

All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province
Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za
www.mbhashemun.gov.za

# INFRASTRUCTURE MAINTENANCE POLICY MBHASHE LOCAL MUNICIPALITY

2018-2019



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

# **TABLE OF CONTENT**

- 1. BACKGROUND
  - 1.1 Locality
  - 1.2 Legislation
  - 1.3 Infrastructure Maintenance Activities
- 2. POLICY OBJECTIVE
- 3. CHALLENGES AND REMIDIAL SOLUTIONS REGARDING INFRASTRUCTURE MAINTENANCE
- 4. MAINTENANCE STRATEGY & METHODOLOGY
- 5. MAINTENANCE PROCESS MANAGEMENT
  - 5.1 Accountability for Operation & Maintenance
  - 5.2 Operational Description
  - 5.3 Reporting on emerging issues & impairment occurrence
  - 5.4 Right of entry
- 6. DEVIATION PROCESS ON MAINTENANCE PLAN
- 7. INFORMATION
- 8. RECOMMENDATIONS



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

### 1. BACKGROUND

# 1.1 Locality

Mbhashe Local Municipality is one of the Local Municipalities under Amathole District Municipality Eastern Cape Province. There are 3 towns, viz., Willowvale, Dutywa and Elliotdale. The whole municipality is divided into 32 wards.

# 1.2 Legislation

- MFMA Asset Management Section 63(1)(a)
- National Roads Act 1996
- National Road Traffic Act 1996

### 1.3 Infrastructure Maintenance Activities

Infrastructure Maintenance include the following activities:

- Roads and Storm-water
- Street lights and High Masts
- Public amenities and Community Facilities

# Roads and Storm-water -

Mbhashe Local Municipality has a huge backlog in terms of maintaining roads and storm-water infrastructure. There are limited funds made available by the municipality to maintain its roads and storm-water infrastructure through equitable share. Each Unit is having a full functioning team with set of machinery to conduct construction of roads and Routine Roads Maintenance works.

The municipality currently operates on road maintenance policy adopted by Council to control the roads maintenance activities for identified areas to be maintained by plant. Roads Maintenance Policy does not include all Infrastructure items and therefore roads maintenance will form part Infrastructure Maintenance Policy with approved Road Maintenance Plan. Road maintenance plan is developed mitigate manipulation/mismanagement of plant and also to improve production of plant. Roads maintenance plan has a potential to expedite and maximize production should it be implemented correctly and be approved by council in time (July-beginning of Financial Year). Period to implement road maintenance is not according to climate in the municipal jurisdiction and also is not always favourable to properly effect maintenance as intended by the plans.

Road infrastructure has not been maintained efficiently as they should due to high huge backlogs and also by the fact that the assessment of roads is not based on their traffic



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

volume, road capacity, terrain, road category, climate, construction methods, contractors capacity, material used, design method, storm water management etc.

This policy will guides usage of plant to avoid exposure to the manipulation which leads to deviation from planned activities. Most of existing municipal road network is not maintained effectively until they reach a state of reconstruction/rehabilitation which is extremely expensive for the municipality. Special requests are sent through the office of infrastructure and assessments are done adhoc to verify impact that is due to the reported incident. Adhoc assessment reports are prepared by the department for approval by Municipal Manager to consider in to implementation of the project. When the identification of the road is done it is then implemented through usage of maintenance budget for infrastructure.

### Street lights

Mbhashe Municipality is responsible for community street lighting to ensure safety to communities. Some of the existing infrastructure for street lights in towns is owned by Eskom. The Municipality only installed street lights on existing Eskom infrastructure. Municipality is in process to separate street lights from Eskom infrastructure. Municipality is maintaining the existing street lights and install additional where necessary. There are number of high mast in different areas within the municipal communities.

Electricity Subsection is under Infrastructure Maintenance Section and is to ensure the safety and security of the Mbhashe community. It is necessary to ensure that all street lights and high masts are adequate at all times. The scope of works is continuous and repetitive work in months and quarters. Daily/weekly maintenance checkup is conducted to repair, fix faults and replace bulbs or re-install new poles when needed, as well as monitoring the main switches during sunset.

# **Public amenities and Community Facilities**

Mbhashe Municipality has a competence to construct and maintain public amenities and community facilities like halls, pounds, cemeteries, sports fields, ablution facilities, beaches, child care facilities, parks & public places. The Community Facility Management Policy has been developed adopted. Such a plan is meant to serve as a guide on the management and maintenance of these facilities.

The municipality has identified the necessity to develop the policy for ensuring infrastructure is maintained and restore its status until life span of the infrastructure is maintained. Due to unavailability of infrastructure maintenance policy there is no guidance hence there is a desire and a need to develop this policy.



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

# 2. POLICY OBJECTIVES

- Primary objective of this policy is to ensure infrastructure within municipality is restored to its construction status and roads are accessible and trafficable at all times. The policy also intends to maximize use of internal/municipal machines and increase capacity.
- Secondary to achieve the primary objectives and their utilization as a source of maintenance policy the following objectives are targeted as secondary objectives of this policy.
- The objectives are defined as follows:-
- a) Provide accessible roads that are trafficable in all seasons.
- b) Properly maintain municipal infrastructure with guidance and Council approval.
- c) Ensure that projects are on maintenance plan immediately after handover for usage by community.
- d) Effect infrastructure maintenance and new roads infrastructure. Asset Register to give indication of prioritization of assets to be maintained to be escalated to maintenance plan
- e) Improve/prolong life span of newly built infrastructure.
- f) Improve capacity of municipal plant and its production.
- g) Provide direction and management of internal plant.
- h) Clear lines of communications towards management of municipal plant.
- i) Inform municipal council about processes to follow for implementing maintenance plan.
- k) Reduce community requests provided for municipality to intervene on activities that relates to community operations that fall outside of maintenance plan.
- l) Improve use of municipal maintenance plan as a wheel to implement maintenance of infrastructure.
- m) Design methods to implement and effect maintenance as per climate conditions of the municipal area.
- n) Provide proposal for deviation process on maintenance plan.
- o) Provide clear guidelines on the frequency on maintenance inspections

# 3. CHALLENGES AND REMIDIAL SOLUTIONS REGARDING INFRASTRUCTURE MAINTENANCE

The municipality experiences challenges regarding infrastructure maintenance and amongst identified challenges the following have been identified as core challenges regarding infrastructure maintenance. Challenges in bullet point format are provided as follows:-

- a) Poor or no maintenance on newly built infrastructure, leading to projects to undergo process of capital projects than maintenance.
- b) No operation and maintenance manual to guide projects that need immediate attention.
- c) No implementation of available material and type thereof to analyse life span of the newly built infrastructure based on material



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

- d) Inadequate budget to immediately maintain newly built infrastructure, this leads to municipality to opt for areas not served than focusing on maintenance.
- e) Mountainous and Rolling terrain within municipality for newly built infrastructure which affects life span of municipal infrastructure.
- f) Implementation of projects on rainy seasons due to IDP processes being practical to implement the project during rainy season.
- g) Non availability of economic analysis for movement of plant due to many special request.
- h) Lack of proper controls for use internal plant.
- i) Impact of plant output being negative due to its implementation being on different areas which cannot be converted to be the project.
- j) Poor implementation of roads maintenance plan by infrastructure roads maintenance department.
- k) Processes to follow to procure critical material when a plant is broken which at times lead to the team being ineffective due to delays to order certain material.
- l) Pressure to deviate on planned activities, this affects the output and other operation as the team is affected on its operations.
- m) Historically backlog leading to focus on new construction. Internal plant to be assessed through asset management on their status and recommendations to be developed to advice council

# **Proposed Remedies and Solutions**

To mitigate and reduce the challenges faced by the municipality the municipality has to engage and evaluate options as they are outlined below. Solutions proposed are to ensure smooth and effect proper operations to implement maintenance. Below are the proposed solutions to remedy and reduce effect of challenges identified.

- a) Approve and identify projects for maintenance plan during budget and IDP processes.
- b) Implement maintenance during less rainy seasons which results in planning being during rainy seasons
- c) Register projects for maintenance immediately when handed over for public use for cost management.
- d) Geotechnical investigation for wards for understanding performance of material and their life span under weather and traffic volume.
- e) Intervention requests are to be submitted by ward councillors to portfolio head infrastructure services and information be provided to ward councillors on whether assistance required will be provided or not.
- f) Process for deviation shall be approved by Portfolio Head as proposed and indicated in this policy proposal.
- g) All instructions for plant areas of operations shall be provided by municipal management to reduce confusion on operators.
- h) Deviations from maintenance plan must be reported to municipal council. Prioritization of projects in the maintenance plan and properly done. Time frame between acquiring and disposal of plant before it starts to be uneconomical and fruitless in terms of expenditure.
- i) Maintenance plan be used as a planning document and implementing tool for infrastructure maintenance.



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

- j) Municipality to develop or produce co-operations for management of minor mechanical delays such as tyre burst, wheel screws, broken cars etc.
- k) Provide petty cash for immediate attendance to minor mechanical failures.
- I) Prioritize transport for service delivery operations for efficient use of internal plant.

# 4. MAINTENANCE STRATEGY & METHODOLOGY

Mbhashe Municipality must apply a methodology to ensure that there is systematic and effective delivery of its operation & maintenance activities of municipal assets that will reduce the performance of ad-hoc maintenance activities towards creating a conducive environment to ensure that through:

- a) Developing and reviewing maintenance plans of all municipal infrastructure assets as indicated in the policy background.
- b) Different road maintenance types will be implemented within reasonable time as planned except in cases that will be declared as emergency by the council and management being advised by the technical team.
- c) Establishment of essential services system detailing responsible municipal staff
- d) Different maintenance inspections are performed at the required frequency.
- e) Alternative technologies to enhance and improve the O & M activities to be used and be applied on approval by management.
- f) The performance and state of the storm water drainage system will be assessed, maintained and if required proposals to upgrade the system will be compiled in order to reduce and to some extent eliminate the risk of roads being flooded.
- g) A fleet of construction equipment will be availed for the purpose of fast-tracking and reducing the maintenance backlog of municipal roads or in the interim embarks on outsourcing critical areas for immediate response.

### 5. MAINTENANCE PROCESS MANAGEMENT

# 5.1 Accountability for Operation & Maintenance

Project Management Unit (PMU) is responsible for new infrastructure developments either; roads and storm-water, street lights, high masts, public amenities and community facilities. When the final completion certificate is issued then the responsible department must take over the maintenance of asset as per the designs.

Accountability for the infrastructure assets is delegated from the municipal manager, through the senior managers, to the responsible officers and SCM manager for assets. The responsibility is further extended and delegated in terms of the custodianship to the responsible head managing the Infrastructure Services and Community Services.

Senior Manager Infrastructure Services and Community Services are accountable for ensuring that municipal resources assigned to them are utilized effectively, efficiently, economically and transparently in consultation with the Supply Chain Manager. This would include:

- complying with systems of management and internal controls established by the municipality,
- preventing inappropriate and waste-full expenditures,



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

- appropriately managing, safeguarding and maintaining assigned assets and.
- Providing all asset-related information as and when required i.e. in a case where a
  road has been re-gravelled resulting to the enhancement of its performance, lifespan
  improvement and its current replacement costs.

All assets remain under the ownership of the Finance Directorate (SCM/Assets). The delegated user will be required to continuously report to the Finance Directorate and further and provide required data that support all expenditures incurred and associated upgrading descriptions to ensure efficient update of the Infrastructure Asset Register.

The Manager Infrastructure Maintenance will take full responsibility towards the management of inspections and maintenance of the components that make up the roads network and drainage system, plant maintenance, streetlight and highmast of Mbhashe municipality. This process also includes the removal of man-made obstructions that prohibits smooth flow of storm-water runoff to prevent flooding. The Manager for Community Services will take full responsibility of public amenities and community facilities.

# 5.2 Operational Description

### 5.2.1 Inspections

All ward councillor submit roads maintenance list to Infrastructure Services Directorate and are all recorded in the Road Maintenance Plan and to be listed according to ward priorities. Infrastructure Maintenance Manager will delegate road foreman in each unit to perform inspection and processes that will also take into account or accommodate unscheduled inspections in response to the community's complaints. Through the performance of scheduled inspections, the identified defects with key maintenance items shall be properly documented and prioritized as per the Road Maintenance Plan list.

During inspection road foreman communicate with ward councillor or delegated ward committee by ward councillor to ensure that road inspection is done in the correct route. Site minutes resolution will be recorded between ward councillor and foreman to confirm the inspection. This is to ensure sense of ownership by ward councillor. Also to set up targets to be achieved by the plant for a particular fixed period/ time

All community complaints will be communicated through Infrastructure Services Portfolio Head. On receipt of the complaint, Infrastructure will record the complaint(s) or report(s) and send the replies and send to registry or on any traceable system. Responsible or duly delegated personnel will be assigned to conduct visual inspections for Roads & Storm-water or for Community Facility Maintenance to determine the extent of damage or defect within 7 working days. The findings or maintenance requirements will be reported to the Infrastructure Services Portfolio Head for prioritization.

### 5.2.2 Maintenance Requirements

The timing of maintenance is vital as it affects the deterioration of an asset to a very poor condition which may result to the cost of repairs being doubled or four times its current cost price if the defects have not been attended at the required interval. The Directorate responsible for Operation & Maintenance is therefore required to develop Maintenance



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

Plans that identifies different maintenance types applicable with reference to the maintenance types listed below and determine relevant timelines to ensure that the asset is operated at its optimal level and maintained to a level that ensures fully functioning of the asset.

a) Routine Roads maintenance – refers to the day to day operational activities to keep the asset or infrastructure in a smooth and operational manner in case of road infrastructure the following table implies and also incise of roads machine break down it must be quickly reported by foremen to the mechanical technician so as to provide rapid response and assistance.

Routine maintenance of surfaced roads	Routine maintenance of gravel access roads	Stormwater drainage maintenance	Roadside/ reserve maintenance	Maintenance of traffic signs and roadside furniture
Pothole repair	Wet grading	Culvert cleaning	Shoulder repairs and edge build-up	Road traffic markings - lines and lettering
Slack and depression repair	Dry grading	Side drain grading	General erosion protection	Road sign installation - repair and cleaning
Base and surface repair	Reshaping (Rip and compaction)	Open drain cleaning	Erosion control – stone pitching	Traffic calming devices - installation and repair
Edge repair	Patch gravelling	Culvert installation	Erosion control – gabions	
Gravel shoulder repair		Culvert cleaning	Shoulder repairs and edge build- up	
Pothole repair		Side drain grading	General erosion protection	

- b) **Special maintenance** is mostly applicable when a portion of the municipal infrastructure or asset requires reconstruction or refurbishment for example the road structure or surface will require total reconstruction even though it may still be within or not even close to 50% of its remaining useful life. This usually occurs due to failure of underlying layers caused by underground water rising resulting to surface layer pumping.
- c) Reconstruction/rehabilitation maintenance reconstruction involves removing the entire portion of the roadway and replacing it with new layers. This maintenance activity usually occurs when the condition of the roadway or street reaches a point where preventive maintenance is no longer cost-effective. Pro-active identification and application of the correct maintenance type will prevent failure of the asset during or within its life cycle to minimize or eliminate corrective maintenance.



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

- d) In case of buildings infrastructure applies
- to repair of refurbishment of community halls or multi-purposes halls
- e) In case of Plant & equipment applies
- to service and repairs of mechanical shafts & joints.
- Water level and tyre press checks etc.
- In case of misconduct and misuse by machine operators, report must be submitted by road foreman and or mechanical technician to Infrastructure Maintenance Manager and Infrastructure Services Senior Manager to follow disciplinary process.

These type of maintenance must form part of the annual operating budget. The core purpose of the above maintenance type is to extend or prolong the lifespan of the asset under maintenance and must form part of the annual operating budget & further into the Medium Term Expenditure Framework of the Municipality. The department concern must ensure that the expenditure must balance with work performed and work done to be used as a measuring tool to monitor performance.

# 5.3 Reporting on emerging issues & impairment occurrence

Senior Managers (Infrastructure and Community) Services will report shortfalls in the performance of any municipal infrastructure under its maintenance function to the management and standing committee for the attention of the municipal manager and council on the execution of the delegated responsibilities, including any issues that will significantly impede the capability of the assets to provide the required level of service or economic benefit. One of these issues will be the adequacy of the maintenance, operation and safeguarding of assigned assets.

# 5.4 Right of entry

Infrastructure Maintenance Department has the:

- Right of entry on any property within Mbhashe municipality's jurisdictional area to perform safety inspections to identify potential sources that may cause or contribute to the flooding or damage of the road structure.
- Right to question and take steps to prevent illegal activities by citizens that may lead
  to storm-water control and management being jeopardized and as a result causing
  flooding to municipal and private owned properties.



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

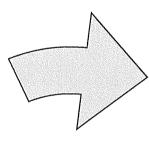
# 6. DEVIATION PROCESS ON MAINTENANCE PLAN

This is the deviation process to be used by municipal council to deviate from planned maintenance plan. This process outlines the route to be followed to provide required plant within various wards. The process is to channel and clear communication lines for instructing plant to various wards as per requests.

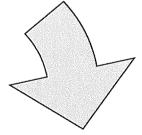
No more deviations will be allowed for roads maintenance programme except on cases of disaster and intervention on developmental projects.

Ward Councillor submits request to Portfolio Head Infrastructure/ Department

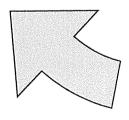
Portfolio Head and Ward Councillor Engage on the Report



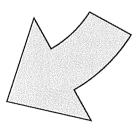
Portfolio Head Engages with Senior Manager Infrastructure



Departmental Assessment



Department Reports on Plant availability





All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

The diagram shows processes to follow to deviate from the planned activities. The diagram above is further discussed below for the processes to follow to ensure the deviation process is mitigated. Any request leading to deviation shall be regarded as emergence for it to move plant from its operations.

### Stage 1

Portfolio Head of department sends the request to infrastructure department through portfolio head. This is done by Ward councillor after engaging with his/her constituency on infrastructure needs of the ward. Request shall be signed and have municipal stamp as an indication of request being from ward councillor as municipal representative on the ward.

\*NB: Request only to be submitted by Ward councillor to Portfolio Head and not to officials. If request is from other departments Portfolio Head submits request to Portfolio Head Infrastructure

# Stage 2

Portfolio Head engages with departmental management to assess status of plant and impact of plant removal from one point to another. Impact is assessed by both portfolio head and senior manager infrastructure and way forward is proposed.

\*NB: Portfolio Head only engages/plan with departmental management not with staff below technicians managing maintenance unit. No instruction to officials by Portfolio head at any time.

# Stage 3

Infrastructure department assesses the reported request in the availability of ward councillor or ward committees. Any other person referred to can only be consulted with the instruction of ward councillor for that assessment.

\*NB: Assessment to be done within 5 working days of request, realistic need for assessment is done prior sending technicians/foreman to site for assessment.

# Stage 4

Infrastructure department prepares the report on the request done and provide report to Portfolio head. Report is then provided to Portfolio head and Portfolio head engages departmental management on report provided.

\*NB: Report provided to Ward councillor by Portfolio Head not officials. Follow up on progress reports by Ward Councillors be done to Portfolio head and not to officials.

### Stage 5

Ward Councillor and Portfolio head engage with the report provided by Infrastructure department. The engagement will also indicate plant availability proposed for use on request, plant availability, impact of plant removal, dates to avail plant to various wards as per request.

\*NB: Report provided to Ward councillor by Portfolio Head not officials. Follow up on progress reports by Ward Councillors be done to Portfolio head and not to officials. If request is from internal department therefore report is provided to Portfolio head concern.



All correspondence to be directed to the office of the Municipal Manager 454 Streatfield Street, Dutywa, Eastern Cape Province Tel: 047 489 5864/34 • Email: info@mbhashemun.gov.za www.mbhashemun.gov.za

# 7. INFORMATION

This policy refers to Infrastructure Maintenance Policy working in conjunction with Roads Maintenance Plan and Community Facility Management Policy. This Policy may be reviewed on annually basis.

# 8. RECOMMENDATIONS

It is then recommended that this policy is adopted by the Municipal Council to act as a guide and framework for infrastructure maintenance and plant management.

APPROVED BY THE COUNCIL AND SIGNED BY:

MR NAKO M

**MUNICIPAL MANAGER** 

02 July 2018

EXECUTIVE MAY