West Coast District Municipality Disaster Recovery Plan

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Introduction

This Disaster Recovery Plan (DRP) captures, in a single repository, all of the information that describes West Coast District Municipality's ability to withstand a disaster as well as the processes that must be followed to achieve disaster recovery.

Definition of a Disaster

A disaster can be caused by man or nature and results in West Coast District Municipality's IT department not being able to perform all or some of their regular roles and responsibilities for a period of time. West Coast District Municipality defines disasters as the following:

- One or more vital systems are non-functional
- The building is not available for an extended period of time but all systems are functional within it
- The building is available but all systems are non-functional
- The building and all systems are non-functional

The following events can result in a disaster, requiring this Disaster Recovery document to be activated:

- Fire
- Flash flood
- Pandemic
- Power Outage
- War
- Theft
- Terrorist Attack

Purpose

Note that in the event of a disaster the first priority of West Coast District Municipality is to prevent the loss of life. Before any secondary measures are undertaken, West Coast District Municipality will ensure that all employees, and any other individuals on the organization's premises, are safe and secure.

After all individuals have been brought to safety, the next goal of West Coast District Municipality will be to enact the steps outlined in this DRP to bring all of the organization's groups and departments back to business-as-usual as quickly as possible. This includes:

- Preventing the loss of the organization's resources such as hardware, data and physical IT assets
- Minimizing downtime related to IT
- Keeping the business running in the event of a disaster

This DRP document will also detail how this document is to be maintained and tested.

Scope

The West Coast District Municipality DRP takes all of the following areas into consideration:

- Network Infrastructure
- Servers Infrastructure

- Telephony System
- Data Storage and Backup Systems
- Organizational Software Systems
- Database Systems
- IT Documentation

This DRP does not take into consideration any non-IT, personnel, Human Resources and real estate related disasters. For any disasters that are not addressed in this document, please refer to the business continuity plan created by West Coast District Municipality.

Version Information & Changes

Any changes, edits and updates made to the DRP will be recorded in here. It is the responsibility of the Disaster Recovery Lead to ensure that all existing copies of the DRP are up to date. Whenever there is an update to the DRP, West Coast District Municipality requires that the version number be updated to indicate this.

Name of Person Making Change	Role of Person Making Change	Date of Change	Version Number	Notes
IT Manager	DR Lead	15/12/16	1.0	Initial version of DR Plan

Disaster Recovery Teams & Responsibilities

In the event of a disaster, different groups will be required to assist the IT department in their effort to restore normal functionality to the employees of West Coast District Municipality. The different groups and their responsibilities are as follows:

- Disaster Recovery Lead(s)
- Disaster Management Team
- Facilities Team
- Network Team
- Server Team
- Applications Team
- Operations Team
- Management Team
- Communications Team
- Finance Team

The lists of roles and responsibilities in this section have been created by West Coast District Municipality and reflect the likely tasks that team members will have to perform. Disaster Recovery Team members will be responsible for performing all of the tasks below. In some disaster situations, Disaster Recovery Team members will be called upon to perform tasks not described in this section.

West Coast District Municipality

Disaster Recovery Lead

The Disaster Recovery Lead is responsible for making all decisions related to the Disaster Recovery efforts. This person's primary role will be to guide the disaster recovery process and all other individuals involved in the disaster recovery process will report to this person in the event that a disaster occurs at West Coast District Municipality, regardless of their department and existing managers. All efforts will be made to ensure that this person be separate from the rest of the disaster management teams to keep his/her decisions unbiased; the Disaster Recovery Lead will not be a member of other Disaster Recovery groups in West Coast District Municipality.

Role and Responsibilities

- Make the determination that a disaster has occurred and trigger the DRP and related processes.
- Initiate the DR Call Tree.
- Be the single point of contact for and oversee all of the DR Teams.
- Organize and chair regular meetings of the DR Team leads throughout the disaster.
- Present to the Management Team on the state of the disaster and the decisions that need to be made.
- Organize, supervise and manage all DRP test and author all DRP updates.

Contact Information

Add or delete rows to reflect the size the Disaster Recovery Team in your organization.

Name	Role/Title	Work Phone Number	Home Phone Number	Mobile Phone Number
IT Manager	*Primary Disaster Lead*	*022 433 8480*	*N/A*	*081 288 0849*
Network Administrator	*Secondary Disaster Lead*	*022 433 8464*	*N/A*	*081 025 2418*

Facilities Team

The Facilities Team will be responsible for all issues related to the physical facilities that house IT systems. They are the team that will be responsible for ensuring that the standby facilities are maintained appropriately and for assessing the damage too and overseeing the repairs to the primary location in the event of the primary location's destruction or damage.

Role & Responsibilities

- Ensure that the standby facility is maintained in working order
- Ensure that transportation is provided for all employees working out of the standby facility
- Assess, or participate in the assessment of, any physical damage to the primary facility
- Ensure that measures are taken to prevent further damage to the primary facility
- Ensure that appropriate resources are provisioned to rebuild or repair the main facilities in the event that they are destroyed or damaged
- After West Coast District Municipality is back to business as usual, this team will be required to summarize any and all costs and will provide a report to the Disaster Recovery Lead summarizing their activities during the disaster

Contact Information

Name	Role/Title	Work Phone Number	Mobile Phone Number
Senior Manager Water Supply	*Facility Manager*	*022 433 2352*	*082 557 7686*
Manager: Electrical and Instrumentation	*Standby Facility Administrator*	*022 433 2352*	*079 963 0513*

Network Team

The Network Team will be responsible for assessing damage specific to any network infrastructure and for provisioning data and voice network connectivity including WAN, LAN, and any telephony connections internally within the enterprise as well as telephony and data connections with the outside world. They will be primarily responsible for providing baseline network functionality and may assist other IT DR Teams as required.

Role & Responsibilities

- In the event of a disaster that does not require migration to standby facilities, the team will determine which network services are not functioning at the primary facility
- If multiple network services are impacted, the team will prioritize the recovery of services in the manner and order that has the least business impact.
- If network services are provided by third parties, the team will communicate and co-ordinate with these third parties to ensure recovery of connectivity.
- In the event of a disaster that does require migration to standby facilities the team will ensure that all network services are brought online at the secondary facility
- Once critical systems have been provided with connectivity, employees will be provided with connectivity in the following order:
    - All members of the DR Teams
    - All IT employees
    - All remaining employees
- Install and implement any tools, hardware, software and systems required in the standby facility
- Install and implement any tools, hardware, software and systems required in the primary facility
- After West Coast District Municipality is back to business as usual, this team will be summarize any and all costs and will provide a report to the Disaster Recovery Lead summarizing their activities during the disaster

Contact Information

Name	Role/Title	Work Phone Number	Home Phone Number	Mobile Phone Number
Hendrik Matthews	*Manager: IT*	*022 433 8400*	*NA*	*0812880849*
Heinrich Coetzer	*Network Administrator*	*022 433 8400*	*NA*	*0810252418*

Server Team

The Server Team will be responsible for providing the physical server infrastructure required for the enterprise to run its IT operations and applications in the event of and during a disaster. They will be primarily responsible for providing baseline server functionality and may assist other IT DR Teams as required.

Role & Responsibilities

- In the event of a disaster that does not require migration to standby facilities, the team will determine which servers are not functioning at the primary facility
- If multiple servers are impacted, the team will prioritize the recovery of servers in the manner and order that has the least business impact. Recovery will include the following tasks:
    - Assess the damage to any servers
    - Restart and refresh servers if necessary
- Ensure that secondary servers located in standby facilities are kept up-to-date with system patches
- Ensure that secondary servers located in standby facilities are kept up-to-date with application patches
- Ensure that secondary servers located in standby facilities are kept up-to-date with data copies
- Ensure that the secondary servers located in the standby facility are backed up appropriately
- Ensure that all of the servers in the standby facility abide by West Coast District Municipality's server policy
- Install and implement any tools, hardware, and systems required in the standby facility
- Install and implement any tools, hardware, and systems required in the primary facility
- After West Coast District Municipality is back to business as usual, this team will be summarize any and all costs and will provide a report to the Disaster Recovery Lead summarizing their activities during the disaster

Contact Information

Name	Role/Title	Work Phone Number	Home Phone Number	Mobile Phone Number
Hendrik Matthews	*Manager: IT*	*022 433 8400*	*NA*	*0812880849*
Heinrich Coetzer	*Network Administrator*	*022 433 8400*	*NA*	*0848708219*

Applications Team

The Applications Team will be responsible for ensuring that all enterprise applications operates as required to meet business objectives in the event of and during a disaster. They will be primarily responsible for ensuring and validating appropriate application performance and may assist other IT DR Teams as required.

Role & Responsibilities

- In the event of a disaster that does not require migration to standby facilities, the team will determine which applications are not functioning at the primary facility
- If multiple applications are impacted, the team will prioritize the recovery of applications in the manner and order that has the least business impact. Recovery will include the following tasks:
    - Assess the impact to application processes
    - Restart applications as required

- o Patch, recode or rewrite applications as required
- Ensure that secondary servers located in standby facilities are kept up-to-date with application patches
- Ensure that secondary servers located in standby facilities are kept up-to-date with data copies
- Install and implement any tools, software and patches required in the standby facility
- Install and implement any tools, software and patches required in the primary facility
- After West Coast District Municipality is back to business as usual, this team will be summarize any and all costs and will provide a report to the Disaster Recovery Lead summarizing their activities during the disaster

Contact Information

Name	Role/Title	Work Phone Number	Mobile Phone Number
Hendrik Matthews	*Manager: IT*	*022 433 8400*	*0812880849*
Heinrich Coetzer	*Network Administrator*	*022 433 8400*	*0848708219*
Roland Looser	*Programmer (SAMRAS)*	*021 680 6870*	
Miguel da Silva	*Business Engineering*	*012 998 2614*	*082 789 2371*

Operations Team

This team's primary goal will be to provide employees with the tools they need to perform their roles as quickly and efficiently as possible. They will need to provision all West Coast District Municipality employees in the standby facility and those working from home with the tools that their specific role requires.

Role & Responsibilities

- Maintain lists of all essential supplies that will be required in the event of a disaster
- Ensure that these supplies are provisioned appropriately in the event of a disaster
- Ensure sufficient spare computers and laptops are on hand so that work is not significantly disrupted in a disaster
- Ensure that spare computers and laptops have the required software and patches
- Ensure sufficient computer and laptop related supplies such as cables, wireless cards, laptop locks, mice, printers and docking stations are on hand so that work is not significantly disrupted in a disaster
- Ensure that all employees that require access to a computer/laptop and other related supplies are provisioned in an appropriate timeframe
- If insufficient computers/laptops or related supplies are not available the team will prioritize distribution in the manner and order that has the least business impact
- This team will be required to maintain a log of where all of the supplies and equipment were used
- After West Coast District Municipality is back to business as usual, this team will be required to summarize any and all costs and will provide a report to the Disaster Recovery Lead summarizing their activities during the disaster

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Contact Information

Name	Role/Title	Work Phone Number	Home Phone Number	Mobile Phone Number
Hendrik Matthews	*Manager: IT*	*022 433 8400*	*NA*	*0812880849*
Heinrich Coetzer	*Network Administrator*	*022 433 8400*	*NA*	*0848708219*

Senior Management Team

The Senior Management Team will make any business decisions that are out of scope for the Disaster Recovery Lead. Decisions such as constructing a new data center, relocating the primary site etc. should be make by the Senior Management Team. The Disaster Recovery Lead will ultimately report to this team.

Role & Responsibilities

- Ensure that the Disaster Recovery Team Lead is help accountable for his/her role
- Assist the Disaster Recovery Team Lead in his/her role as required
- Make decisions that will impact the company. This can include decisions concerning:
  - Rebuilding of the primary facilities
  - Rebuilding of data centers
  - Significant hardware and software investments and upgrades
  - Other financial and business decisions

Contact Information

Role/Title	Work Phone Number	Home Phone Number	Mobile Phone Number
CFO	*022 433 8400*	*NA*	*0825577684*
MM	*022 433 8400*	*NA*	*0832935329*

Finance Team

This team will be responsible for ensuring that all of West Coast District Municipality's finances are dealt with in an appropriate and timely manner in the event of a disaster. The finance team will ensure that there is money available for necessary expenses that may result from a disaster as well as expenses from normal day-to-day business functions.

Role & Responsibilities

- Ensure there is sufficient cash on-hand or accessible to deal with small-scale expenses caused by the disaster. These can include paying for accommodations and food for DR team members, incremental bills, etc.
- Ensure there is sufficient credit available or accessible to deal with large-scale expenses caused by the disaster. These can include paying for new equipment, repairs for primary facilities, etc.
- Review and approve Disaster Teams' finances and spending

- Ensure that payroll occurs and that employees are paid as normal, where possible
- Communicate with creditor to arrange suspension of extensions to scheduled payments, as required
- Communicate with banking partners to obtain any materials such as checks, bank books etc. that may need to be replaced as a result of the disaster

Contact Information

| Role/Title	Work Phone Number	Home Phone Number	Mobile Phone Number
CFO	022 433 8400	NA	082 557 7684
Manager: Income and Expenditure	022 433 8400	NA	082 871 7943
Manager: SCM	022 433 8400	NA	083 650 6273

Disaster Recovery Call Tree

In a disaster recovery or business continuity emergency, time is of the essence so West Coast District Municipality will make use of a Call Tree to ensure that appropriate individuals are contacted in a timely manner.

- The Disaster Recovery Team Lead calls all Level 1 Members (Blue cells)
- Level 1 members call all Level 2 team members over whom they are responsible (Green cells)
- Level 1 members call all Level 3 team members over whom they are directly responsible (Beige cells)
- Level 2 Members call all Level 3 team members over whom they are responsible (Beige cells)
- In the event a team member is unavailable, the initial caller assumes responsibility for subsequent calls (i.e. if a Level 2 team member is inaccessible, the Level 1 team member directly contacts Level 3 team members).

Contact			Office	Mobile
DR Lead _Manager IT_			_022 433 8400_	_0812880849_
	DR Management Team Lead CFO		022 433 8400	0825577684
	Network Team Lead Network Administrator		022 433 8400	_0848708219_
	Applications Team Lead Manager IT		022 433 8400	0812880849
		App 1 Team Lead SAMRAS – Roland Looser	021 818 1411	
		App 2 Team Lead Collaborator – Miguel da Silva	012 998 2614	0827892371

	Communications Team 1		
	Finance Team Lead CFO	022 433 8400	0825577684
	Finance Team 1 Manager CFO	022 433 8400	0836506273

Disaster Recovery Call Tree Process Flow
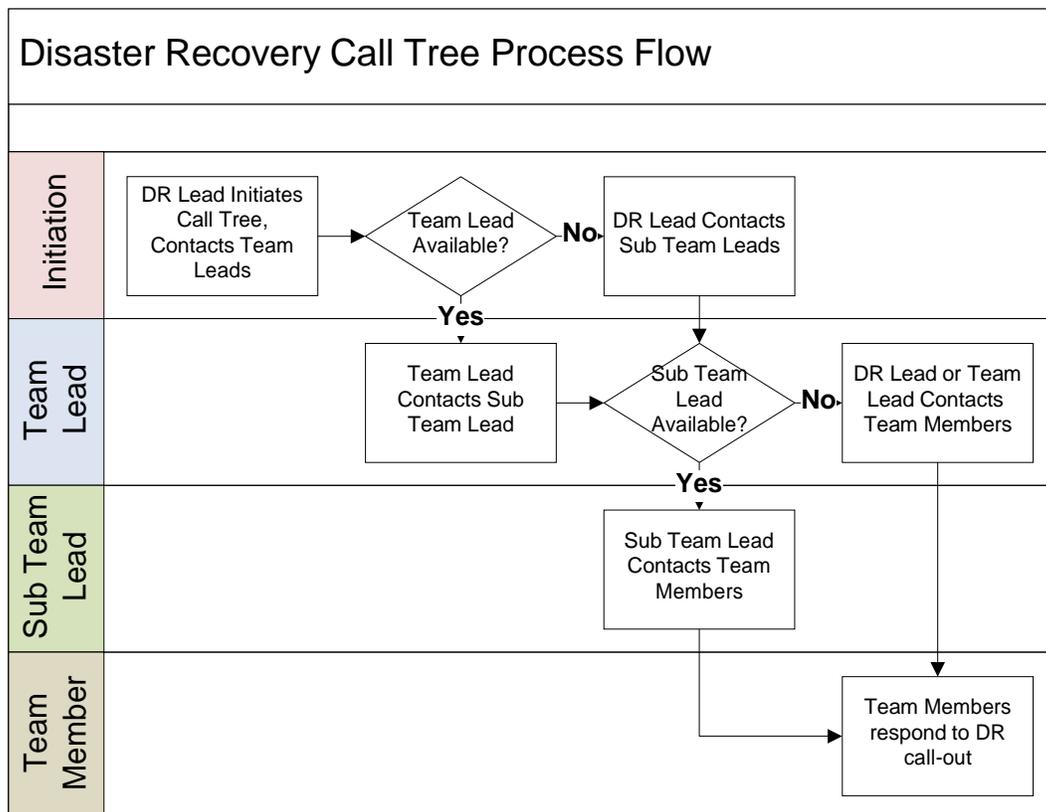
Recovery Facilities

In order to ensure that West Coast District Municipality is able to withstand a significant outage caused by a disaster, it has provisioned separate dedicated standby facilities. This section of this document describes those facilities and includes operational information should those facilities have to be used.

Description of Recovery Facilities

The Standby facility will be used after the Disaster Recovery Lead has declared that a disaster has occurred. This location is a separate location to the primary facility. The current facility, located at Withoogte Water Treatment Site is 15km away from the primary facility.

The standby facility will be used by the IT department and the Disaster Recovery teams; it will function as a central location where all decisions during the disaster will be made. It will also function as a communications hub for West Coast District Municipality.

The standby facility must always have the following resources available:

- Copies of this DRP document
- External data and voice connectivity
- Bathroom facilities
- Parking spaces for employee vehicles

Map of Standby Facility Location

33°04'05.40" S 18°40'06.81" E

Directions to Recovery Facility

Directions to the standby facility: Option 1 – From the West Coast District Municipality

- Follow Long Street in a Easterly direction to the traffic lights

- Turn left at the traffic lights an follow the Main road untill you get to the Railroad.

- Cross the railroad and follow Piketberg way untill you reach the N7

- Turn left onto the N7 and continue for approximately 10km.

- You will find the turnoff for Withoogte on your left hand side.

- Follow the road untill you reach the turnoff on your left for the office buildings

- Follow the road untill you reach a fork.

- Turn right into the fork and follow the road untill you get to the entrance

Data and Backups

This section explains where all of the organization's data resides as well as where it is backed up to. Use this information to locate and restore data in the event of a disaster.

Data in Order of Criticality

Rank	Data	Data Type	Back-up Frequency	Backup Location(s)
1	SAMRAS	Confidential	Daily	Safe, Bank safe and DRP site
2	CAPMAN	Confidential	In process	In process
3	Files on Fileserver	Public	In process	In process
4	Collaborator	Public	In process	In process
5	E-mails	Public	In process	In process
6				

Communicating During a Disaster

In the event of a disaster West Coast District Municipality will need to communicate with various parties to inform them of the effects on the business, surrounding areas and timelines. The Communications Team will be responsible for contacting all of West Coast District Municipality's stakeholders.

Communicating with the Authorities

The Communications Team's first priority will be to ensure that the appropriate authorities have been notified of the disaster, providing the following information:

- The location of the disaster

West Coast District Municipality

- The nature of the disaster
- The magnitude of the disaster
- The impact of the disaster
- Assistance required in overcoming the disaster
- Anticipated timelines

Authorities Contacts

Authorities	Point of Contact	Phone Number	E-mail
Disaster Management Centre	*Disaster Manager*	*022 433 8813*	*svisser@wcdm.co.za*
Fire Department	*Fire Chief*	*022 433 8702*	*bsenekal@wcdm.co.za*
Office of the Municipal Manager	*Public Relations Officer*	*022 433 8452*	*hjrobertson@wcdm.co.za*

Communicating with Employees

The Communications Team's second priority will be to ensure that the entire company has been notified of the disaster. The best and/or most practical means of contacting all of the employees will be used with preference on the following methods (in order):

- E-mail (via corporate e-mail where that system still functions)
- E-mail (via non-corporate or personal e-mail)
- Telephone to employee home phone number
- Telephone to employee mobile phone number

The employees will need to be informed of the following:

- Whether it is safe for them to come into the office
- Where they should go if they cannot come into the office
- Which services are still available to them
- Work expectations of them during the disaster

ICT Action Team

Name	Role/Title	Mobile Phone Number	Personal E-mail Address
Mr H Matthews	*Manager: IT*	0812880849	matthews.hendrik@gmail.com
Mr H Coetzer	*Network Administrator*	*0848708219*	hcoetzer30@gmail.com

Communicating with Clients

After all of the organization's employees have been informed of the disaster, the Communications Team will be responsible for informing clients of the disaster and the impact that it will have on the following:

- *Anticipated impact on service offerings*
- *Anticipated impact on delivery schedules*
- *Anticipated impact on security of client information*
- *Anticipated timelines*

Crucial clients will be made aware of the disaster situation first. Crucial clients will be E-mailed first then called after to ensure that the message has been delivered. All other clients will be contacted only after all crucial clients have been contacted.

Communicating with Vendors

After all of the organization's employees have been informed of the disaster, the Communications Team will be responsible for informing vendors of the disaster and the impact that it will have on the following:

- *Adjustments to service requirements*
- *Adjustments to delivery locations*
- *Adjustments to contact information*
- *Anticipated timelines*

Crucial vendors will be made aware of the disaster situation first. Crucial vendors will be E-mailed first then called after to ensure that the message has been delivered. All other vendors will be contacted only after all crucial vendors have been contacted.

Vendors encompass those organizations that provide everyday services to the enterprise, but also the hardware and software companies that supply the IT department. The Communications Team will act as a go-between between the DR Team leads and vendor contacts should additional IT infrastructure be required.

Crucial Vendors

Company Name	Point of Contact	Phone Number	E-mail
Bytes Technologies	Roland Looser	021 680 6870	*support@bytes.co.za*
Business Engineering	Miguel da Silva	012 998 2614	*miguels@be.co.za*

Dealing with a Disaster

If a disaster occurs in West Coast District Municipality, the first priority is to ensure that all employees are safe and accounted for. After this, steps must be taken to mitigate any further damage to the facility and to reduce the impact of the disaster to the organization.

Regardless of the category that the disaster falls into, dealing with a disaster can be broken down into the following steps:

1) Disaster identification and declaration
2) DRP activation
3) Communicating the disaster
4) Assessment of current and prevention of further damage
5) Standby facility activation
6) Establish IT operations
7) Repair and rebuilding of primary facility

Disaster Identification and Declaration

Since it is almost impossible to predict when and how a disaster might occur, West Coast District Municipality must be prepared to find out about disasters from a variety of possible avenues. These can include:

- First hand observation
- System Alarms and Network Monitors
- Environmental and Security Alarms in the Primary Facility
- Security staff
- Facilities staff
- End users
- 3rd Party Vendors
- Media reports

Once the Disaster Recovery Lead has determined that a disaster had occurred, s/he must officially declare that the company is in an official state of disaster. It is during this phase that the Disaster Recovery Lead must ensure that anyone that was in the primary facility at the time of the disaster has been accounted for and evacuated to safety according to the company's Evacuation Policy.

While employees are being brought to safety, the Disaster Recovery Lead will instruct the Communications Team to begin contacting the Authorities and all employees not at the impacted facility that a disaster has occurred.

DRP Activation

Once the Disaster Recovery Lead has formally declared that a disaster has occurred s/he will initiate the activation of the DRP by triggering the Disaster Recovery Call Tree. The following information will be provided in the calls that the Disaster Recovery Lead makes and should be passed during subsequent calls:

- That a disaster has occurred
- The nature of the disaster (if known)
- The initial estimation of the magnitude of the disaster (if known)
- The initial estimation of the impact of the disaster (if known)
- The initial estimation of the expected duration of the disaster (if known)
- Actions that have been taken to this point
- Actions that are to be taken prior to the meeting of Disaster Recovery Team Leads
- Scheduled meeting place for the meeting of Disaster Recovery Team Leads
- Scheduled meeting time for the meeting of Disaster Recovery Team Leads
- Any other pertinent information

If the Disaster Recovery Lead is unavailable to trigger the Disaster Recovery Call Tree, that responsibility shall fall to the Disaster Management Team Lead

Communicating the Disaster

Refer to the "Communicating During a Disaster" section of this document.

Assessment of Current and Prevention of Further Damage

Before any employees from West Coast District Municipality can enter the primary facility after a disaster, appropriate authorities must first ensure that the premises are safe to enter.

The first team that will be allowed to examine the primary facilities once it has been deemed safe to do so will be the Facilities Team. Once the Facilities Team has completed an examination of the building and submitted its report to the Disaster Recovery Lead, the Disaster Management, Networks-, Servers-, and Operations Teams will be allowed to examine the building. All teams will be required to create an initial report on the damage and provide this to the Disaster Recovery Lead within 3 hours of the initial disaster.

During each team's review of their relevant areas, they must assess any areas where further damage can be prevented and take the necessary means to protect West Coast District Municipality's assets. Any necessary repairs or preventative measures must be taken to protect the facilities; these costs must first be approved by the Disaster Recovery Team Lead.

Standby Facility Activation

The Standby Facility will be formally activated when the Disaster Recovery Lead determines that the nature of the disaster is such that the primary facility is no longer sufficiently functional or operational to sustain normal business operations.

Once this determination has been made, the Facilities Team will be commissioned to bring the Standby Facility to functional status after which the Disaster Recovery Lead will convene a meeting of the various Disaster Recovery Team Leads at the Standby Facility to assess next steps. These next steps will include:

1. Determination of impacted systems
2. Criticality ranking of impacted systems
3. Recovery measures required for high criticality systems
4. Assignment of responsibilities for high criticality systems
5. Schedule for recovery of high criticality systems
6. Recovery measures required for medium criticality systems
7. Assignment of responsibilities for medium criticality systems
8. Schedule for recovery of medium criticality systems
9. Recovery measures required for low criticality systems
10. Assignment of responsibilities for recovery of low criticality systems
11. Schedule for recovery of low criticality systems
12. Determination of facilities tasks outstanding/required at Standby Facility
13. Determination of operations tasks outstanding/required at Standby Facility
14. Determination of communications tasks outstanding/required at Standby Facility
15. Determination of facilities tasks outstanding/required at Primary Facility
16. Determination of other tasks outstanding/required at Primary Facility
17. Determination of further actions to be taken

During Standby Facility activation, the Facilities, Networks, Servers, Applications, and Operations teams will need to ensure that their responsibilities, as described in the "Disaster Recovery Teams and Responsibilities" section of this document are carried out quickly and efficiently so as not to negatively impact the other teams.

Restoring IT Functionality

Refer to the "Restoring IT Functionality" section of this document.

Restoring IT Functionality

Should a disaster actually occur and West Coast District Municipality need to exercise this plan, this section will be referred to frequently as it will contain all of the information that describes the manner in which West Coast District Municipality's information system will be recovered.

Critical Business IT Systems

Below table contain a list of Municipal Critical Business functions that are dependent on ICT Services. The MTO is the amount of time the identified critical business function may be unavailable before the Municipality is severely impacted. The RPO is the worst data loss that the Municipality is willing to accept. In other words, this is the point from which recovery of lost data must take place. The MTO and RPO are based on a 24 hour / 7 day week allowed for recovery

Critical business functions	Performed by	Frequency	Systems used	MTO	RPO (hrs)	Onsite users
Communication to Council and staff	Corporate Services	Daily	Email	1 week	None	140
Manage Switchboard	Corporate Services	Daily	PABX System	1 day	None	1
Manage Filing	Corporate Services	Daily	Collaborator	1 day	None	2
HR Administration	Human Resources	Daily	SAMRAS	1 week	None	5
Records Management	Corporate Services	Daily	Collaborator	1 week	None	2
Ensure Connectivity is functioning Optimally	Financial Services – Information Technology	Daily	Manual Process / Network Management	1 day	N/A	2
Ensure Security of Municipal Systems and information	Financial Services – Information Technology	Daily	ESET Endpoint Firewall	1 day	24	140
Ensure effective backups of data and Critical systems	Financial Services – Information Technology	Daily	Linux Scripts Veeam Backups	1 day	24	3
Manage indigent consumers.	Finance - Revenue	Daily	SAMRAS	10 days	None	1
Manage payments.	Finance - Expenditure	Daily	SAMRAS	5 days	None	4
Manage the pay office.	Finance – Pay Office	Daily	SAMRAS	1 day	None	2
Procure goods and services.	Finance – Supply Chain	Daily	SAMRAS	3 days	None	6
Manage the bid office.	Finance – Supply Chain	Daily	Manual process	3 days	None	6
Manage internal control.	Finance – Internal Control	Daily	SAMRAS	5 days	None	3

Critical business functions	Performed by	Frequency	Systems used	MTO	RPO (hrs)	Onsite users
Prepare annual financial statements.	Finance – AFS	*Daily*	*SAMRAS*	*5 days*	*None*	*2*
Manage and oversee budget office.	Finance – Budget Office	*Daily*	*SAMRAS*	*3 days*	*None*	*2*

a) Procedure

The following are the steps associated with bringing Critical Servers back online in the event of a disaster or system failure.

Step	Action	Responsibility
1	The IP address of the DR server needs to be changed in case of a natural disaster.	Heinrich Coetzer
2	In case of a Software / System failure	Bytes Technologies

Plan Testing & Maintenance

While efforts will be made initially to construct this DRP is as complete and accurate a manner as possible, it is essentially impossible to address all possible problems at any one time. Additionally, over time the Disaster Recovery needs of the enterprise will change. As a result of these two factors this plan will need to be tested on a periodic basis to discover errors and omissions and will need to be maintained to address them.

Maintenance

The DRP will be updated Monthly or any time a major system update or upgrade is performed, whichever is more often. The Disaster Recovery Lead will be responsible for updating the entire document, and so is permitted to request information and updates from other employees and departments within the organization in order to complete this task.

Maintenance of the plan will include (but is not limited to) the following:

1. Ensuring that call trees are up to date
2. Ensuring that all team lists are up to date
3. Reviewing the plan to ensure that all of the instructions are still relevant to the organization
4. Making any major changes and revisions in the plan to reflect organizational shifts, changes and goals
5. Ensuring that the plan meets any requirements specified in new laws

6. Other organizational specific maintenance goals

During the Maintenance periods, any changes to the Disaster Recovery Teams must be accounted for. If any member of a Disaster Recovery Team no longer works with the company, it is the responsibility of the Disaster Recovery Lead to appoint a new team member.

Testing

West Coast District Municipality is committed to ensuring that this DRP is functional. The DRP should be tested 6 monthly in order to ensure that it is still effective. Testing the plan will be carried out as follows:

1) **Walkthroughs**- Team members verbally go through the specific steps as documented in the plan to confirm effectiveness, identify gaps, bottlenecks or other weaknesses. This test provides the opportunity to review a plan with a larger subset of people, allowing the DRP project manager to draw upon a correspondingly increased pool of knowledge and experiences. Staff should be familiar with procedures, equipment, and offsite facilities (if required).

2) **Parallel Testing**- A parallel test can be performed in conjunction with the checklist test or simulation test. Under this scenario, historical transactions, such as the prior business day's transactions are processed against preceding day's backup files at the contingency processing site or hot site. All reports produced at the alternate site for the current business date should agree with those reports produced at the alternate processing site.

Any gaps in the DRP that are discovered during the testing phase will be addressed by the Disaster Recovery Lead as well as any resources that he/she will require.