

THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY – ADOPTED  
23 JUNE 2016



**THEMBELIHLE**

LOCAL MUNICIPALITY  
PLAASLIKE MUNISIPALITEIT  
U-MASIPALA WASEKUHLENI

# **WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY**

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**CONTENTS**

1.	BACKGROUND .....	3
2.	DEFINITIONS .....	3
3.	LEGISLATIVE CONTEXT .....	4
4.	LONG-TERM POLICY OBJECTIVES .....	6
5.	LIMITATIONS .....	7
6.	POLICY PRINCIPLES .....	7
7.	SITUATIONAL EVALUATION .....	8
8.	WATER MANAGEMENT/AUDIT .....	8
9.	WATER RESTRICTIONS AND CONSERVATION .....	8
10.	WATER DEMAND MANAGEMENT .....	11
11.	PLANNING .....	12
12.	USE OF TREATED WASTEWATER FOR INDUSTRIAL USE .....	14
13.	WATER RESTRICTIONS .....	14
14.	IMPLEMENTATION AND MONITORING .....	14
15.	COMMUNICATION .....	14
16.	POLICY REVIEW .....	14

**THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –  
ADOPTED 23 JUNE 2016**

## **1. BACKGROUND**

Three Acts govern the development of a water demand management policy. These are the Water Services Act (Act 108 of 1997), the Municipal Systems Act (Act 32 of 2000) and the National Water Act, 1998 (Act No. 36 of 1998).

The Water Services Act (Act 108 of 1997) requires a Water Services Authority to develop and implement a policy which complies with the Act. The Act provides the guidelines for the setting of such a Policy. This Water Conservation and Water Demand Management Policy has been developed to comply with the Act.

The Municipal Systems Act governs the basic provision of services and affordability, while the National Water Act concerns the environmental, catchment and riverine aspects.

The policy reflects the particular priorities established for Thembelihle and takes into account the local conditions within which water services are delivered. The policy deals with both bulk and distribution aspects of water supply services.

Policy principles and objectives are set out in terms of the Legal and Regulatory contexts pertaining to the efficient use of water.

The vision of all water conservation and demand management endeavours should be the efficient and effective use of water by all and the minimisation of loss or wastage of water. Conservation is the efficient use and saving of water achieved through measures such as water saving devices, water-efficient processes, water demand management and water rationing.

Water demand management is a strategy to influence the water demand and usage of water in order to meet objectives like economic efficiency, environmental protection, sustainability of water supply and services and should be an integral part of the planning processes for management, water supply and the provisions of water services

The responsibility of the Municipality is to ensure the availability of water and it must do everything in its power to ensure a constant supply of water for use in the area under its jurisdiction and to create a water conservation and demand management culture between the service provider and users.

Therefore, this Policy determines a set of rules for the effective and efficient measures for water conservation and demand management.

## **2. DEFINITIONS**

**Basic water supply** - The prescribed minimum standard of water supply services necessary for the reliable supply of a sufficient quantity and quality of water to households, including informal households, to support life and personal hygiene.

**Consumer** - Any end user who receives water services from a water services institution, including an end user in an informal settlement.

**Development plan** - A water services development plan required in terms of the Water Services Act.

**THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –  
ADOPTED 23 JUNE 2016**

**Domestic water use** - Water use that is used predominantly for domestic purposes, including garden irrigation.

**Industrial use** - The use of water for mining, manufacturing, generating electricity, land-based transport, construction or any related purpose.

**Other water use** - All water use not defined as domestic, industrial and commercial water use.

**Person** - Includes a water services institution.

**Water services authority** - Any municipality, including a rural or district council responsible for ensuring access to water services.

**Water supply services** - The abstraction, conveyance, treatment and distribution of potable water, water intended to be converted to potable water or water for commercial use but not water for industrial use.

### **3. LEGISLATIVE CONTEXT**

Although a number of Acts of Parliament refer to aspects concerning the supply of water to all consumers, it is essentially the Water Services Act, Act 108 of 1997, (the Act) which provides the foundation for serious water conservation interventions.

The key elements of those sections impacting on water conservation are:

- Conditions for provision of water services;
- Industrial use of water;
- Norms and standards for tariffs;
- Duty to provide access to water services;
- Contents of draft water services development plan;
- By-laws;
- Procedure for making regulations;
- General powers of Minister;
- Delegation of powers; and
- Offences.

The above Sections of the Water Services Act provide the mandate for water conservation and water demand management.

The most relevant clauses of the above Act impacting on water conservation are extracted, in chronological order:

**Clause 4      Conditions for provision of water services -**

- (1)      Water services must be provided in terms of conditions set by the Water services provider.
- (2)      These conditions must-
- (b)      accord with conditions for the provision of water services contained in bylaws made by the water services authority
- (c)      provide for -

**THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –  
ADOPTED 23 JUNE 2016**

- (iv) the circumstances under which water services may be limited or discontinued;
- (v) procedures for limiting or discontinuing water services; and
- (vi) measures to promote water conservation and demand management

**Clause 7 Industrial use of water -**

- (4) No approval given by a water services authority under this section relieves anyone from complying with any other law relating to-
  - (a) the use and conservation of water and water resources;

**Clause 10 Norms and standards for tariffs –**

- (1) The Minister may, with the concurrence of the Minister of Finance, from time to time prescribe norms and standards in respect of tariffs for water services.
- (2) These norms and standards may-
  - (d) provide for tariffs to be used to promote or achieve water conservation.

**Clause 11 Duty to provide access to water services -**

- (1) Every water services authority has a duty to all consumers or potential consumers in its area of jurisdiction to progressively ensure efficient, affordable, economical and sustainable access to water services.
- (2) This duty is subject to-
  - (e) the duty to conserve water resources;
  - (g) the right of the relevant water authority to limit or discontinue the provision of water services if there is a failure to comply with reasonable conditions set for the provision of such services.

**Clause 12 Contents of draft water services development plan –**

Every draft water services development plan must contain details-

- (f) of existing and proposed water conservation, recycling and environmental protection measures.

**Clause 21 Bylaws -**

- (1) Every water services authority must make bylaws which contain

**THEMBELIHLE LOCAL MUNICIPALITY**  
**WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –**  
**ADOPTED 23 JUNE 2016**

conditions for the provision of water services, and which must provide for at least-

- (g) the prevention of unlawful connections to water services works and the unlawful or wasteful use of water.
- (2) The Minister may provide model bylaws to be used as a guide for water services authorities.

**Clause 71 Procedure for making regulations -**

- (1) The Minister must, before making regulations under this Act-
- (d) on request, report on the extent to which a specific comment or comments have been taken into account, or, if a comment was not taken into account, provide reasons therefore.

**Clause 72 General powers of Minister -**

- (1) The minister may-
- (d) prescribe measures to be taken by water services institutions to conserve water;

**Clause 73 Delegation of powers -**

- (1) Subject to subsection (2), the Minister may in writing delegate any power vested in him or her by or under this Act.
- (2) The Minister may not delegate the power-
  - (a) to make regulations;
  - (e) to prescribe policy;

**Clause 82 Offences -**

- (1) No person may-
  - (a) continue the wasteful use of water after having been called upon to stop by the Minister, a Province or any water services authority;

**Clause 83 State bound by Act –**

This Act binds the State and its organs.

**4. LONG-TERM POLICY OBJECTIVES**

It is crucial that the municipality uses draft a progressive new Water Demand Management Policy that will reflect the scarcity and precious nature of water in the region.

It is presumed that such a new policy will exceed the goals of the earlier policy.

**THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –  
ADOPTED 23 JUNE 2016**

The above considerations are important to address the long-term goals for the provision of potable water to Cape Town and to ensure the fundamental objectives below:

- Equity - Universal access to quality water supplies, with a guaranteed minimum level of service, through a metered connection.
- Sustainability - To ensure an acceptable level of assured water supply for future generations.
- Affordability - To ensure that water services remain affordable.
- Encourage, educate, promote and where appropriate legislate the optimal use of water.
- Maximise the use of alternative sources such as wastewater effluent, grey-water, rain water tanks, well-points and boreholes, etc.
- Minimise the loss of water.
- Ensure wise use of water by the municipality.

## **5. LIMITATIONS**

In view of the context outlined above, this water conservation and demand management policy has a number of limitations:

- Absence of an Integrated Development Plan. This water conservation and demand management policy would form part of the Integrated Water Development Plan in terms of the Water Services Act. This in turn forms part of the municipality's Integrated Development Plans and therefore needs to form a building block and integral part of the broader policy plans for municipality.
- Absence of a services delivery strategy. The absence of an overall framework for service delivery in an integrated manner within the municipality limits present draft policy.
- While these limitations may influence the development of the policy, it is considered imperative that this process be commenced as a matter of urgency, given the looming risk of significant water shortages in this region.

## **6. POLICY PRINCIPLES**

The following broad principles will inform the development of this policy and future implementation plans:

- Water is a strategic, precious and scarce resource.
- The waste of water shall not be tolerated.
- All consumptive water use shall be measured and accounted for.

The municipality may impose measures to limit, discontinue or restrict the use of water for water conservation purposes, drought and other reasons.

**THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –  
ADOPTED 23 JUNE 2016**

## **7. SITUATIONAL EVALUATION**

The Head of Department responsible for services in consultation with the Municipal Manager must establish a mechanism to monitor and continuously report on the status of the water demand.

The Head of Department must ensure that there is an efficient information system to:

- a) Record and provide data for water management;
- b) The quality and quantity of water in the various water resources;
- c) The use of water resources;
- d) Register of water user authorisations;
- e) Water works which might fail or has failed;
- f) Record information about a drought which has occurred or which seems imminent;
- g) Identification and monitoring of and usage by bulk water and high water consumers;
- h) Record and provide data for the development, enhancing or monitoring of this Policy; and
- i) Any matter connected with water, water infrastructure, water resources and demand management that may serve as an early warning system to real or potential hazards effecting service delivery, water conservation and demand management.

## **8. WATER MANAGEMENT/AUDIT**

For effective water demand management, the Municipality may require that:

- a) Bulk water users (those using more than 2 400 kl/annum (Calculated at 200kl/month), including those comprising multiple dwelling units, to undertake a monthly and annual water audit. The final annual audit must be carried out no later than two weeks after the end of each financial year of the Municipality. The audit report must be submitted to the Head of Department responsible for municipal services.
- b) The audit must detail the following
  - i. Amount of water used during a financial year;
  - ii. Amount paid for water for the financial year;
  - iii. Comparison of the above factors with those reported in each of the previous two years (where available);
  - iv. Estimate of consumption by various components in use at the various seasons (in season, peak season, peak week);
  - v. Differentiation between the different types of users (domestic, business, industry, farming) and their consumption;
  - vi. Annual consumption by the fire department and
  - vii. Number of occupants/people living on the premises including the workers (permanent staff).

## **9. WATER RESTRICTIONS AND CONSERVATION**



**THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –  
ADOPTED 23 JUNE 2016**

1. The Municipality may prohibit, restrict or limit the provisions of water supply services or consumption of water.
2. The following water restrictions, or additional or other measures, shall be applied, having regard to the state of dams which are the main water suppliers for Thembelihle Local Municipality.
3. Where own water other than municipal water, from a borehole or reservoir or grey water is used, the appropriate notice must be displayed on the premises, e.g. “OWN WATER/BOREHOLE WATER”.
4. Stages of the drought:
  - 4.1 Dams volume less than 60%:
    - 4.1.1 Watering of gardens may only be undertaken for two hour per day between 18:00–20:00, two days per week.
    - 4.1.2 A fine in terms of Section 75A of the Systems Act, being a 50% penalty on tariffs for monthly consumption in excess of 20 kilolitres per month per household connection, excluding indigent households.
    - 4.1.3 At sports fields only the watering of cricket pitches, golf course greens and bowling greens is permitted for two hours per day, twice per week, unless own source of water is used.
    - 4.1.4 No hosing of roofs and driveways and no washing of vehicles with a garden hose will be permitted.
    - 4.1.5 That the restriction referred to in 4.1.4 above not be applicable to any *bona fide* and full-time commercial enterprises whose business it is to wash cars.
    - 4.1.6 An effective awareness and education campaign processes must be conducted. The public awareness campaign must be intensified. A specific service provider with the relevant experience can be identified to fulfill this function. Where capacity does not exist within the Municipality an outside entity can be temporarily appointed.
    - 4.1.7 That water restrictions become effective immediately after being advertised in the media, and in public places.
    - 4.1.8 Consumers must be closely monitored and those that do not heed the restrictions identified. A specific person, with the relevant experience, must be identified to fulfill this function. Where capacity does not exist within the Municipality an outside entity can be temporarily appointed.
    - 4.1.9 Maintenance teams must be made available to address leakages on even in indigent households.
    - 4.1.10 A service must be made available - call centre number - where contraventions can be reported and followed up immediately by the relevant department and/or Law Enforcement.

**THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –  
ADOPTED 23 JUNE 2016**

- 4.1.11 Any person who contravenes these restrictions is guilty of an offence and is, upon conviction, liable to a fine as published in the annual tariffs list.
- 4.2 Dam volume less than 40%:
- 4.2.1 No watering of gardens using municipal water.
- 4.2.2 A fine, being a 100% penalty on tariffs for monthly consumption in excess of 20 kilolitres per month per household connection.
- 4.2.3 No hosing of structures, roofs and driveways and no filling of swimming pools.
- 4.2.4 Stricter policing and implementation of a complaint line and whistle blowers facility.
- 4.2.4 Consultation with bulk consumers in the industrial and business sectors as identified through the billing system.
- 4.2.6 Installation of flow restrictors to non-compliant consumers to water restrictions.
- 4.3 Dam volume less than 25%:
- 4.3.1 As mentioned in paragraph 4.2 above.
- 4.3.2 A fine, being a 200% penalty on consumption greater than 20 kilolitres per month per household connection.
- 4.3.3 Consumers to monitor their consumption to be 15 month, which amounts to the UN standard of 65l/s/person/day.
- 4.3.4 Installation of flow restrictors to non-compliant consumers to water restrictions.
- 4.3.5 Media to be utilized extensively for public awareness.
- 4.3.6 Other users, industries, businesses and the entertainment industries to reduce consumption by 40% of the average use over the previous 6 months.
- 4.3.7 The Provincial and the National Disaster Management Centers are to be alerted when the dam levels reach 25% and to prepare for possible intervention if an augmentation scheme is not at implementation readiness.
- 4.3.8 The district municipality is to be requested to act as the primary responsible authority responsible for the co-ordination and management of the local disaster, refer A:54(1) (b) of the Disaster Management Act , 2002, (Act 57 of 2002).

**THEMBELIHLE LOCAL MUNICIPALITY**  
**WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –**  
**ADOPTED 23 JUNE 2016**

- 4.3.9 A formal joint operations committee (JOC), to be established at the district municipality, weekly meetings with all the relevant stakeholders to coordinate emergency intervention actions needed.
- 4.3.10 The district municipality is to alert the National Defence Force as well as the South African Police Force.
- 4.3.4 That additional control measures be implemented as soon as the volume of the supplying rivers decreases below 300l/s and that the Municipal Manager be authorized to execute any further measures in consultation with the Executive Mayor.
5. The requirements of section 21A of the Municipal Systems Act, Act 32 of 2000, must be followed.

**10 WATER DEMAND MANAGEMENT**

1. The Municipality may in general or in emergencies by public notice, require any owner or consumer to comply with good water conservation and demand management practices as set out hereunder:
- a) No person may without prior written authority from the Head of Department responsible for municipal services water a garden, park, golf course or other grassed area using potable water, between the hours of 06:00 and 16:00.
  - b) Where a hosepipe is used to irrigate a garden, park, or sports field from a potable water source a controlling device such as a sprayer shall be attached to the hose end, depending on the dam levels and river flows.
  - c) A hosepipe used for washing vehicles, boats, and caravans must be fitted with an automatic self-closing device, depending on the dam levels and river flows.
  - d) Automatic top up systems using a float valve fed from a potable water source to supply swimming pools and garden ponds are not allowed.
  - e) Commercial car wash industries must recycle a minimum of 50% of the water used in operations.
  - f) Wash-hand basins provided in public facilities must be fitted with demand type taps.
  - g) Showers provided at public facilities must be fitted with demand type valves.
  - h) Potable water may not be used to dampen building sand and other building material to prevent it from being blown away.
  - i) Stand pipe draw-off taps must be at a height of at least 450mm, measured above ground level.
  - j) Water closet cisterns may not exceed 9,5 liters in capacity and such cistern must be of dual flushing mechanisms.
  - k) No automatic cistern or tipping tank may be used for flushing a urinal.

**THEMBELIHLE LOCAL MUNICIPALITY**  
**WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –**  
**ADOPTED 23 JUNE 2016**

- l) Within two years after the promulgation of this Policy all automatic flushing cisterns fitted to urinals, must be replaced with either manually operated systems or non-manual apparatus which causes the flushing device to operate after each use of such urinal.
- m) Terminal water fittings installed outside any buildings other than a residential dwelling must-
  - i. incorporate a self-closing device;
  - ii. have a removable handle for operating purposes;
  - iii. be capable of being locked to prevent unauthorized use; or
  - iv. be of a demand type that limits the quantity of water discharged in each operation;
- n) Each new dwelling must be fitted with a 500l tank to collect rain water.
- o) Turnaround time for repairing water leaks must be reduced to 2hrs.
- 2. Additional measures or practices, as deemed necessary may be implemented.
- 3. Infrastructure Maintenance - Installation of isolation valves in the network, rezone the areas for maintenance purposes.

**11. PLANNING**

- 1. The Head of Department responsible for municipal is responsible for the administration of the Water Services By-law and this Policy and must set up a multipurpose task team of Heads of Departments (or their duly authorised delegates) to develop programmes and establish frameworks:
  - a) An internal Drought Management Task Team must be initiated, under the chairmanship of the Department: Municipal Services, to include the CFO and the Municipal Manager and the meetings must be minuted.
  - b) Council is to convene to take cognizance of the situation and discuss the appropriate actions.
  - c) Thembelihle Disaster Management Unit must inform District Disaster Management of the situation and monthly meetings must be held to co-ordinate and exchange information.
  - d) When dam levels are at 40% and below, the options available to augment the raw water supplies must be carefully considered and the necessary planning must commence immediately to implement these as an emergency measure if required. The financial implications must be assessed and cost estimations compiled.
  - e) Emergency procedures must be followed, where legislation permits it e.g. the procurement of goods and services, appointment of personnel/service providers.

**THEMBELIHLE LOCAL MUNICIPALITY**  
**WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –**  
**ADOPTED 23 JUNE 2016**

- f) for the identification, development and management of effective and efficient water conservation measures;
- g) and set broad principles and appropriate criteria and mechanisms for the implementation and enforcement thereof;
- h) the required organisational capacity and working relationships between the different role players and the financial implication and budget allocations;
- i) to educate and raise awareness within the Municipality and the community, establish successful communication and co-operation between consumers, the Municipality and other spheres of government by implementing an effective communication programme as an ongoing activity;
- j) for proper risk management and effective measures to minimise and identify fraudulent activities relating to the scope of this Policy and the instituting of administrative sanctions and disciplinary measures against transgressors and legal proceedings;
- k) for recovering of money owed and the cost involved in the execution of the programmes;
- l) for short, medium and long term solutions-
  - i. designed to achieve sustainable reductions in water use;
  - ii. changes to the use of water with the purpose of gaining greater water use efficiency;
  - iii. the integration of the approved strategies into other water resources management functions;
  - iv. new and better management approaches, inter alia, for-
    - minimising the waste of and increasing the efficiency of water use by adopting water saving technologies by the Municipality and consumers;
    - removal of alien vegetation that negatively impact on catchment areas and rivers;
    - leak detection programmes;
    - any other measures to achieve the desired outcome.
  - v. for specific or in general water uses, conditions must be attached to the general authorisations and licences issued by
    - specifying management practices and general requirements for the different water uses and conservation measures;
    - by requiring, when applicable, the monitoring and analysis of and reporting and imposing a duty to measure and record aspects of the water uses;

**THEMBELIHLE LOCAL MUNICIPALITY  
WATER CONSERVATION AND WATER DEMAND MANAGEMENT POLICY –  
ADOPTED 23 JUNE 2016**

- specifying measuring and recording devices to be used;
- requiring the preparation and approval of and adherence to water management plans.

**12. USE OF TREATED WASTEWATER FOR INDUSTRIAL USE**

The following can be made with respect to the use of treated wastewater for industrial use.

- Undertake a detailed survey of all the industries, and consumers with irrigation potential, where after this option should be re-assessed.
- Carry out a further study to assess the quality required by the industries and the quality produced at the wastewater treatment works.

**13. WATER RESTRICTIONS**

The following can be made with respect to the water restrictions.

- Consider the application of a separate water tariff, to be applied during times of water restrictions.
- Ensure the continued equitable, fair and consistent application and monitoring of the existing water restrictions regulations.

**14. IMPLEMENTATION AND MONITORING**

This policy will be implemented by the Director: Corporate Services and effective once approved by Council.

**15. COMMUNICATION**

This policy will be communicated to all municipal residents using the full range of communication methods available to the municipality.

**16. POLICY REVIEW**

This policy will be reviewed annually and revised as necessary.