |
| Contract  | An agreement (which may be verbal or in writing) entered into with the intention of creating legally binding consequences. The contract includes all annexures, schedules, etc., as well as any agreed amendments.  |
| Incident  | Typically impacts a specific service or server. Examples of Incidents include a compromised service resulting from a hacking attack or the partial loss of an office area due to a burst water pipe.  |
| Disaster  | A significant or unusual Incident that has long-term implications. An example of a Disaster would be the loss of a building due to a fire.  |
| Fit-for-purpose   | An approach or solution that is pragmatic, by tailoring the scope of a piece of work, effort or solution to the prioritised elements, which can be better understood and operated.  |
| Disaster (formal definition as per The Disaster Management Act) | <p>The Disaster Management Act (Act No. 57 of 2002) defines a Disaster as a progressive or sudden, widespread or localised, natural or human-caused occurrence which:</p> <ul style="list-style-type: none"> <li>■ Causes or threatens to cause: <ul style="list-style-type: none"> <li>Death, injury and/or disease.</li> <li>Damage to property, infrastructure and/or the environment.</li> <li>Disruption of life, within the community.</li> </ul> </li> </ul> |



|                       |  |
|-----------------------|--|
|                       | of a magnitude that exceeds the ability of those affected by the Disaster to cope with its effects using only their own resources. |
| Test Plan The DR Test | Plan document provides guidance on the types, details, scheduling, effort and activity required for regular testing every year.    |

## 1. INTRODUCTION

This policy guides the Great Kei Municipality in the establishment, operation and continuous improvement of an ICT DR Framework: a system of five inter - dependant documents that co-exist to support the most important document i.e. the ICT DR Plan.

This policy provides background information on what ICT Disaster recovery is, as well as the role of this ICT policy, to provide governance and controls to manage the ICT Recovery capability of the Great Kei Municipality.

The policy supports the Great Kei Municipality's ICT Governance developed with the legislative environment in mind, as well as to leverage internationally recognised ICT standards.

### 1.1 ICT DR FRAMEWORK

This ICT DR framework consists of five key documents, and resides in a broader landscape of relevant process within the Great Kei Municipality. The five main ICT DR documents are listed as follows:

| Document  | Summary  |
|---|--|
| ICT DR Policy.                                  | Broad policy, principles, high level framework & obligations.                                  |
| ICT Risk & Impact Analysis. (ICT Risk Register) | Risk & Vulnerability Analysis; and Business Impact Assessment.                                 |
| ICT DR Plan.                                    | Actionable Plan in event of Disaster incl. teams, processes & forms/templates.                 |
| Definition of ICT DR Architecture.              | Technical Assessments; Architecture(s) for Current Live & DR environment; and Service details. |
| ICT DR Test Plan.                               | Tiered Test plan.  |





## **2. LEGISLATION**

The policy was drafted bearing in mind the legislative conditions, as well as to leverage internationally recognised ICT standards.

The following legislation, among others, were considered in the drafting of this policy:

Constitution of the Republic of South Africa Act, 1996;

Copyright Act, Act No. 98 of 1978;

Electronic Communications and Transactions Act, Act No. 25 of 2002;

Minimum Information Security Standards, as approved by Cabinet in 1996;

Municipal Finance Management Act, Act No. 56 of 2003;

Municipal Structures Act, Act No. 117 of 1998; Municipal Systems Act, Act No. 32, of 2000;

National Archives and Record Service of South Africa Act, Act No. 43 of 1996;

Promotion of Access to Information Act, Act No. 2 of 2000;

Personal Information Act, Act No. 4 of 2013;

The Disaster Management Act, Act No. 57 of 2002;

Regulation of Interception of Communications Act, Act No. 70 of 2002; and

Treasury Regulations for departments, trading entities, constitutional institutions and public entities, Regulation 17 of 2005.

The following internationally recognised ICT standards were leveraged in the development of this policy:

Control Objectives for Information Technology (COBIT) 5, 2012;

ISO 27002:2013 Information technology — Security techniques — Code of practice for information security controls;

## **3. OBJECTIVE OF THE POLICY**

Provide guidance on developing all related ICT DR documents, and prioritise the reason for the inter-relationships;

Protect the operations of the Great Kei Municipality, consumers, licensees, stakeholders and staff by minimising the impact of significant interruption to the Great Kei Municipality through the effective implementation and maintenance of ICT DR arrangements and solutions;

Recover the critical prioritised operations and services, in a controlled manner to meet the operational requirements of the Great Kei Municipality, law, regulation or other factors; and



Ensure that business continuity is an essential part of business planning and future development, and that this policy be integrated into an overall municipal Disaster Management Plan at a later stage of business continuity being improved.

#### **4. THE AIM OF THE POLICY**

The aim of this policy is to ensure that the Great Kei Municipality conforms to standardised ICT Disaster recovery governance and controls, in such a way that it achieves a balance between ensuring legislative compliance, best practice controls, service efficiency and that the risks associated to the management of effective ICT DR, are mitigated. This policy supports the Great Kei Municipality's Corporate Governance of ICT Policy.

#### **5. APPLICATION AND SCOPE**

The ICT DR policy will become a part of business continuity frameworks but focuses

on a "fit for purpose" ICT DR approach that internal and external ICT systems in the event of a Disaster.

This ICT DR Policy has been developed to guide and assist Great Kei Municipality to be aligned with internationally recognised best practice DR controls and procedures. This policy further recognizes that municipalities are diverse and therefore adopts the approach of establishing principles and practices to support and sustain the effective control of Disaster recovery in the Great Kei Municipality.

The policy applies to everyone in the Great Kei Municipality, including its service providers/vendors. This policy is regarded as being crucial to the operation and availability of ICT systems of the Great Kei Municipality.

#### **6. ADMINISTRATION OF THE POLICY**

The ICT Manager or delegated authority within the Great Kei Municipality is responsible for maintaining this policy. The policy must be reviewed by the ICT Steering Committee on an annual basis and recommended changes must be approved by Council.



## **7. GENERAL OF THE POLICY**

The Great Kei Municipality must initialise a DR workshop by identifying and inviting key Municipal stakeholders, ICT Department / Section members, key external Service Providers and Department Managers on an annual basis.

The five key ICT DR documents must be shared with the workshop attendees at least 5 days before the workshop, for prior reading.

An ICT DR Team Leader must be appointed, along with an Alternate Leader. A provisional ICT DR Team must be defined according to the roles and responsibilities of the ICT DR Plan.

A high level plan must be reviewed, by delegating specific documents, sections and activities to the ICT DR Team.

The ICT DR Plan is a critical document to be utilised by the Great Kei Municipality in the event of a Disaster. The ICT DR Plan helps guide recovery

processes to the return of normal operator BAU).

## **8. POLICY: EXTERNAL POLICIES AND PROCESSES**

This policy will also make reference to other documents that will have interdependency, in the life-cycle of the ICT DR documentation.

These inter-dependencies must be explicitly documented, be updated regularly, and Municipal Committee informed via reporting of key status and changes.

These other policy and processes include, (but are not limited to):

- ICT Governance Framework ;
- ICT Security Policy
- Change Management Policy Patch Management Policy

## **9. POLICY: ICT IMPACT AND RISK ANALYSIS**

A formal impact and risk assessment shall be undertaken by/with Departmental Managers to determine the requirements for the Disaster recovery plan, from Municipal operations.

The IT Manager / Risk & Logistics Administrator must attend a minimum of 50% of all impact and risk analysis assessment meetings, with Department Managers.

The IT Manager must advise on the process and answer any key discrepancies in the development of the Impact and Risk analysis



The individuals performing the business impact & risk analysis, must summarize the ICT system recovery requirements, to be communicated to the ICT Manager and the ICT team (including the MTO, RTO and RPO requirements).

The recovery requirements should categorize the Municipal operations or systems in levels of priority.

The Business Impact and Risk Analysis must be reviewed: Once a year; or whenever there is a key identification that additional planning is required to cater for improved Disaster recovery to support the business.

#### **10. POLICY: ICT DR PLAN**

The Great Kei Municipality shall develop a comprehensive IT Disaster recovery plan.

The ICT DR Plan should cover all essential and critical infrastructure elements, systems and networks, in accordance with key business activities.

All staff must be made aware of the ICT DR Plan and their own respective roles.

The ICT DR Plan is to be kept up to date at least bi-annually, to take into account changing circumstances.

A single ICT DR Team is to be appointed, with key roles and responsibilities, to town the process of recovery in the event of Disaster. Note that these roles will require various senior managers and representatives of the Great Kei Municipality

The DR Plan must contain all relevant information, templates and procedures in order for the ICT DR Team to be informed (prior to, and during a Disaster) on how to recover the key ICT systems and applications.

#### **11. POLICY: ICT DR TEST PLAN**

All senior members of the Municipal Management, key stakeholders and

service providers, must be informed of the annual DR Test Plan within 1 month of the start of the new fiscal year.

The ICT DR Plan must be periodically tested in a simulated environment to ensure that it can be implemented in emergency situations and that the management and staff understand how it is to be executed.

Within any calendar year, the following test requirements are considered to be minimal:

Follow the Implementation Plan as provided in the ICT Test Plan; At least one Simulation test; and

At least one other test as defined in the Test Plan.





## 12. POLICY: ICT DR TEAM

The structure, roles and responsibilities of the ICT DR Team is defined in the ICT DR Plan. These roles must be delegated to key individuals within the Great Kei Municipality.

This team does not exist as a day-to-day ongoing business entity, but the members come together as a virtual team, to orchestrate all matters relating to an actual or potential Disaster. The team is responsible for the ongoing task of Disaster recovery planning, maintenance of the ICT DR Plan, including the implementation of Disaster prevention activities.

The Senior IT and Test team must take considerable care during any test, that possible impact to business operations is investigated prior to the start of the test and checked with Departmental Managers and Applications Owners.

## 13. GREAT KEI LOCAL MUNICIPALITY APPLICATIONS

| System Name | Primary Use   | Server name                    | Location  |
|-------------|---|--------------------------------|---|
| SEBATA      | Enterprise Management System used to record, processing all finance related data.               | SEBATA (Windows Server 2019)   | Inzalo Enterprise Management System (Hosted Solution) |
| PayDay      | PayDay System   | PayDay Server (Volume Drive F) | PayDay Software Systems (Hosted Solution)             |
| Emails      | Utilised as means of communication by sending, receiving organization communication (documents) | Exchange Email solution        | Telkom (Hosted Solutions)                             |
| Internet    | Utilises on web-based application and emails  | No proxy server                | MTN (Hosted Solution)                                 |
| Firewall    | Used to monitor communication between organizations network and outside sources                 | Firewall server                | MTN (Hosted Solution)                                 |
| VPN         | Used to provide a secure connection and access to your organization network and the internet    | VPN server                     | MTN (Hosted Solution)                                 |



|                                  |                                     |              |                         |
|----------------------------------|-------------------------------------|--------------|-------------------------|
| Electricity Vending System       | Used for electricity vending system | Ontec server | Ontec (Hosted Solution) |
| Eset Nod 32                      | Anti-Virus Software                 | Windows DC2  | GKM Server room         |
| Additional Application / Servers |                                     |              |                         |
| File server (V Drive)            | Used to stored user documents       | GKM Host1    | GKM Server room         |
| File server (Z Drive)            | Banking processes                   | Windows DC1  | GKM server room         |

#### 14.REMOTE SITE

It is necessary to consider the need to store copies of key documents, data and systems away from the main office. The remote site has been identified as Chinsta. Other systems are hosted solutions and GKM is using as the remote site for hosted solutions.

#### 15.IT DISASTER RECEVOERY COMMITTEE

The IT DRP is managed by the committee of key personnel is chaired by the IT Senior Manager. Each person in the committee is described by the job function relevant to IT DR

The IT DRC will have the following functional responsibilities on an ongoing basis:

- Determine the current position on the systems
- Provide documents and backups methodologies for off-site storage on an ongoing basis
- Maintain critical systems overview and status
- Ensure that any new systems or changes in the IT network environment are included in the IT DRP
- Take full responsibility for their areas of functionality in the event of a disaster
- Ensure that recovery procedures are developed and tested in their areas.

#### 16.IT DISASTER RECOVERY RESPONSE

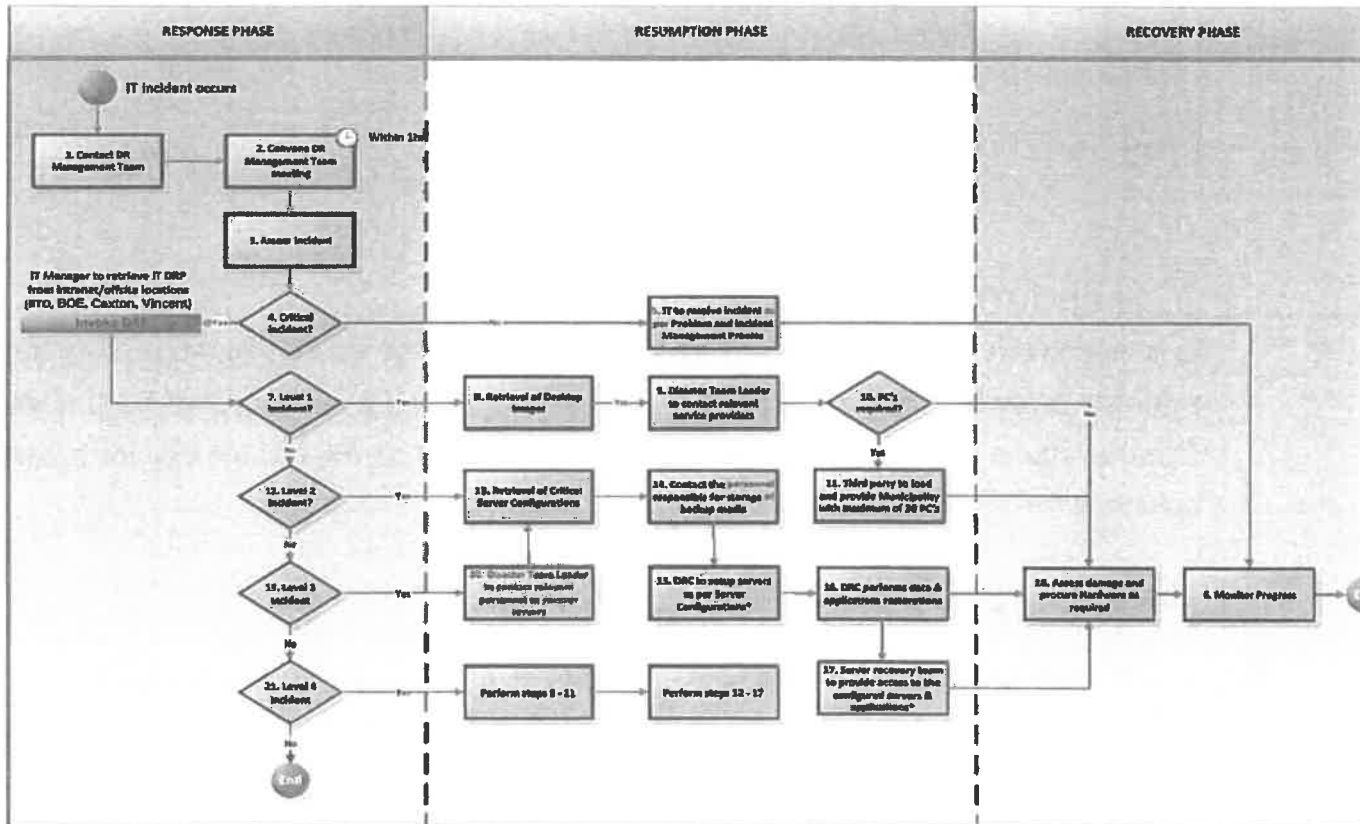
In the event of an IT related disaster the Disaster Team Leader and the Disaster management team would need to be contacted immediately.

| IT DRT           | Role            | Primary Contact | Alternative Contact |
|------------------|-----------------|-----------------|---------------------|
| Lawrence Mambila | DR Team Leader  | 043 831 5701    | 071 246 8608        |
| Ayanda Lwana     | DR Co-ordinator | 043 831 5710    | 064 642 8699        |
| Phindile Ludidi  | DR Technical    | 043 831 5711    | 072 557 8692        |



## 17. DISASTER RECOVERY PROCESS

In the event of disaster there are specific task and actions that need to be performed by the committee.



## 18. SYSTEM RECOVERY

### BUSINESS SYSTEMS RECOVERY TIME OBJECTIVES

For each department in Great Kei Municipality, the systems that are required to perform critical processes have been identified by Great Kei Municipality. For each system, the following information has been collected during a Business Impact Analysis ("BIA") performed for each division when the IT DRP was defined.

**Recovery time objective ("RTO")**—the first point at which a process requires access to the system. The RTO for each system is defined by the shortest RTO for the processes it supports.

**Recovery point objective ("RPO")**—the maximum data loss that is tolerable to the processes.



The following systems were selected as key systems which would need to be recovered as a priority.

| System Name                 | Priority | Recovery Timeframe |
|-----------------------------|----------|--------------------|
| <b>Server Applications</b>  |          |                    |
| SEBATA                      | 1        | 8 Hours            |
| PayDay                      | 1        | 8 Hours            |
| Ontec (Electricity Vending  | 1        | 8 Hours            |
| Email                       | 1        | 8 Hours            |
| Internet                    | 1        | 8 Hours            |
| Telephone Management System | 2        | 48 Hours           |
| Firewall                    | 2        | 48 Hours           |
| VPN                         | 2        | 48 Hours           |
| Hyper V (Active Directory)  | 2        | 48 Hours           |
| Printing Solution           | 2        | 48 Hours           |
| Website                     | 1        | 8 Hours            |

### 19.IT SUPPORT

| Name             | Job Title                  | Primary Contact | Alternative Contact |
|------------------|----------------------------|-----------------|---------------------|
| Lawrence Mambila | Municipal Manager          | 043 831 5701    | 071 246 8608        |
| Ayanda Lwana     | Chief Financial Officer    | 043 831 5710    | 064 642 8699        |
| Phindile Ludidi  | IT Desktop/ LAN Technician | 043 831 5711    | 072 557 8692        |

### 3<sup>RD</sup> PARTIES

The relevant 3<sup>rd</sup> parties that would be required during a disaster situation have been outlined in this section

| ENTITY             | SUPPORT AREA                     | CONTACT PERSON | CONTACT NUMBERS             |
|--------------------|----------------------------------|----------------|-----------------------------|
| SEBATA             | Enterprise Management System     | Christo Venter | 082 561 5919 / 012 492 6600 |
| PayDay             | Payroll                          | Aldo Taylor    | 072 608 7799 / 012 803 7730 |
| MTN                | Internet, VPN, VOIP and Firewall | Zintle Mbalo   | 083 200 5765 /              |
| Ontec              | Electricity Vending System       | Serchen Reddy  | 072 585 2598 / 021 928 1700 |
| RGL Trading (ITEC) | Printing Solution                | Anathi Zenzile | 060 500 0347 / 043 735 0810 |
| Wakahina           | Website                          | Sfiso Themba   | 083 265 4157                |





**INCIDENT LOG**

| Incident | Description | Area Affect ed | Date | Time | Logg ed by | Resolution |              |       |                     |
|----------|-------------|----------------|------|------|------------|------------|--------------|-------|---------------------|
|          |             |                |      |      |            | Date       | Resolv ed by | Cause | How was It resolved |
|          |             |                |      |      |            |            |              |       |                     |
|          |             |                |      |      |            |            |              |       |                     |
|          |             |                |      |      |            |            |              |       |                     |
|          |             |                |      |      |            |            |              |       |                     |
|          |             |                |      |      |            |            |              |       |                     |
|          |             |                |      |      |            |            |              |       |                     |
|          |             |                |      |      |            |            |              |       |                     |

**RECOVERY LOG**

| Application | RTO | Start |      | End  |      | Results | Comments |
|-------------|-----|-------|------|------|------|---------|----------|
|             |     | Date  | Time | Date | Time |         |          |
|             |     |       |      |      |      |         |          |
|             |     |       |      |      |      |         |          |
|             |     |       |      |      |      |         |          |
|             |     |       |      |      |      |         |          |
|             |     |       |      |      |      |         |          |

**20. GREAT KEI LOCAL MUNICIPALITY NETWORK DIAGRAM**

The diagram provides illustration of Great Kei Local Municipality network diagram.

**DOCUMENT APPROVAL**

Mr. LN Mambila  
Municipal Manager

*LN Mambila*  
.....  
Date: 04-07-2022

Honourable Cllr NW Tekille  
GKM Mayor

*NW Tekille*  
.....  
Date: 04 July - 2022

