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THE WATER RESOURCES MANAGEMENT ACT
(CAP.331)

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REGULATIONS

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(Made under section 32(1))

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THE WATER RESOURCES MANAGEMENT (WATER RESOURCES CLASSIFICATION SYSTEM) REGULATIONS, 2018

ARRANGEMENT OF REGULATIONS

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THE WATER RESOURCES MANAGEMENT ACT
(CAP.331)

REGULATIONS

(Made under section 32(1))

THE WATER RESOURCES MANAGEMENT (WATER RESOURCES CLASSIFICATION SYSTEM) REGULATIONS, 2018

PART I
PRELIMINARY PROVISIONS

Citation

1. These Regulations may be cited as Water Resources Management (Water Resources Classification System) Regulations, 2018.

Application

2. These Regulations shall apply to all Water Resources in Mainland Tanzania.

Interpretation

3. In these regulations, unless the context otherwise requires:

Cap.331 "Act" means the Water Resources Management Act;

"aquifer" means an underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials from which water can be extracted;

"modified aquifer" means an aquifer whose resource has been utilized;

"biota" means all the plant and animal life in a particular region;

"buffer zone" means a neutral zone between two rival powers that is created in order to diminish the danger of conflict;

"dam" means a hydraulic structure of fairly impervious material built across a water course to create a reservoir on its upstream side for impounding water for various purposes;

"flow regime" means a range of stream flow having similar

characteristics of bed forms, and means of transporting sediment;

"integrated unit of analysis" means a water resource catchment that incorporates environmental and socio-economic aspects;

"lake" means natural and man made lakes;

"natural conditions" means unaltered state of nature;

"reserve" shall have the meaning ascribed to it under the Act;

"water quality objective" means the status of water resources use which has been determined by the Minister as a desired state to be attained in an agreed time frame;

"water resource classification" means the way of reporting the status of a water resource, it can indicate the quality of the environment and where it may need improvement;

"water resource classification system" means a set of guidelines and procedures for determining the different classes of water resources; and

"Wetland" means areas of marsh, fen, peat-lands or water whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salty, including areas of marine water the depth of which at low tide does not exceed six meters.

PART II
CLASSIFICATION SYSTEM

Water Resource Classification system

4.-(1) The water resources classification system shall comprise of the extent of use, reserve, resource quality objectives and determination of type of use of water resource.

(2) The system shall set out homogeneous groups basing on location, type, geographical area, geomorphology, use and other related factors.

(3) The classification of water resources shall include river, lake, estuary, aquifer, dam and wetland.

Classification levels

5.-(1) The classification of water resources shall be in three hierarchical levels namely level I, level II and level III attributed as follows:

(a) Level I, which shall use location and geographical area attribute;

(b) Level II, which shall use type of water bodies namely

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rivers, lakes, dams, estuaries and aquifers; and

(c) Level III, which shall use nature, size, water use or regime attributes.

(2) The hierarchical levels shall be as prescribed in the Schedule to these Regulations.

Determination of Water quality objectives

6.-(1) Procedures for determination of water quality objectives for each water resources shall comprise of:

(a) hierarchical level; and

(b) determination for each class of homogeneous group.

(2) The Minister may, for better carrying out of the provisions of these Regulations, issue guidelines prescribing water resources quality objectives, reserve or any other matter as may be determined from time to time.

(3) Stakeholders consultative meeting shall be conducted for setting water quality objectives.

PART III
CLASSIFICATION

(a) River

Class of river

7.-(1) A river shall be classified as follows;

(a) Class A River;

(b) Class B River;

(c) Class C River; and

(d) Class D River.

(2) Class A River shall be comprised of:

(a) its natural condition and has no risk to sensitive species within aquatic ecosystems constituents;

(b) flow regime with its natural conditions;

(c) in-stream habitats with in their natural condition;

(d) riparian vegetation with its natural condition and has control of land uses in the riparian zone that ensures insignificant modification of vegetation within set distance from banks; and

(e) with biota which is in its natural condition.

(3) Class B River shall be comprised of:

(a) water quality which has slight risk to intolerant biota;

(b) with a flow regime which is close to natural and with slight risk to intolerant biota;

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(c) in-stream habitat which is slightly modified from its natural conditions;
(d) riparian vegetation which is slightly modified from its natural conditions; and
(e) biota which is slightly changed from natural conditions especially intolerant biota may be reduced in numbers or in extent of distribution.

(4) Class C River shall be comprised of:
(a) water quality with moderate risk to intolerant biota;
(b) flow regime with moderate risk to intolerant biota;
(c) riparian vegetation which is moderately modified from its natural conditions; and
(d) biota which is moderately changed from natural conditions.

(5) Class D River shall be greatly modified with:
(a) water quality which has high risk to intolerant biota;
(b) flow regime which has high risk of loss of intolerant biota;
(c) in-stream habitat which has high degree of modification from natural conditions;
(d) riparian vegetation which has high degree of modification from natural conditions; and
(e) biota which is highly modified from natural conditions.

Determination of classes of rivers

8.-(1) Procedure for determination of different classes of Rivers shall comprise of defined integrated units of analysis in terms of:
(a) Current environmental conditions;
(b) Ecological importance;
(c) Present development state and use; and
(d) Estimated direction of change.

Consideration for classification

9. A lake shall be classified by considering the following:
(a) strategic objectives and priorities set at national and basin levels;
(b) existing and potential water uses; and
(c) ecological significance of the Lake.

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(b) Lakes

Classification of lakes

10.-(1) The class of lake shall be as follows:
(a) Class A Lake;
(b) Class B Lake;
(c) Class C Lake;
(d) Class D Lake; and
(e) Class E Lake.

(2) Class A Lake shall be:
(a) in its natural conditions which has significant ecological importance;
(b) a relatively very large buffer zone;
(c) free from human activities which adversely affect the ecological integrity of the lake in the buffer zone; and
(d) prohibited from fishing activities and limited public access.

(3) Class B Lake shall be:
(a) in its natural environment or those which have significant ecological importance;
(b) allowed for public recreational access and limited fishing activities;
(c) with limited human activities in the buffer zone; and
(d) with relatively large buffer zone.

(4) Class C Lake shall:
(a) be in a predominantly natural setting;
(b) allow controlled human activities in the buffer zone;
(c) have relatively medium buffer zone; and
(d) allow fishing.

(5) Class D Lake shall:
(a) be in a predominantly natural setting;
(b) have controlled human activities in the buffer zone;
(c) have relatively small buffer zone; and
(d) allow fishing.

(6) Class E Lake shall:
(a) be in a predominantly natural setting;
(b) have controlled human activities in the buffer zone;

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(c) have relatively very small buffer zone; and
(d) commercial fishing is allowed.

(7) The size of the buffer zone shall be provided in the guidelines to be issued by the Minister as reviewed from time to time.

Determination of class of lake

11.-(1) Procedure for determination of classes of lakes shall comprise of:

(a) Collection of data regarding the lake and buffer zone attributes which includes;
  (i) National or Basin wide strategic objectives;
  (ii) current environmental conditions;
  (iii) present development state and existing use;
  (iv) water quality;
  (v) ecological significance; and
  (vi) information on fish and other species;

(2) Stakeholders' consultative meeting shall be conducted for setting up water quality objectives;

Consideration for classification

12.-(1) An aquifer class shall describe current level of modification.

(2) Level of modification shall be determined by assessing demand and aquifer's safe yield.

(3) The vulnerability of an aquifer to contamination shall be assessed basing on type, thickness, extent of geological formation overlying the aquifer, depth to water table, the type of aquifer formation, recharge and boundary conditions.

(c) Aquifer

Classification of aquifer

13.-(1) Aquifers shall be classified as follows:
(a) Class A Aquifer;
(b) Class B Aquifer;
(c) Class C Aquifer; and
(d) Class D Aquifer;

(2) The determination factor for aquifer class shall be as follows:
(a) Class A shall not be modified aquifer;

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(b) Class B shall be lightly modified;
(c) Class C shall be moderately modified; and
(d) Class D shall be heavily modified.

Determination of aquifer class

14. Procedures for determination of aquifer class shall comprise of:
(a) carrying out hierarchical classification;
(b) determination of safe yield of the aquifer;
(c) determination of basic human needs demand satisfied by the aquifer yield;
(d) delineating the aquifer;
(e) determination of pollution threats of the aquifer; and
(f) identification and prioritisation of management actions with stakeholders.

(d) Estuary

Class of estuary

15.-(1) An estuary shall be classified as follows;

(a) Class A Estuary;
(b) Class B Estuary;
(c) Class C Estuary;
(d) Class D Estuary;
(e) Class E Estuary; and
(f) Class F Estuary.

(2) The estuary classes are as follows:
(a) Class A estuary shall be unmodified and in pristine condition;
(b) Class B estuary shall be minimally modified;
(c) Class C estuary shall be moderately modified; and
(d) Class D estuary shall be heavily modified.

Determination of class of estuary

16.-(1) Procedures for determination of different classes of estuary shall comprise of described estuary in terms of:

(a) current environmental conditions;
(b) ecological importance;
(c) present development state and use; and
(d) estimating the direction of change.

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(2) Stakeholders' consultative meeting small be conducted for setting out water quality objectives.

GENERAL PROVISIONS

Classification of dam, wetland

17. The circumstances and procedures used to classify river, lake, estuary aquifer as prescribed under these Regulations may be used to classify dam or wetland or other water resources which have not been classified in these regulations, provided they are in the same hydrological system.

Determination of reserve

18. Procedures for determining reserve and prioritizing management actions for a water resource shall comprise of the following:

(a) collection of water resource and environmental data regarding;
  (i) hydrology;
  (ii) Hydrogeology;
  (iii) biota;
  (iv) geomorphology;
  (v) land cover and land use;
  (vi) socio-economic; or
  (vii) water quality testing.

(b) determination of water requirement for:
  (i) domestic purposes;
  (ii) ecological reserve; and
  (iii) socio-economic activities depending on the availability of water resource.

(c) identification of water quality threats and opportunities; and

(d) identification and prioritize management actions with stakeholders.

SCHEDULES

Dodoma,
14th March, 2018

ISACK A. KAMWELWE,
Minister for Water and Irrigation

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SCHEDULE

(Made under regulation 5(2))

A: Hierarchical Classification System of Water Resources

LEVEL I: LOCATION OF WATER RESOURCES		BASIN (*Identify Specific Unit for Classification/integrated unit of analysis*)															
LEVEL II: TYPE OF WATER RESOURCES		RIVER				LAKE			DAM			ESTUARY			AQUIFER		
LEVEL III: SIZE/REGIME/ TYPE/ORIGION OF WATER RESOURCES	**SIZE**	Small	Medium		Large	Small	Medium	Large	Small	Medium	Large	Small	Medium	Large	confined	unconfined	Perched
	REGIME	Perennial	Ephemeral	Seasonal		Oligotrophic	Mesotrophic	Eutrophic	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	ORIGION	N/A	N/A	N/A	N/A	Tectonic/ Rift valley	Fluvial/ Riverine	Volcanic/Crater	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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B: Meaning of terms

Level	Attribute	Attribute definition
LEVEL I: LOCATION OF WATER RESOURCES (BASIN)	Basin	Is the land area that is drained by a river and its tributaries or a lake. In the context of these Regulations, it is an area declared by the Minister to be under a Basin Water Board (refer WRMA provision)
LEVEL II: TYPE OF WATER RESOURCES LEVEL III: SIZE/REGIME/TYPE/ORIGION OF WATER RESOURCES	River	A River is a longitudinal depression that passes water from upstream to downstream locations. (*The size of rivers enumerated hereunder will be as determined in the guidelines*) Perennial river contains water in all days of a year under natural conditions Ephemeral river is that containing water in at least 10 out of 12 months of a year under natural conditions Seasonal river is that containing water in less than 10 months of 12 months in a year under natural conditions
	Lake	A lake is a spatially confined depression that temporarily or permanently stores water, which is either stationary or slowly moving.
	Estuary	Estuary is a lagoon consisting of a mixture of fresh and saline waters (The size of estuary enumerated herein will be as determined in the guidelines)
	Dam	A dam is a hydraulic structure of fairly impervious material built across a river to create a reservoir on its upstream side for impounding water for various purposes. (The size of rivers enumerated herein will be as determined in the guidelines for Dam Safety Regulations)
	Aquifer	Aquifer is an underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials

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		(gravel, sand, or silt) from which water can be extracted .. Confined aquifer is an aquifer that is overlain by a confining layer, often made up of clay which offers some protection from surface contamination. Unconfined aquifer (sometimes also called *water table* or *phreatic* aquifers) is one which is not overlain by confining layer; rather the upper boundary is the water table or phreatic surface. Perched aquifer refers to ground water accumulating above a low-permeability unit or strata, such as a clay layer. This term is generally used to refer to a small local area of ground water that occurs at an elevation higher than a regionally extensive aquifer. (*The size of aquifers enumerated herein will be as determined in the guidelines.*)