GOVERNMENT NOTICE No. 11

WATER RESOURCES ACT

(CAP. 72:03)

WATER RESOURCES REGULATIONS, 2018

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IN EXERCISE of the powers conferred by section 157 of the Water Resources Act, I, JOSEPH MWANAMVEKHA, Minister of Agriculture, Irrigation and Water Development, make the following Regulations—

PART I—PRELIMINARY

Citation

1. These Regulations may be cited as the Water Resources Regulations, 2018.

Interpretation

2. In these Regulations, unless the context otherwise requires—

"abstraction" means the extraction of water from any water source, either permanently or temporarily;

"accident" means any unintended event or occurrence including operating errors, equipment failures or other mishaps, the consequences or potential consequences of which are not negligible from the point of view of protection or safety;

"air line" means a tube installed in a borehole or well for the purposes of measuring water level;

"alien species," means any exotic, non-indigenous life forms originating from outside a given ecological location;

"alteration" in relation to borehole means any physical change in the depth, diameter, casing, screen or any other structural change in an existing borehole, or any consequent change in permit yield as a result of an approved variation;

"analysis" means the testing or examination of any matter, substance or process for the purpose of determining its composition or qualities or its effect (whether physical, chemical or biological) on any segment of water or examination thereof;

"appurtenant" means any right or restriction which goes with a property, such as an easement to gain access across a neighbour's land or parcel or a covenant, against blocking a neighbour's view;

"artificial groundwater recharge" means the intentional augmentation of groundwater resources by directly improving the infiltration of water to a target aquifer through the construction of suitable recharge structures;

"association of water users" means a Water Users Association (WUA), riparian land owners, or other stakeholders who have formally and voluntarily associated for the purposes of cooperatively sharing, managing and conserving a common water resource;

"authorization" means a permission granted before a licence is issued;

"basic human needs" means the quantity of water required for drinking, food preparation, washing of clothes, bathing, and basic sanitation and is assumed to be equal to 27 litres per person per day;

"beneficial use" means the usefulness into which water is put from the way it is utilized;

"buffer zone" means a strip of vegetated or bare land along a river bank or shoreline of a watercourse, which acts as a screen for protecting the water body or a receptor from environmental degradation;

"canal" means any surface drain, ditch, furrow, channel, flume or other conduit for conveying water, the surface of which is at atmospheric pressure;

"catchment management plan" means a programme of measures that have been developed for the purposes of conserving and or improving the conditions of the catchment;

"catchment management strategy" means a strategy that has been prepared for the purpose of directing the management of a catchment area;

"chemical" means a substance in any form whether by itself or in a mixture or preparation, whether manufactured or derived from nature and includes industrial chemicals, pesticides, fertilizers and drugs;

"commercial irrigation" means large-scale production of crops through irrigation practices;

"compensation flow" means the flow released from a dam, weir or any impoundment which is required for the maintenance or sustenance of downstream ecosystem;

"control device" means a fitting, equipment or infrastructure which can be adjusted so as to control the flow or level of water;

"contamination" means the presence of materials or substances in or on any place where they are undesirable or could be harmful;

"dam" means an embankment constructed for the purpose of retaining water;

"dam failure" means the collapse of a barrier resulting into uncontrolled release of impounded water which can cause downstream flooding which can negatively affect life and property;

"decommissioning a borehole" means the permanent safe closure, removal or complete sealing of a borehole with sealants or other materials to prevent its use for any purpose;

"discharge or disposal" means the continuous or intermittent release of wastes or effluent;

"domestic water demand" means the quantity of water required to satisfy all domestic needs;

"drainage regime" means the physical and hydrological circumstances that may affect drainage in a catchment, including the use

of land but excluding any circumstances that arise from works that are unlawfully carried out or from any unlawful use of land;

"driller", "borehole driller" or "drilling contractor" means a person who, or firm or agency which is registered to undertake the construction or rehabilitation of a borehole;

"drilling permit" means the permit granted under regulation 69;

"easement of aqueduct" means an easement for the storage of water by the construction of a dam, weir, obstruction or other works, with the consequent submergence of the area covered by stored water, but in this connection does not include an easement of work;

"easement of work" means an easement for the construction of a dam, weir, embankment, training works, pump, turbine, power-house and other ancillary works, but does not include an easement for storage, except when the water stored is obtained from a well;

"effluent discharge management plan" means plan to regulate the release of effluent as referred to in the Seventeenth Schedule of these Regulations;

"environmentally friendly" means any phenomenon or activity that does not cause harm or degradation to the environment;

"environmental management" means a mechanism aimed at the protection, conservation and sustainable use of the various elements or components of the environment;

"Environment Management Plan" means the plan to manage sustainable use of environment as referred to in the Environment Management Act;

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"emergency" means a disaster or hazard caused by climatic, hydrologic, tectonic, accidental, natural or man-made events which have affected, or potentially can affect, a large population and which require extra-ordinary measures to be undertaken to safeguard public interests and environment;

"fish farming" means the breeding or raising of fish for the purposes of commercial production;

"flood" means an overflowing of a large amount of water above or beyond the banks of a river or stream or inundation or overflow of water from any water body beyond its normal confines, especially over land not normally submerged;

"guidelines" means the description of the methodology for water and waste water quality determination;

"irrigation" means the artificial application of water to a plant;

"lead agency" means any government ministry, department, parastatal, state corporation or local authority, in which any law vests functions of control or management of any element of the environment or natural resources;

"legally registered entity" means an organization, corporate body or person that has legal status;

"major water user" means any individual, company or organization which consumes water at least ten times than the average household use;

"measuring device" means a fitting, equipment or infrastructure which can be calibrated to provide an accurate measure of the flow or level of water;

"natural water body" means groundwater and water contained in or flowing in a spring, stream, lake, pond, wetland, marsh or swamp;

"non-point source pollution" means pollution which originates from many diffuse or dispersed sources;

"normal flow" means the water flowing in a river or a water course of which its level or depth is within the normal river bank depth and does not overflow the banks;

"normal water level" means—

(*a*) for a reservoir with a fixed overflow, the lowest crest level of that overflow;

(*b*) for a reservoir whose outflow is controlled wholly or partially by movable gates, siphons or other means, it is the maximum level to which water may rise under normal operating conditions, exclusive of any provision for flood surcharge;

"operator" means any person authorized to construct works under these Regulations by authorization, or to divert, abstract, or use water by permit;

"overflowing borehole" means a borehole from which groundwater discharges at ground surface under natural head, normally called artesian;

"pan" means hand or mechanically excavated structure constructed for retaining water;

"permit holder" means a person to whom the Authority has issued a permit or any other person acting under the authority of the permit holder;

"person" means an individual, corporation, company, association, government department, partnership or a local authority;

"pH" means a measure of acidity or alkalinity of a solution;

"point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, conduit, tunnel, well, discrete fissure, container, rolling stock, concentrated animal feeding operation or vessel or other floating craft from which pollutants are or may be discharged;

"pond" means a natural or artificial depression that contains water;

"proprietary information" means any information relating to any manufacturing process, trade secret, trademark, copyright, patent or formula protected by the law or by international agreement to which Malawi is a party;

"qualified professional" means a person qualified under these Regulations to provide the services of a professional water chemist, hydrologist, hydrogeologist, civil engineer, water resources engineer, surveyor or other professional service required to be performed under the Act or under these Regulations;

"receiving water body," means any surface or groundwater body that may be used for effluent disposal under the Act;

"rehabilitation" means any physical, mechanical or chemical process conducted in any water infrastructure which is undertaken to improve its operational status;

"return flow" is the portion of the abstracted water that is returned to the water course;

"riparian land" is land that occurs along watercourses or water bodies such as flood plains or river banks;

"soil and water conservation plan" refers to a set of activities that have to be done in order to reduce the likelihood of soil and water loss from the landscape;

"stakeholder" means a person who or an entity that has influence over or is affected by a certain activity on the resource;

"standards" means the limits as established under these regulations which are made pursuant to the Act or any other written law;

"test yield" means the average discharge rate of the constant discharge pumping test conducted on a borehole;

"variation" means any authorized amendment made to a licence or a permit;

"watercourse' means a channel that a flowing body of water follows;

"Water Resources Monitoring Network" means plan or system established for the purpose of monitoring the quantity and quality of the water resources;

"waterway" means a navigable watercourse or any navigable water body;

"water works" means man-made structure, contrivance, device on a river, stream, brook, rivulet, spring, lake, lagoon, marsh, swamp, aquifer or any watercourse or water body which modifies discharge in terms of magnitude, velocity of water, diverts flow, changes water level or alters physical, chemical or biological composition of the water, or has potential of obstructing other water users, but does not include utensils or water vessels.

"weir" means an obstruction constructed or placed across the watercourse or body of water for the primary purpose of abstracting or diverting water, or of arresting or retarding its flow, but not for storage; and

"wetland" means areas of marsh, fen, peat land, or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, blackish or salt including areas of marine water the depth of which, at low tide, does not exceed six meters.

Units

3. For the purposes of these Regulations, unless specifically stated otherwise, the units shall be *Systeme Internationale* (SI) Units.

Application of Regulations

4.—(1) These Regulations shall apply to all policies, plans, programmes, and activities that are subject to the Act.

(2) These Regulations shall apply to all water resources, waterworks and water bodies in Malawi including lakes, streams and rivers, whether perennial or seasonal, and aquifers.

Public consultation

5.—(1) Unless otherwise provided by the Authority, a public consultation shall consist of the activities as stipulated in section 156 of the Act.

(2) In giving effect to the requirements of public consultation, the Authority may take proactive steps to engage members of the public who may otherwise not be informed or aware of the issues being brought before them.

(3) The Authority may, in addition to the activities stipulated in section 156 of the Act, require an authorized person to hold a public meeting relating to the application or proposed action.

Orders

6.—(1) The Authority may issue an order on any person to desist from any activity, or for the carrying out of corrective measures to improve compliance to these Regulations or conditions for better water resource quality and or catchment conditions.

(2) The order under this regulation shall specify the measures that need to be taken, the period of time for compliance with the order, and any other conditions pertaining to the compliance of the order.

(3) Any person who has been served with an order under this regulation by the Authority and fails to comply within the period specified in the order commits an offence.

(4) A person who fails to comply with an order by the Authority under this regulation may be liable to have his licence or permit suspended cancelled, or varied.

(5) Any person who objects to any part of an order served on him by the Authority shall respond in writing to the Authority within fourteen days, giving justification for his objection.

(6) Where a person objects to the order under this regulation, the Authority shall, within seven days of receiving the objection, notify the person served with the order of any changes to the conditions of the order.

(7) Where a person fails to comply with an order within the timeframe stated in the order, the Authority may take any appropriate measures to prevent the activity mentioned in the order including the confiscation of equipment, plant or works, and any costs incurred by the Authority in effecting these measures shall be a cost recoverable from the recipient of the order

(8) Where a person is dissatisfied with any decision or action by the Authority, the person may appeal against the decision or action of the Authority in accordance with section 142 of the Act.

(9) Where the Authority determines that an activity may cause deterioration of the water resource quality, the provisions of section 103 of the Act regarding adoption of corrective measures shall apply.

Protection of integrity of the water resource monitoring network

7.—(1) Any person who undertakes any activity that damages or hinders the proper functioning of the water resource monitoring network shall meet the cost of repair, within a period determined by the Authority.

(2) Any person who undertakes any activity that damages or hinders the proper functioning of water resource monitoring network and who fails to make good the damage or cover the costs of repair, commits an offence and shall be penalized as stipulated in the Twenty Third Schedule.

Requirement to obtain a licence

8. Any person who intends or undertakes any activities relating to water, which under the Act require a licence, shall obtain a licence or a permit, as the case may be, from the Authority to undertake the activity.

Nature of an applicant

9.—(1) An application under regulation 8 shall be made by any person who wishes to undertake any activities regarding water defined in the Act.

(2) The Authority shall require the applicant to provide satisfactory evidence of a person or body's legal status.

(3) An application under this regulation shall be made by a person intending to engage in the activity relating to the use of water.

10. The Authority shall assign a unique number (in these Regulations also known as the Water Resource User Identification Number) for each water user within a given catchment area which shall be used as a reference number in respect of all correspondence, approvals, licences or permits issued by the Authority. Water resource user identification number

11.—(1) Where the intended water use activity is on any land, the Authority may require the applicant to furnish satisfactory evidence of land ownership or permission to undertake the water use activity on any land related to the application. Authorized water uses appurtenant

(2) Satisfactory evidence may consist of, but is not limited to, an authentic title deed, lease agreement, easement, way leaves or a letter from the land owner or community endorsed by the District Commissioner.

PART II—REGISTRATION OF EXISTING RIGHTS

12.—(1) Any person claiming an existing right shall register the right with the Authority within twelve months of coming into force of these Regulations. Requirement for registration

(2) A person claiming the existing right who fails to register with the Authority within the time specified in subregulation (1), shall be deemed to be a new applicant and shall be required to make a new application in accordance with the Act.

13.—(1) A person with an existing right shall notify the Authority— Application to register an existing rights

(*a*) for abstraction and use of water, in accordance with Form A of the First Schedule; and

(*b*) for existing users of ground water, in accordance with Form B of the First Schedule.

(2) An application for registration under subregulation (1) shall be accompanied by a fee specified in the Twenty Third Schedule.

14. The Authority shall consider the application for registration of an existing right submitted in accordance with Regulation 13 and may— Consideration by the Authority

(*a*) require the applicant to prepare and submit plans or other information to support the application made under Regulation 13; and

(*b*) by a person duly authorized by the Authority, enter any land and carry out any investigations that the Authority may deem necessary to process the application.

15.—(1) The Authority may, after considering the application in terms of regulations 12 and 13, register the existing rights under such conditions as may be necessary under the Act and these Regulations. Registration of existing rights

(2) The Authority shall register any existing right under subregulation (1) in a register containing the details set out in the Nineteenth Schedule hereto.

Application for licence

16.—(1) A person who wishes to construct, own, or control any works which—

(*a*) uses a motorized water pump, whether temporarily or permanently, to pump water from a borehole or waterway;

(*b*) is a weir, dam, tank or other work capable of diverting or impounding an inflow of more than 100 cubic meters in any period of twenty-four hours,

shall apply to the Authority for a licence.

(2) An application referred to in subregulation (1) shall—

(*a*) be in the form specified in the Second Schedule except that—

(i) Form A1 shall be used for surface water licence; and

(ii) Form B1 shall be used for ground water licence;

(*b*) be accompanied by the fee specified in the Twenty Third Schedule;

(*c*) in the case of an application relating to exploratory borehole, be accompanied by a borehole completion report specified in the Seventh Schedule; and

(*d*) in the case of all other applications, be made before any works referred to in subregulation (1) are constructed.

(3) The applicant shall describe the intended purpose for which the application is made.

(4) The Authority may, depending on the description of the intended purpose, require a Technical Report in the format contained in the Seventeenth Schedule hereto.

(5) The Authority may—

(*a*) require an applicant to prepare and submit plans or other information to support the application made under this regulation;

(*b*) by itself or through a person duly authorized by the Authority enter any land and carry out any investigations that are necessary to enable the Authority to process the application;

(*c*) after the provisions of this regulation are complied with, grant the licence on such conditions as are necessary.

(6) A separate application for water resource use shall be made to the Authority with respect to the following criteria—

(*a*) each abstraction point, whether from surface or groundwater;

(*b*) each effluent discharge point unless covered under another application;

(*c*) each point of storage unless covered under another application;

(*d*) separate activities other than those covered in paragraph (*a*), (*b*) and (*c*).

Advertisement of application

17.—(1) The Authority may require an applicant for a licence, at the applicant's cost, to advertise the application for a licence in such manner as the Authority may in writing specify.

(2) The Authority may request an applicant referred to in subregulation (1), in any notice advertised under that subregulation, to invite submissions on that application within such period as the Authority may specify in writing.

Authority to consult public authorities on application

18. The Authority shall, after receipt of any application referred to in Regulation 16, refer the application to any public authority envisaged under section 44 of the Act for consideration and comments.

Water Users Associations' comments on application

19.—(1) The Authority shall submit a copy of every water use application to the relevant registered water users association, where one exists in the area, for comments.

(2) Water users association shall submit any comments on a water use application to the Authority within thirty days of receipt of the application by the association.

(3) The Authority may proceed to determine any application after the expiry of the period of time for the water users association to comment on the application.

Public notification of licence application

20.—(1) The Authority shall cause to be published quarterly at least in one national newspaper of wide circulation and in the Government *Gazette*, a list of all the licence applications.

(2) The Authority shall cause to be displayed a notice of all applications received, within a particular region, at the District Commissioner's, chief's and the Authority's regional offices at the end of each month.

(3) The Authority shall cause to be displayed at the Catchment Management Board's Office a notice of all applications received by the Authority, within each Catchment Management Board, at the end of each week.

(4) The public notification shall state the name of the applicant, the water resource for which the application has been made, the quantity and purpose for which the application has been made, the land registration number and any additional details that the Authority may consider relevant to the public with respect to the licence application.

Objection to licence application

21.—(1) Any person may object in writing to the Authority stating grounds for the objection, to the grant of any licence application.

(2) The objection shall be lodged with the Authority, and copied to the association, within thirty days of the public notification of the licence application.

(3) The Authority shall acknowledge receipt of an objection by writing to the applicant and the person objecting within fourteen days of receiving the objection.

(4) The Authority shall notify the person objecting in writing, within twenty-one days of its decision with respect to the application.

Site meeting

22.—(1) Where any objection has been lodged against a particular licence application, the Authority may undertake a site meeting with relevant stakeholders and association, if one exists in the area, at the particular place for which the application has been made before determining the licence application.

(2) The Authority shall provide fourteen days notice to all relevant parties and association, if one exits, of the date and location of the proposed site meeting.

(3) The site meeting referred to in subregulation (1) shall be open to the public.

Rejection of application

23. Where the Authority rejects an application, it shall within thirty days of the decision having been made, notify the applicant, and any person objecting to the application, of its decision in writing.

Factors to be taken into account when considering an application

24. In addition to the criteria specified in section 41 of the Act, the Authority shall, when considering an application under regulation 16, take into account the following factors—

(*a*) the existing and projected availability of water in the area;

(*b*) any adverse effect which the facility or allocation or use of water under the licence is likely to have on—

(i) existing authorized uses of water;

(ii) an aquifer or waterway, including effects on land which forms the waterway or its surroundings;

(iii) the drainage regime;

(iv) the environment, including the riverine and riparian environment;

(v) in-stream uses of water;

(*c*) any water to which the applicant is already entitled;

(*d*) the availability of any alternative sources of water;

(*e*) the need to protect the environment;

(*f*) Government policy on conservation;

(*g*) Government policy relating to the preferred allocation or use of water resources;

(*h*) any presentation from the public regarding the application;

(*i*) if the application relates to works on a waterway, the safety of those works and the likely effect of the escape of water from those works; and

(*j*) the comments made by a public authority under regulation 18.

(*k*) economic benefits; and

(*l*) public interests.

Conditions attached to and transfer of licences

25.—(1) The Authority may grant a water licence in the forms specified in the Third Schedule, and—

(*a*) Form C1 shall be used for surface water licence; and

(*b*) Form C2 shall be used for groundwater licence.

(2) In addition to the conditions specified in section 43 of the Act, the Authority may attach any or all of the following conditions to a licence—

(*a*) the licence shall be granted subject to such conditions as are relevant to the specified particular types of uses determined by the Authority;

(*b*) conditions relating to the standard of—

(i) construction;

(ii) dimension;

(iii) any other feature of the works; and

(iv) any associated works;

(*c*) conditions relating to the future maintenance and operation of the works and any associated works and the date on which operation of these works may commence;

(*d*) the date of commencement of work on the works and the notice required to be given of that commencement;

(*e*) the submission of reports on the carrying out of work on the works;

(*f*) the period within which work on the works shall be completed;

(*g*) the qualifications that shall be held by any person who is to undertake, design, construct or operate the whole or any part of the works;

(*h*) in the case of works on a waterway, additional works or measures to be undertaken for—

(i) the protection and enhancement of in-stream uses of water;

(ii) the protection of water and its surroundings;

(iii) the maintenance of flow in the waterway; and

(iv) the maintenance of the drainage regime;

(*i*) in the case of works for a storage of water within a waterway, steps to be taken to maintain the availability of water to satisfy other users;

(*j*) the purposes for which water may be used;

(*k*) the maximum amount of water which may be taken at a particular period or under the circumstances;

(*l*) payment for the water used;

(*m*) the protection of the environment;

(*n*) Government policy on conservation;

(*o*) the efficient use of water resources;

(*p*) the manner in which the applicant shall compensate any person whose existing authorized use of water may be adversely affected by the allocation or use of water under the licence;

(*q*) the protection or control of in-stream uses of water; and

(*r*) the installation and use of measuring devices or pumps.

(3) An Applicant shall fulfill all the conditions prescribed in the licence at his cost within the period of time stated on the licence.

(4) Failure to comply with the conditions of the licence shall constitute sufficient cause to suspend or cancel the licence.

(5) A licensee shall maintain a record of all water abstracted, diverted, stored or discharged, giving the date, time, quality and quantity and methods of such abstraction, diversion, storage, or discharge and the purpose or purposes for which such water was used, and such records shall be furnished to the Authority at such times as the Authority may request for them.

(6) A person who becomes an owner or occupier of any premises in respect of which a licence exists shall continue to abstract water in accordance with the conditions and terms spelt out in that licence for a period of ninety days from the date on which that person becomes the owner or occupier of the premises.

(7) After the expiry of the period referred to in subregulation (6), the Authority shall, on receipt of a notification from the person referred to in subregulation (6), set out in the Fourth Schedule, grant that person a licence on conditions which are not more onerous to the applicant than the conditions attached to the previous licence relating to those premises if the Authority is satisfied that the purposes for which the premises are to be used and the amount of water required will not change in any material respect.

Authorization to construct works

26.—(1) Once the application for a water use licence has been approved by the Authority, the Authority shall issue an authorization to construct works.

(2) The authorization issued under subregulation (1) shall provide the commitment by the Authority to issue a valid water use licence if the conditions stated on the authorization are fulfilled.

(3) The Authority shall specify the duration for completion of the works in the authorization.

(4) Failure by a holder of an authorization under this regulations to complete works, within the allocated time, may result in the cancellation of the authorization, unless the holder has been granted an extension of time under regulation 28.

Limitations of authorization

27. A licence shall not be regarded as allowing the applicant to commence abstraction or the proposed use of the water until the conditions governing the licence are certified as having been met.

Extension of licence or authorization

28.—(1) Where a holder of a licence or an authorization fails to complete the works within the time limited by the licence or an authorization, then a Progress Report shall be submitted to the Authority in lieu of a Completion Certificate and the holder may apply for an extension of time to the Authority, which may be granted on such terms as the Authority may specify.

(2) Notwithstanding the generality of subregulation (1), the Authority may extend the period of a licence or authorization subject to subregulation (3), for a period not exceeding twelve months after the initial licence period.

(3) The Authority may grant an extension beyond twelve months subject to adequate and reasonable justification or proof of satisfactory and continuing progress.

Completion Certificate

29.—(1) Upon the expiry of the period specified in a licence or before the expiration of that time, if the construction be sooner completed, the applicant shall submit to the Authority a Completion Certificate.

(2) Within twenty one days of the receipt of a Completion Certificate, the Authority shall inspect the works to ascertain that all the special conditions stated on the licence have been fulfilled to its satisfaction.

(3) Inspection of the works shall be undertaken by a water resources inspector or by an authorized person.

(4) If the inspector of the works is not satisfied with the completion status of the works, he shall issue an order within fourteen days detailing steps that shall be taken to bring the works to a satisfactory condition.

(5) Where an inspector of the works is satisfied that the works are complete, the Authority shall issue a licence within twenty one days of the date of inspection.

Requirements for fees

30.—(1) An applicant for licence shall be required to pay fees for the licence validity period, as contained in the Twenty Third Schedule before a valid licence is issued.

(2) Failure to pay the appropriate fee shall constitute a ground a basis for revocation of approval for water use.

Transfer of licence by licensee

31. A licensee may apply in writing to the Authority for the transfer of his licence to another person.

Variation of licence by a licensee

32.—(1) A licensee may apply in writing to the Authority for variation of his licence as provided for in section 53 of the Act and may include the following activities—

(*a*) modifications at the point of diversion or abstraction;

(*b*) varying the water use;

(*c*) changing the point of use;

(*d*) mixing water covered under different licences;

(*e*) replacement, deepening, widening or any other modification to an existing borehole or any water works requiring approval by the Authority;

(*f*) abandonment of an existing water works that would normally require approval by the Authority;

(*g*) artificial recharge of groundwater; or

(*h*) any other type of water development that may, from time to time, be determined by the Authority.

(2) Where the variation is such that it does not result in a change in the category of water use, the Authority shall within thirty days issue a revised licence.

(3) Where the variation is such that it results in a change in the category of water use, the licensee shall be required to reapply.

(4) A licensee who fails to notify the Authority of a variation of his licence status commits an offence.

Variation or cancellation of licence by the Authority

33.—(1) The Authority may vary or cancel a licence as provided for in sections 50 or 52 of the Act.

(2) A licensee shall respond within thirty days of receipt of a notification for cancellation or variation, showing cause to the Authority as to why the licence should not be varied or cancelled.

(3) In order to give effect to the cancellation or variation of any licence, the Authority may take any appropriate measures for enforcement including the confiscation of equipment or plant, or removal of works and any costs incurred by the Authority in effecting these measures shall be a cost recoverable from the licensee.

(4) The Authority shall notify a licensee of any licence variations or cancellations within thirty days of the variation or cancellation.

Limitation of liability of the Authority with respect to licences issued

34. A holder of licence under the Act shall not be allowed to use the licence as a defence to any civil action or to a criminal prosecution under any legal action under the Act or any other written law to which the licence does not authorize the holder.

Authorization to use works owned by another person

35.—(1) Any applicant intending to use works owned by another person shall obtain permission from the owner of the works to use the works.

(2) The Authority shall require satisfactory evidence that permission by the owner of the works has been granted to the applicant in accordance with (1) to use the works.

(3) Where, in the opinion of the Authority, monitoring and control of water use may be best achieved by issuance of separate licences to applicants sharing common works, the Authority shall cause issuance of separate licences or a supplementary licence as may be applicable.

(4) Any agreement between two parties regarding the use of permitted works shall be registered with the Authority for the purposes of enabling the Authority to evaluate the content of the agreement.

(5) Where, in the opinion of the Authority the public interest may best be served by the use of existing works, it shall order the owner of the works to make available the works to any applicant as long as the water use of the owner of the works is not adversely affected.

(6) An owner of the works shall be entitled to fair compensation for use of his works by the applicant.

Category of water resource use activities

36.—(1) The Authority may classify water use activities into different categories for the better management of the water resources and basic principles for classification.

(2) Details regarding the criteria applicable to each category of water use shall be determined by the Authority in consultation with the Catchment Management Committees and other relevant stakeholders.

(3) The details under subparagraph (2) may in order to reflect catchment differences, vary from one water body or catchment area to another in order to reflect catchment differences.

(4) The Authority may from time to time revise the criteria to reflect changing circumstances.

Approval of water use through notification by water user

37.—(1) Any person whose works or water use activity falls into a category which requires notification to the Authority shall, prior to construction or installation of works, of his water use activity, duly notify the Authority and pay the appropriate fee as specified in the Twenty Third Schedule.

(2) The Authority may grant approval in writing for the applicant to undertake the water use activity described in the application and limited by any conditions imposed on a category of water uses.

(3) The Authority may, after giving reasons, require the applicant in any category of water use to apply for a licence following re-assessment of the water quality, as specified in the Ninth Schedule in these Regulations, or on the basis of any other reasonable cause.

(4) Where there are changes to any particulars related to a water user or water use activity, a water user shall notify the Authority within twenty one days of the change in particulars.

(5) A person who fails to notify the Authority of the changes in sub-regulation (4) within the specified period commits an offence.

Maps to accompany applications

38.—(1) Every water use applicant shall submit to the Authority a map in a format contained in the Seventeenth Schedule acceptable to the Authority showing the water body, the location of the works, supply area, location of all authorizations currently held by the applicant relevant to the application and any other relevant details as may be required by the Authority.

(2) All significant points on the map shall be geo-referenced showing Universal Transverse Mercator (UTM) coordinates and zone with respect to the World Geodetic System (WGS84) datum.

Payment of application fees

39.—(1) For each complete application, a water user applicant shall pay appropriate application fee as prescribed in the Twenty Third Schedule before the application is processed by the Authority.

(2) Where an application duly made has not been determined within six months, the Authority shall refund the application fee to the applicant, together with the application, and a written explanation.

Requirement for site assessment report and technical report

40.—(1) The Authority may require the applicant to submit a Site Assessment Report or a Technical Report to the Authority to support his application containing the information specified in the Seventeenth Schedule.

(2) A Site Assessment Report or a Technical Report shall conform in substance to the appropriate form prescribed in the Seventeenth Schedule.

(3) A Site Assessment Report or a Technical Report shall be prepared by qualified water resources professional.

(4) In exceptional circumstances where it is demonstrated that an applicant is unable to use the services of a water resources professional in the preparation of a Site Assessment Report or any other technical report, the Authority may, at the request of the applicant, undertake the report preparation.

(5) The applicant requiring the services of the Authority in the preparation of the Site Assessment Report or any other technical report, shall be required to make a written request stating why the applicant cannot use water resources professional services at a fee as specified in the Twenty Third Schedule.

(6) Upon being satisfied that it is in the interest of the applicant for the Authority to undertake the preparation of the Site Assessment Report or any other technical report, the Authority shall undertake the preparation of the report provided that any water resources professional officer of the Authority who is involved in the preparation of the report shall not be involved in the evaluation of the same report.

(7) In the circumstances where a water resources professional of the Authority undertakes duties of preparing a Site Assessment Report or any other technical report, the report shall be valid for the purposes for which it was prepared.

Renewal of licences

41.—(1) A licensee may, at least ninety days before the expiry of the licence, apply to the Authority for the renewal of the licence.

(2) An application under subregulation (1) shall—

(*a*) be made in a form and manner determined in writing by the Authority;

(*b*) contain such information as the Authority may specify;

(*c*) be accompanied by the fee specified in the Twenty Third Schedule.

(3) The Authority shall, in considering an application referred to under this regulation, take into account the factors specified in regulation 24.

(4) Where the Authority is satisfied with the application for renewal, it shall renew the licence on such terms and conditions as the Authority shall determine.

(5) The Authority shall inspect the works before processing the application for renewal.

(6) The Authority may impose new or alter existing licence conditions as necessary in response to causes as stated in section 52 of the Act.

(7) Where the licensee does not apply for the renewal of the licence, the Authority shall, on expiry of the licence, initiate cancellation in accordance with section 50 of the Act.

Late submission

42. A licensee who makes a late submission of an application for the renewal of a licence shall only have the submission processed upon payment of a fee specified in the Twenty Third Schedule.

PART IV—SURFACE WATER MANAGEMENT, DEVELOPMENT AND ADMINISTRATION

Declaration a watercourse

43.—(1) The Authority may, with reasonable cause, declare after public consultation, a natural watercourse not to be a watercourse or a constructed channel to be a watercourse.

(2) Where a body of water has changed its course, the Authority shall—

(*a*) recognize the new course to be a watercourse and;

(*b*) require the original course to be retained as a flood channel.

Boundary of properties defined by a watercourse

44. If, owing to any natural events, authorized or unauthorized works being constructed on a water body, a body of water which constitutes the boundary of two or more properties ceases to flow between or to separate such properties or has changed into a new course, the boundaries of such properties shall, unless readjusted by mutual agreement between the parties concerned, remain as before.

Wetlands

45.—(1) Any portion of land in excess of one hectare which is naturally subject to seasonal or permanent flooding and has the ecological characteristics of a swamp or marsh shall be considered to be a wetland under these Regulations.

(2) The Authority may on a good cause, declare any portion of land less than one hectare as a wetland for purposes of water resources management and upon such declaration, shall cause to be published in the *Gazette* such declaration.

(3) A land owner or a legally authorized operator of the land on which a wetland is situated shall apply to the Authority for approval for any proposed or existing developments such as drainage, discharge into or construction that would affect, the wetland

(4) Whenever any proposal for the drainage and reclamation of a swamp involves the subsequent use by the applicant of all or any of the water conserved by the drainage or reclamation of such swamp, the applicant shall submit an application for a permit for the diversion, abstraction, storage or use of such water with a Hydrological Assessment Report and Environment Impact Assessment as specified in the Seventeenth Schedule hereto and the Environment Impact Assessment Guidelines, as the case may be.

(5) No works involving the drainage of a swamp shall deprive any lawful water user of reasonable access to water except by agreement or on payment of compensation, or on supplying water from other sources or by other means, and the applicant concerned shall submit to the Authority all plans and documents showing his proposals to provide such water user with access to water, and any agreements to this effect, and he shall, if his proposals include any works for supplying such water user with water, submit an application for a licence.

Allocation of water for irrigation

46.—(1) When allocating water for irrigation, the Authority shall give priority to smallholder irrigation.

(2) When considering aggregate water demand for smallholder irrigation, the Authority may declare by public notification for each catchment area or part thereof an upper limit for the allocation of water either in aggregate or for any one permit where the allocation is shared among more than one household.

Prior right to water for storage

47. The right to store water shall be subject to—

(*a*) prior right to its uninterrupted flow for so much as it is required for actual and beneficial use; and

(*b*) the obligations imposed under the Act.

Need for storage

48. The Authority may require a water use licence applicant to develop adequate storage in respect of his application for water use.

Classification of dams

49.—(1) The Authority shall classify dams according to the criteria detailed in Table 1 of the Fifth Schedule.

(2) In establishing the class of a dam the criterion resulting in the higher risk class will prevail.

Dam design

50. A dam shall be designed and supervised by the appropriate category of Qualified Professional as set out in Table 2, of the Fifth Schedule.

Dam construction

51. A dam shall be constructed by the appropriate category of contractor as set out in Table 3 of the Fifth Schedule.

Dam safety inspection

52.—(1) Every dam owner shall cause to be inspected his dam according to the criteria given in Table 4 in the Fifth Schedule and an Inspection Report prepared in accordance with the Seventeenth Schedule and submitted to the Authority.

(2) Compliance with dam inspection requirements shall be among the conditions to be considered before permit renewal is processed where dams are involved

(3) A licensee who has a licence to store or impound water in any body of water or the operator may, with the approval of the Authority, turn the water so stored into a natural watercourse, and may, subject to the water so stored being appurtenant to the land upon which it is to be utilized, and subject to the conditions of his licence authorizing the diversion or abstraction, at a point downstream of the point of storage, divert or abstract from the body of water into which the stored water is turned the quantity of water so turned, subject to such deductions for evaporation and seepage as the Authority may, from time to time, order.

Minimum net freeboard

53.—(1) The net freeboard for Class A dam shall not be less than 0.6 m.

(2) The net freeboard for Class B and C dams shall not be less than 1.0 m or as otherwise specified by the Authority on a case by case basis.

Minimum spillway design flood

54.—(1) The minimum acceptable return period for the design of a dam spillway is as shown in Table 5, in the Fifth Schedule hereto.

(2) The Authority may require a higher return period with respect to the conditions and risks associated with each site.

Release and use of stored water

55.—(1) A licensee, who has a licence to store or impound water in any body of water, or the operator , before turning water into a natural watercourse as aforesaid, shall give to the Authority and to all persons entitled to use water from any part of the body of water between the point of release of the stored water and the points of utilization of the said water such notice of the use of the body of water for the purpose aforesaid and such particulars regarding the time during which it will be turned into the body of water, the rate of discharge of the stored water and other matters as the Authority may, from time to time, require.

(2) No licensee, other than the licensee who releases the stored water as aforesaid, or the operator, shall divert or abstract any proportion of the flow of the body of water due to the water so released, nor shall any licensee or permit holder impound or store, except to such an extent as may be imposed upon him /her by the maximum capacity of his/her works for discharging the flow of the body of water through or around his/her works which abstract the

flow of the water, any proportion of the flow of the body of water due to the water so released commits an offence.

Compensation/ environmental flow

56.—(1) A licensee storing or retaining the flow of water by means of a dam or weir shall unless otherwise decided by the Authority, release at least 10% (Q90) as compensation/environmental flow into the watercourse downstream of dam or weir.

(2) Provided that where the normal flow of the body of water or watercourse is naturally by-passed around the reservoir, without any storage or arresting of the flow of the water being effected no such outlet works need to be constructed.

Dam design report

57.—(1) Any application for a licence to construct a Class A, B or C dam shall be accompanied by a Dam Design Report substantially as shown in the Seventeenth Schedule hereto, for approval by the Authority.

(2) The level of detail in the Dam Design Report will be dependent on the class of dam under consideration.

Dam construction progress report

58. A licence applicant, on commissioning the construction of a dam, shall submit a dam construction progress report at such time intervals determined by the Authority.

Dam completion and dam operation reports

59.—(1) On completion of construction, the licence applicant shall submit to the Authority a Dam Completion Report and a Dam Operation Report substantially as shown in the Seventeenth Schedule hereto, in conjunction with the Completion Certificate.

(2) Issuance of the licence is conditional upon approval of the Dam Completion and Dam Operation Report containing the details in the Seventeenth Schedule hereto by the Authority.

Notice to downstream

60.—(1) It is the responsibility of the operator of any dam to take adequate measures, at their cost as detailed within the approved Dam Operation Report to notify the Authority and persons downstream likely to be affected in the event of any discharge from the dam whether caused by dam failure, or intended releases from the dam that might result in damage downstream.

(2) Where an operator of a dam intends to make releases, he shall—

(*a*) take adequate measures, at his cost, as detailed within the approved Dam Operation Report, to protect persons, infrastructure and environment downstream likely to be affected in the event of any discharge from the dam caused by the releases; and

(*b*) give notice to the general public downstream in not more than forty eight hours before the releases.

(3) A person who fails to follow the steps detailed in the approved Dam Operation Report commits an offence.

Dam failure report

61.—(1) A licensee, operator or the person having the control of any dam, in the event of serious damage or failure, shall submit an interim Dam

Damage or Failure Report within three days, and a detailed Report substantially as prescribed in the Seventeenth Schedule to the Authority within twenty one days of the event.

(2) A person who fails to submit the Dam Damage or Failure Report within the prescribed period commits an offence.

Hydro power

62.—(1) Every licence to develop an amount of power less than the full hydro power potential of the site may be subject to special conditions if the Authority considers that the full power development of the site at a later date may be required.

(2) Where an existing licensee is unable or unwilling to enlarge his works to develop the full hydropower potential of the site, and it is considered by the Authority to be in the public interest to do so, the Authority may cancel the licence and authorize the works to be carried out by another person.

(3) Where the Authority has taken action under subregulation (2), the former operator shall be entitled to compensation by the new operator.

(4) For the purpose of ascertaining the hydropower potential or developed under any licence, the Authority shall have free access to all reports, plans and records and may request for any other information or data as required.

(5) A licence issued for hydropower purpose, shall at all times be subject to any enactment affecting the construction and operation of works for the supply of power therefrom.

Surface water database

63. The Authority shall maintain a surface water database from which data shall be accessible during normal office hours by any person on the payment of the prescribed fees prescribed in the Twenty Third Schedule.

Works associated with fish movement, protection and control

64.—(1) Where, in the opinion of the Authority and after consultation with Department responsible for fisheries, it is necessary for the free movement of fish upstream or downstream of any dam or weir on any body of water, the Authority may require a licensee or order a licensee to provide, at his cost in such dam or weir a fish pass or ladder or other structure, approved by the Authority, whereby fish may move freely up or down such a body of water.

(2) Notwithstanding anything contained in these Regulations, the Authority may, on the application of any person, authorize him to construct or erect in a body of water—

(*a*) works of a temporary nature which are designed solely for the purpose of improving the conditions of fish life or the facilities for fishing, in such body of water provided such works will not have the effect of raising the normal level of the body of water by more than one metre; or

(*b*) fish ladders or pass or other means of ingress and egress for fish provided such works do not cause any obstruction in the flow of such body of water.

Construction permit

65.—(1) A person who wishes to construct any works for the purpose of—

(*a*) impounding, damming, diverting or conveying any surface water, whether or not on or adjacent to a waterway; or

(*b*) draining any land to fit any motorized pump to the works,

(*c*) shall apply to the Authority for a construction permit as specified in the Sixth Schedule.

(2) The Authority shall not issue a licence to direct, impound, store or use any water in or from works in respect of which a construction permit is required unless a construction completion report is provided to the Authority as provided under subregulation (1).

PART V—GROUND WATER MANAGEMENT, DEVELOPMENT AND ADMINISTRATION

Drilling permit

66.—(1) A person who wishes to engage in the business of constructing boreholes shall apply to the Authority for a drilling permit in the format prescribed in the Sixth Schedule.

(2) A person who wishes to engage a driller under subregulation (1) to construct a borehole on his land for the purpose of—

(*a*) using water;

(*b*) recharging an aquifer; or

(*c*) monitoring and research

(*d*) fitting a motorized pump to a borehole,

(*e*) exploration,

shall apply to the Authority for a construction permit in the Sixth Schedule hereto;

(3) Where any borehole is intended to be equipped with a motorized pump, the application shall be accompanied by a hydrogeological assessment report substantially conforming to the appropriate report prescribed in the Seventeenth Schedule.

(4) Before any borehole is replaced, deepened or widened, an owner of the borehole, or his duly authorized representative, shall file with the Authority an application for authority to carry out such replacement, deepening or widening of an existing borehole, for any water use category.

(5) Where any borehole encounters, in the course of drilling, a collapsed, loss of tools, or other associated drilling problems, (hereinafter referred to as downhole problems) but exclude a dry borehole, the owner of such borehole well shall drill, without further reference to the Authority, a replacement borehole, whose site shall not be more than fifteen metres, from the previously approved site.

(6) Before any borehole is drilled, after encountering downhole problems, is moved to a new site of more than fifteen (15) metres from the

previously approved site, the owner of the borehole, or his/her duly authorized representative, shall file with the Authority an application for authority to move to the new site.

(7) An application referred to under subregulation (1), (2) or (3) shall be accompanied by the appropriate application fee specified in the Twenty Third Schedule.

(8) Any person who contravenes the provisions of this regulation commits an offence.

Classification of boreholes

67. The Authority may, declare any class of boreholes or class of works to be a class to which regulation 66 shall not apply and shall cause such declaration to be published in the *Gazette*.

Procedures to be taken into account when considering an action

68.—(1) The Authority or a person authorized, in writing, by the Authority may—

(*a*) enter and inspect any land or equipment, in connection with the application;

(*b*) require an applicant to provide such further information as the Authority may consider appropriate;

(*c*) require an applicant, at his cost, to give public notice of the application in such manner as the Authority may specify; and

(*d*) require the applicant to invite submissions on the application, in the notice given under paragraph (*c*) within a specified period.

(2) The Authority shall, before approving the application under regulation 66, have regard or take into account, among other things—

(*a*) whether the applicant has adequate equipment which is in good condition to enable the applicant to undertake the work in respect of which the application is made;

(*b*) whether the applicant has at least two employees on a permanent basis who possess technical qualifications which are necessary for the applicant to undertake the work in respect of which the application is made;

(*c*) the previous experience of the applicant with respect to similar work;

(*d*) the professional reputation of the applicant; and

(*e*) the results of any inspection carried out under subregulation (1) (*a*).

(3) The Authority may, after consideration of subregulations (1) and (2), approve or reject the application.

Grant of permit

69.—(1) The Authority shall, after approving the application under regulation 66, grant a drilling permit or construction permit for a period of twelve months.

(2) The permit referred to under subregulation (1) shall be in Form C3 or C4 prescribed in the Sixth Schedule and shall be issued on such conditions as the Authority may specify.

(3) In addition to the provisions of subregulation (2), a holder of a drilling permit shall comply with the provisions of regulation 70 and any borehole construction specifications specified by the Authority.

(4) In addition to the provisions of subregulation (2), the holder of a construction permit shall comply with regulation 72 and any construction specifications for the types of structures specified by the Authority.

(5) A permit granted under this regulation may be renewed annually.

Extra conditions attched to drilling permit

70.—(1) A holder of a drilling permit shall—

(*a*) keep a written report of each borehole constructed containing the information specified in the Seventh Schedule; and

(*b*) within the time determined by the Authority, in each year, provide the Authority with a record of all the work that has been undertaken under the drilling permit during the preceding ninety days, which shall be in such form and contain such information as the Authority may specify,

(2) The Authority may attach any or all of the following conditions to a permit—

(*a*) additional works or measures to be undertaken for the protection of other aquifers for the maintenance of the flow of water;

(*b*) requiring samples of materials excavated from the borehole and of water encountered in the borehole at the time of the excavation to be taken and given to a specified authority; and

(*c*) requiring all or any part of the works to be carried out by or under the direction of the person holding a drilling permit.

(3) A person shall not direct, impound, store, convey or use any water, or attach any motorized pump to any works in respect of which a construction permit is required unless a permit for that purpose has first been issued under these Regulations.

Completion report

71.—(1) A holder of a construction permit shall, within ninety days of completion of any works, provide the Authority with a construction completion report in respect of those works, which shall—

(*a*) be in a form specified in the Seventh Schedule hereto;

(*b*) include plans and drawings of all works as constructed; and

(*c*) contain such other information as the Authority may, in writing, specify.

(2) The Authority shall not issue a drilling permit unless a construction completion report is provided to the Authority as provided under subregulation (1).

72.—(1) The holder of a drilling permit or construction permit and plans shall, at all reasonable times, allow a person authorized in writing by the Authority to do all or any of the following— Access to data and plans

(*a*) inspect any borehole constructed or being constructed under a permit issued under this Part;

(*b*) inspect any construction works carried out or being carried out under a permit issued under this Part;

(*c*) inspect and take copies of any plans or drawings of the works; or

(*d*) inspect and take copies of any written journal which the holder of a permit may be required to keep by the Authority.

(2) A person who obstructs or refuses the Authority or a person authorized by the Authority to carry out any of the duties specified in sub-regulation (1) commits an offence and shall, on conviction, be liable to the penalty as specified in the Twenty Third Schedule.

73. The Authority shall cancel any permit issued under this Part where the holder of the permit— Cancellation of permit

(*a*) fails to comply with any provision of these Regulations or any conditions attached to the permit;

(*b*) fails to provide any information required to be provided to the Authority or fails to provide the information in the prescribed form; or

(*c*) is convicted of an offence under the Act or these Regulations.

74.—(1) For the regulation of the groundwater development, the Authority shall determine in the allocation plan for a given aquifer or part thereof, the spacing of boreholes to be equipped with motorized pump and will be guided by— Regulation of ground water development

(*a*) existing borehole spacing;

(*b*) individual aquifer characteristics, including water quality;

(*c*) existing aquifer use; and

(*d*) existing bodies of surface water.

(2) The allocation plan shall be available and accessible to the public during normal working hours from any office of the Authority.

75.—(1) All new boreholes, to be equipped with motorized pump, shall be subjected to test pumping. Borehole pumping test

(2) Test pumping shall comprise a continuous and constant rate pumping test of not less than twenty-four hours duration and recovery duration of not less than one (1) hour, or as otherwise stipulated by the Authority.

76. All boreholes to be equipped with motorized pump shall be constructed under the supervision of a qualified water resource professional. Supervision of works

Artificial ground water recharge

77.—(1) A person shall not undertake to construct works for the purposes of conducting the artificial groundwater recharge of an aquifer, whether or not in a groundwater conservation area, unless such a person has been duly authorized by the Authority so to do.

(2) Any person applying for the necessary authority in compliance with subregulation (1) shall give such particulars relative to his application as the Authority may require, and the Authority may, after consideration of the application, grant such authority on such conditions as it may deem necessary or refuse the application.

(3) Any person contravening the provisions of this regulation commits an offence and shall, on conviction, be liable to the penalty as specified in the Twenty Third Schedule.

Monotoring data

78. The Authority may, from time to time and in carrying out its responsibilities towards groundwater resources management, require any person or entity, permit holder or operator, to provide it with abstraction, water levels, water quality or any other specified information within a reasonable time or on a regular basis.

Groundwater database

79. The Authority shall maintain a groundwater database from which data shall be accessible during normal office hours to any person on the payment of the appropriate fees prescribed in the Twenty Third Schedule.

PART VI —WATER QUALITY MONITORING AND POLLUTION CONTROL

Water quality standards

80. The Minister may, after consultation with relevant public authorities as per the Act, prescribe the standards for treated effluent before discharge into water bodies or on land.

Prohibition on discharge of effluent

81.—(1) A person shall not discharge effluent on land or into water bodies contrary to the standards established under regulation 80 and as read with regulation 83, unless he has a permit in the prescribed in Tenth Schedule issued by the Authority.

(2) A person granted a permit under subregulation (1) shall—

(*a*) ensure that the effluent discharged conforms to the maximum permissible limits established under regulation 80; and

(*b*) adhere to any other conditions as the Authority may specify.

(3) The Authority or a person authorized by the Authority may issue guidelines on the type of industry or establishment affected and the method of treatment of effluent so as to ensure assimilation by the receiving water body or land into which the effluent is discharged.

(4) A person who contravenes this regulation commits an offence and shall, on conviction, be liable to the penalty as specified in the Twenty Third Schedule or as specified in the regulation 73 or both as the case may be.

Effluent discharge permit

82.—(1) A person—

(*a*) to whom a works approval has been issued; or

(*b*) who is or proposes to be—

(i) the owner or operator of any industry or trade specified in the Eighth Schedule which discharges or which will discharge effluent into a water body or on land;

(ii) responsible for producing, storing, discharging or disposing of any effluent or any effluent containing a substance specified in Part C of the Eighth Schedule;

(iii) engaged in any trade specified in Part C of the Eighth Schedule; or

(iv) the owner or occupier of any premises specified in Part C of the Eighth Schedule from which effluent may come into contact with water, directly or indirectly,

shall apply to the Authority for an effluent discharge permit.

(2) Any person who contravenes this regulation commits an offence and shall, on conviction, be liable to the penalty prescribed under Section 147 of the Act.

Effluent discharge into any water body

83.—(1) A person shall not—

(*a*) discharge effluent into a water body without a valid discharge permit issued by the Authority;

(*b*) discharge any effluent, which does not meet the effluent quality requirements stipulated in the effluent discharge permit.

(*c*) generate and discharge effluent onto land or into any water body without compliance with an Effluent Discharge Management Plan containing the details specified in the Seventeenth Schedule hereto approved by the Authority; or

(*d*) discharge effluent from a sewage treatment plant, trade or industrial facility into any water body without a calibrated flow measuring device approved by the Authority.

(2) The right of a permit holder or his authorized operator, to discharge effluent, shall be exercised in accordance with the conditions in his permit and shall be limited to the quality of effluent, as stipulated in the permit.

(3) Any person who contravenes this regulation commits an offence and shall, upon conviction, be liable to a penalty as specified in the Twenty Third Schedule.

Application for effluent discharge permit

84. An application for an effluent discharge permit under regulation 82 shall—

(*a*) be in Form H set out in the Eighth Schedule;

(*b*) contain such information as the Authority may determine; and

(*c*) be accompanied by the relevant application fee specified in Twenty Third Schedule.

Advertisement of applications

85.—(1) The Authority—

(*a*) shall at a minimum of two separate occasions publish, in a newspaper of general circulation in the area to which the application relates, a notice summarizing the nature of any application received under regulation 84;

(*b*) may give such other public notice of the application as the Authority considers appropriate in the circumstances;

(*c*) may give written notice of the application to any person whom the Authority considers may be adversely affected by the discharge of effluent to which the application relates; and

(*d*) shall invite submissions on the application in any notice given under this regulation within thirty (30) days of the date of the notice or such longer period as the Authority considers appropriate in the circumstances.

(2) An applicant shall be responsible for the expenses incurred under subregulation (1).

Additional information

86. The Authority or a person authorized by the Authority may—

(*a*) require an applicant to prepare and submit plans or further information to support any application made under regulation 83; and

(*b*) enter any land to which an application relates and undertake any investigations that are necessary for considering the application.

Effluent quality requirements

87.—(1) The Authority will be guided by the following criteria, in determining the effluent quality requirements for each application for an effluent discharge permit—

(*a*) the capacity of the receiving water body to assimilate the effluent without violating the water quality objectives for that water body;

(*b*) the toxicity and persistence of the pollutant(s);

(*c*) any other criteria as determined from time to time by the Authority;

(2) The Authority may issue guideline standards for effluent discharge as contained in the Ninth Schedule.

Consideration of application

88.—(1) The Authority shall, in considering an application made under regulations 82 and 84, have regard to the following—

(*a*) the existing authorized and projected quality of water in, up and downstream of the discharge point;

(*b*) any adverse effect which the discharge of effluent is likely to have on—

(i) the existing authorized uses of water;

(ii) possible future beneficial uses of water;

(iii) any aquifer or waterway, including effects on land which forms the waterway or its surroundings;

(iv) the environment, including the riverine and riparian environment; and

(v) in-stream uses of water;

(*c*) the minimum water quality standards and effluent discharge standards established under the Environment Management Act; Cap. 60:02

(*d*) any guidelines or conditions relating to effluent discharge permits issued by the Authority under regulation 88 or the Act;

(*e*) Government policy on environment management and conservation;

(*f*) any submissions made under regulation 86(1)(*a*);

(*g*) the comments of any public authority to which an application is referred under section 95 of the Act and any special conditions that are proposed by that public authority; and

(*h*) any other matter which the Authority considers relevant to the application.

(2) Without prejudice to subregulation (1), the Authority shall not approve an application for effluent discharge permit in respect of any premises for which a works approval has been granted unless the Authority is satisfied that the works have been completed in accordance with the works approval.

(3) The Authority may, where an application for effluent discharge permit is received in respect of any premises for which a works approval has not been granted—

(*a*) by notice in writing specify any additions, alterations or modifications to the premises which shall be completed to the satisfaction of the Authority before the application is reconsidered; or

(*b*) grant the effluent discharge permit subject to the condition that any additions, alterations or modifications to the premises specified in the permit shall be made within the time specified in the permit.

(4) The Authority shall not, when granting an effluent discharge permit in respect of any land, attach conditions relating to the execution of additions, alterations or modifications to the premises which are any more onerous for the applicant than any condition previously attached to a works approval.

Effluent discharge management plan

89. Each application for an effluent discharge permit shall contain an Effluent Discharge Management Plan substantially as prescribed in the Seventeenth Schedule.

Approval of application

90.—(1) Where the Authority is satisfied that the effluent discharged into the water body meets the limits stipulated by the Authority, the Authority may approve the application and a permit shall be duly issued under regulation 92 and contained in the Tenth Schedule stating any conditions to be met.

(2) The permit issued under subregulation (1) may provide for the requirement of an environmental impact assessment or provide restrictions on the use of wetlands.

(3) The Authority shall not when granting an effluent discharge permit in respect of any land attach conditions relating to the execution of additions, alterations or modifications to the premises which are any more onerous for the applicant than any condition previously attached to a works approval.

(4) A holder of a permit under these Regulations shall apply to the Authority to cancel and reissue a permit so as to amend the terms of the original permit due to the subsequent changes or modifications in operation which lead to relevant or significant changes in discharges.

(5) The application under subregulation (4) shall be in accordance with the Eleventh Schedule.

(6) The Authority shall consider the applications under subregulations (4) and (5) and such other relevant information and make a decision whether or not to amend the terms.

Applicant to be notified of Authority's decision

91.—(1) The Authority shall, in writing, notify any applicant of any submission made by any person under regulation 85(1)(*d*) and that of any public authority to which an application has been referred under section 95 of the Act, of its decision.

(2) Where the Authority approves an application, the Authority shall set out in the notice given under subregulation (1) any condition to be attached to the effluent permit.

(3) If the Authority rejects an application, the Authority shall set out in the notice referred to under subregulation (1) the reasons for rejecting the application.

Issuance of effluent discharge permit

92. Upon inspection and approval of the authorized effluent discharge works, the Authority shall issue a water effluent discharge permit and shall append the necessary conditions including limits to and monitoring frequency for volume and quality of effluent discharge.

Effluent discharge records

93.—(1) Any person discharging effluent shall maintain records of effluent discharge in terms of quantity and quality in accordance with the Effluent Discharge Management Plan approved by the Authority.

(2) The effluent discharge records shall be submitted to the Authority, on a quarterly basis.

(3) The effluent discharge records shall be maintained and shall be available for inspection by the Authority.

Transfer of an effluent discharge permit

94.—(1) A person who becomes the owner or occupier of any premises in respect of which an effluent discharge permit exists shall continue to discharge effluent from the premises in accordance with the conditions and terms spelt out in the effluent discharge permit for a period of ninety days from the date on which that person becomes the owner or occupier of the premises.

(2) After the expiry of the period referred to in subregulation (1), the permit shall cease to exist and the person who becomes the owner or occupier of the premises shall re-apply to the Authority in accordance to the Eighth Schedule.

Breach of conditions

95.—(1) The Authority may, at any time if any condition attached to an effluent discharge permit is not observed, give notice in writing to the holder of the permit requiring the permit holder to take such action in relation to the effluent within such time as the Authority may specify in the notice.

(2) Where the holder of an effluent discharge permit fails to comply with the notice referred to in subregulation (1) within the time specified in that notice or such longer time as the Authority may allow, the Authority may cancel the effluent discharge permit and enter the premises to which the effluent discharge permit relates and take such action as may be necessary to prevent any further discharge of waste which may come into contact with water directly or indirectly.

General obligation to mitigate pollution

96.—(1) Every industry, establishment or holder of an effluent discharge permit shall comply with internationally recognized best practices and cleaner production systems including zero discharge, installation of pre-treatment equipment and or facility for the treatment of effluent discharge emanating from the industry.

(2) An installation made under subregulation (1) shall be based on the best practicable means, environmentally sound practice or any guidelines as the Authority may determine.

Accidental discharge

97.—(1) An owner or person responsible for the management of an industry or establishment referred to in regulation 83(1) shall, in the case of an accidental discharge, immediately, and in any case within twenty-four hours after the accidental discharge, report the matter to the Authority using the fastest available means.

(2) A person who fails to comply with subregulation (1) commits an offence and shall, upoon conviction, be liable to a penalty prescribed in the Twenty Third Schedule.

(3) The provisions of subregulation (1) shall not exempt the owner or person from taking immediate action to mitigate the damage resulting from the accidental discharge.

(4) Without prejudice to the provisions of the Environment Management Act, the Authority shall establish disaster preparedness measures for accidental discharges. Cap. 60:02

Spillage

98.—(1) A person shall not willfully or deliberately allow any substance to spill out into any water resource or onto land where such spillage may or is likely to contaminate any body of surface water or groundwater.

(2) In the event of accidental spillage where such spillage may or is likely to contaminate anybody of surface or ground water, the owner of the spilt substance shall immediately inform the Authority of the accident and take immediate and adequate measures to prevent spread of the spillage and its likely adverse effects to water resources.

(3) The Authority shall, upon receiving information on spillage, take measures to notify the public of the spillage and cause action to be taken to deal with the spillage within the period of twenty four hours.

(4) The costs incurred by the Authority in regard to notifying the public and dealing with the spillage shall be recoverable from the owner of the spilt substance;

(5) Any owner of a spilt substance who fails to inform the Authority immediately after spillage or fails to take immediate action to prevent spread of the spillage and its likely adverse effects to water resources, commits an offence and shall, upon conviction be liable to penalty specified in the Twenty Third Schedule and under the Act.

Sampling and analysis effluent

99.—(1) An officer or inspector or an analyst designated under the provisions of the Act may at any reasonable time enter any premises and take samples, analyze and examine materials used in the activity for which an effluent permit was applied.

(2) An analyst designated under subregulation (1) shall comply with the guidelines issued by the Authority under these Regulations.

Water quality monitoring

100.—(1) The Authority shall inspect and sample any sources of water pollution.

(2) The Authority shall not be required to give prior notice when inspecting and sampling any services of pollution under subregulation (1)

(3) Any person, who obstructs, constrains or prevents an inspector who has sufficiently identified himself from undertaking a pollution control inspection commits an offence and shall, upon conviction, be liable to the penalty as specified in the Twenty Third Schedule.

Water quality and effluent discharge database

101. The Authority shall maintain a water quality database that will include effluent discharge data which shall be accessible during normal office hours by any person on the payment of the prescribed fees listed in the Twenty Third Schedule.

Pollution control enforcement

102.—(1) In the event that an inspector intends to take a water or wastewater quality sample for purposes of prosecution, activities listed in the Thirteenth Schedule shall apply.

(2) The prescribed procedures shall not prevent the Authority from installing automatic water quality monitoring and sampling equipment for any purpose as desired by the Authority.

Non-point source pollution

103. The Authority may, with good cause, order any person or entity being the owner, occupier or having jurisdiction over a piece of land to put in place adequate measures for the safe disposal of solid, liquid or other wastes including agricultural chemicals present on the land which may form a risk to the water resource quality.

Effluent discharge fees

104.—(1) A holder of an effluent discharge permit shall pay an annual effluent discharge fee as may be determined by the Authority.

(2) The fee referred to in subregulation (1) of this regulation shall be determined having regard to—

(*a*) the volume, characteristics and components of effluent to be discharged; and

(*b*) the principle that the true and total costs of environmental pollution should be borne by the polluter.

Water quality and effluent discharge register

105.—(1) The Authority shall keep a register of—

(*a*) all applications made under regulation 84; and

(*b*) every works approval or effluent discharge permit granted.

(2) The register shall contain the information specified in the Nineteenth Schedule and such other information as the Authority may consider appropriate.

(3) The Authority may, subject to subregulation (2), keep the register in any form the Authority considers appropriate.

(4) The Authority may transmit the record kept under this regulation to the Director of Environmental Affairs Department.

Access to the register

106.—(1) Subject to subregulation (2), the Authority shall make available to any person a copy of any entry in the register upon the request of that person and upon payment of the fee specified in the Twenty Third Schedule.

(2) In making an application for a works approval or an effluent discharge permit, the applicant may apply in the format set out in the Fourteenth Schedule the Authority not to make any portion of a relevant entry in the register public.

(3) The Authority may only agree not to make any portion of an entry in the register public if the applicant satisfies the Authority that—

(*a*) the relevant portion of the entry would potentially reveal information to a competitor about the applicant's production process which would—

(i) not otherwise be available generally or to that competitor and

(ii) substantially interfere with the applicant's competitive position in the market; and

(*b*) the potential disadvantage to the applicant clearly outweighs the public's interest in having access to that relevant portion of the entry.

Recognized water quality labolatory

107. Any water quality laboratory shall be recognized if it is registered by the Authority or any other recognized and accredited authority.

Part VII—Water Works

Inspection of works prior to, during and post, construction

108. The Authority may undertake an inspection or series of inspections of the site associated with a proposed, ongoing, existing or abandoned point of water works.

Temporary works

109.—(1) Any person constructing temporary works shall apply for a permit from the Authority to divert, abstract, impound, obstruct, store or use water to such extent only—

(*a*) as may be necessary for such construction;

(*b*) in such times and in such manner as to interfere as little as possible with the works of other operators; and

(*c*) to cause as little damage as possible to the property of any person and the environment.

(2) A person constructing works shall be liable for any interference or damage resulting from his works.

(3) All temporary works shall be removed by the responsible permit holder within a period of three months, or such other period as the Authority may specify, from the date of completion of the works authorized or from the date of expiry of the authorization (whichever is earlier):

Provided that any quarries, borrow-pits, excavations, cuttings, tunnels or other temporary works which cannot be economically rehabilitated or removed shall instead be rendered safe in the interests of health and property by fencing or such other measure as the Authority may consider satisfactory.

(4) Where any temporary works are not removed, rehabilitated or rendered safe within the prescribed period, the Authority shall issue an order for the removal, rehabilitation or rendering safe of the works.

(5) Any person who fails to comply with the order under sub-regulation (4), commits an offence.

Abandoned works

110.—(1) Where the Authority has cancelled a licence or permit, the licensee or the permit holder shall not be relieved of liability for any damage resulting from the works constructed, operated or maintained under the cancelled licence or permit, or from any defect or insufficiency in the works.

(2) The Authority may, within one hundred and eighty days of the cancellation or expiry of a licence or permit, serve upon the permit holder or former licensee or permit holder whose licence or permit has been cancelled or expired, an order for the disposal of all or any portion of the works previously used under the authority of the authorization or permit.

(3) Any person who fails to comply with the order served under subregulation (1), commits an offence.

PART VIII—CONDITIONS OF AUTHORIZATION, PERMITS AND APPROVED WATER USES

Compliance with the Environment Management Act Cap. 60:02

111. Where applicable, the Authority shall, require an applicant to show evidence of compliance with the provisions of the Environment Management Act.

112.—(1) Within two years of coming into force of these Regulations, every authorized major water user, whether for water abstraction or effluent discharge, shall be required to have installed a controlling device and measuring device for the accurate measurement of water abstracted, obstructed or diverted and for effluent discharged, as the case may be. Controlling and measuring device

(2) An authorized water user shall inspect, or cause to be inspected, at such time intervals as may be necessary, any controlling or measuring device prescribed in his licence or permit in order to ensure that the quantity of water abstracted, diverted or stored, or effluent discharged is accurately measured.

(3) Every adjustable device or controlling device, including any sluice gate, valve or other works, where such device or work is used to control the quantity of water diverted, abstracted or stored, or effluent discharged shall be provided, by the licensee or permit holder, with a means of locking it sufficiently to prevent any unauthorized person from interfering with it.

(4) The keys of such locking device or works shall be produced forthwith to an officer of the Authority when so required.

(5) Where necessary the locking device can be in such way that the Authority and permit holder are present when opening.

(6) Any device used for the purpose of measuring abstraction or effluent discharge shall be able to be calibrated and such calibration results shall be made available to the Authority upon request.

(7) Calibration of the flow measuring device shall be done by the Authority or an agent of the Authority.

(8) Where there is doubt over the accuracy of a flow measuring device the Authority may require the accuracy of the device to be verified and where required, the device shall be recalibrated at the cost of the licensee or permit holder.

(9) A measuring device shall be substantially in the form of a calibrated meter for piped or pumped systems and a calibrated weir or flume for open channel abstraction or discharge systems, or any other appropriate device approved by the Authority.

(10) A controlling device shall be located at the point where the water is abstracted, diverted or the effluent discharged, as they case may be or at a point approved by the Authority.

(11) A measuring device shall be located at a point approved by the Authority.

(12) Where any authorized water user fails to comply with any order given under this regulation, the Authority may take such steps as it may consider necessary to execute the order, and any expenses incurred in taking such steps shall be recoverable as a civil debt from the water user or person upon whom such order is made.

113.—(1) Notwithstanding the quantity of water granted under license, a licensee shall not abstract or divert more water from any waterbody or Limitation of flow or quality

waterbodies than can be beneficially used by him in the time being in accordance with the terms of his licence.

(2) Having regard to the priority of the purpose for which the water is granted, a licensee shall, on being so directed by the Authority—

(*a*) abstract, impound, or divert the quantity of water which may be necessary for his purpose at such times and in accordance with a schedule of abstraction that encompasses all other licensees on the same body of water, or other body of water as may, in the opinion of the Authority, secure the most equitable use of water; or

(*b*) discharge the quantity of water in accordance with a schedule of releases that encompasses all other licensees on the same body of water, or other body of water, as may, in the opinion of the Authority secure the most equitable use of water.

Collection and submission of abstraction, water quality and effluent data

114.—(1) Each licensee or permit holder shall maintain a record of the daily abstraction or effluent discharge as the case may be, in cubic metres per day, made by him in accordance with the Twenty Sixth Schedule.

(2) The record shall state the licence or permit number, date and volume of abstraction or discharge.

(3) The records for abstraction or discharge for the preceding twenty four months shall be available for inspection by the Authority.

(4) The Authority may require an applicant for a licence for abstraction and water use, or applicant for permit for effluent discharge or the renewal thereof, to take water or wastewater quality samples and cause the samples to be analyzed at his cost in a water quality laboratory approved by the Authority.

Storage

115. The Authority may require an applicant for water use for any purpose to develop adequate storage facilities such that abstraction is not undertaken from normal flow or during periods of time that the Authority may impose restrictions.

Air line

116.—(1) A permit applicant or permit holder, unless exempted by the Authority, shall install an air line in the borehole, such that the measurement of water levels is possible by the Authority or any authorized person.

(2) A person who does not comply with subregulation (1) commits an offence.

PART IX—WATER AND EFFUENT CHARGES, FEES AND PENALTIES

Water and effluent charges and fees

117.—(1) A person in possession of a licence or who is required to have a licence for water use or a holder of a permit, shall pay to the Authority water use charges on the basis of the water abstracted, diverted, obstructed or used including energy derived from a water resource at the appropriate rate as set out in the Twenty Third Schedule.

(2) A person in possession of consent to discharge effluent or who is required to have a permit to discharge effluent shall pay to the Authority fees

pertaining to the discharge of effluent on the basis of the volume of effluent being discharged at the appropriate rate as set out in the Twenty Third Schedule.

(3) The Minister, on the advice of the Authority may review the fees and charges from time to time.

(4) A licensee or permit holder may with the permission of the Authority, make payment to the Authority by monthly instalments.

Variation of water and effluent charges

118. In reviewing the water and effluent charges, the Minister shall take into account—

(*a*) inflation rate;

(*b*) cost of managing the water resources and water catchment areas;

(*c*) the use of water charges as a tool for water demand management;

(*d*) the use of water as a social and economic good; and

(*e*) any other criterion that the Authority may consider appropriate.

Self assessment of water used

119.—(1) A licensee or any person who is required to have a valid licence shall make a fair assessment of the quantity and quality of water used by him with respect to each licence.

(2) A licensee shall submit to the Authority his assessment of water used with supporting records and calculations.

(3) Where a licensee does not submit a fair assessment of the quantity of water used by him, the Authority shall make a fair estimate of the quantity of water used.

(4) In making this assessment, the Authority shall be guided by the allocation in the licence and by observations and evidence of water use activities.

(5) Where the assessed quantity of water used as determined by the water user or by the Authority is twenty-five percent more or less than the permitted allocation taking into account seasonal variations, the Authority may re-evaluate and vary the permitted allocation.

(6) Where the licensee and the Authority fail to agree on the assessment of the quantity of water used, the opinion of the Authority shall prevail and any payment due shall be made.

(7) If, after payment under subregulation (6), the licensee is dissatisfied with the Authority's assessment, he may appeal against the assessment in accordance with section 142 of the Act.

Time limitations on arrears

120.—(1) Where the Authority discovers that a licensee, a person who is required to have a licence or permit holder, who is obliged to pay water use charges from the coming into force of these Regulations and who has not done so, then it shall be entitled to charge arrears, for a period not exceeding twelve (12) months.

(2) Where the Authority discovers that a licensee or permit holder, has under-declared his water use, from the coming into force of these Regulations, then it shall require the licensee to pay for the under declared water use in arrears.

Water resources conservation charge

121. An additional five percent (5%) shall be added to the water use charges for any water abstraction or diversion within a groundwater conservation area, water area or protected area under the Act to cover for the cost of greater management required for such areas.

Penality for over-abstraction

122. Where the water abstracted exceeds the permitted amounts by over five percent (5%), the excess shall be charged at a penalty rate as prescribed under Twenty Third Schedule.

Incentive for flood water storage

123.—(1) Any person in possession of a licence who has created and uses flood water storage facilities shall be entitled to a discount on water use charges.

(2) The value of the discount shall be a maximum of ten percent in the case of storage that equals or exceeds ninety times the daily water demand and shall otherwise be calculated on a pro rata basis.

Penalty for lack of measuring device

124. Where the assessment of the water used is not based on continuous measurement by means of a calibrated and appropriately sealed flow measuring device, then a penalty of ten percent shall be charged on the full amount of water used.

Appointment of revenue collection agents

125. The Authority may appoint agents to collect revenue of the authority shall pay the costs of the services rendered.

Modes of payment of water use or effluent charges

126. Water use or effluent charges may be paid directly to the Authority or where applicable to a revenue collection agent.

Interest for late payment

127. Late payment of water use or effluent charges shall attract a simple interest charge of two percent per month until the whole amount is paid in full.

Failure to pay

128.—(1) A person who fails to pay the appropriate water use charges in breach of the conditions of a licence or permit shall be liable to revocation of the licence or permit, as the case may be.

(2) The Authority may within fourteen days, following notice given to the licensee or permit holder, suspend, initiate the cancellation process or vary, in whole or in part, the licence or permit if the licensee or permit holder fails to pay in full the water use charges for any one payment for a period of one hundred twenty days after the due date.

(3) Any licensee or permit holder whose licence or permit has been suspended, cancelled or varied due to non-payment shall not reapply for a lift of suspension, or a new permit or amendment until the outstanding amount and any associated cost is paid in full.

(4) An application for renewal of a licence or permit renewal or amendment of an existing licence or permit shall not be considered if the licensee or permit holder is in arrears regarding any payments.

PART X — CONSERVATON OF RIPARIAN AND CATCHMENT AREAS

Determination of riparian land

129.—(1) "Riparian land", shall not imply a change of ownership but imposes management controls on land use for water resource quality as defined in these Regulations.

(2) A person shall not cultivate or undertake any development activities within a minimum of 15m from the highest ever or 100 year flood level or as may be determined by the Authority from time to time, on either side of the river.

(3) A person shall not carry out any activity below the 477 masl contour line along Lake Malawi, that is likely to have adverse impacts on the Lake, without a licence issued in accordance with the Act.

(4) For the purpose of this regulation "highest ever or 100 year flood" means a flood that on average occurs once in every one hundred years.

Demarcation of riparian land

130.—(1) The Authority may, for good reason, demarcate the riparian boundary of any water course or body on any land.

(2) A riparian land owner may request the Authority to demarcate the riparian boundary on his land, at the cost of the Authority.

(3) In demarcating the riparian boundary, the Authority shall require the land owner to place permanent recognizable beacons at his cost at sufficient interval to adequately represent the line of the riparian boundary.

Proscribed activities on riparian land

131.—(1) Unless authorized by the Authority a person shall not undertake the activities listed in the Fifteenth Schedule on riparian land.

(2) A riparian land owner or user may, on showing good cause, request the Authority in writing to undertake a proscribed activity.

(3) The Authority shall respond in writing within thirty days stating its decision.

(4) Any person who undertakes any of the proscribed activities on riparian land without approval by the Authority commits an offence.

Orders related to riparian land

132.—(1) The Authority may, by an order, instruct a riparian land owner or user, at his cost, to develop and implement a Soil and Water Conservation Plan containing the details specified in the Seventeenth Schedule.

(2) The Authority may, by order, instruct a riparian land owner or user, to desist from any proscribed activity or to improve the condition of the riparian land in the interests of meeting the water quality objectives.

(3) In requiring a riparian land owner or user to improve the condition of the riparian land, the Authority may facilitate support to undertake the required activities.

(4) Where the riparian landowner or user fails to comply with an order to develop a soil and Water Conservation Plan, the Authority may cause such a plan to be developed.

(5) The Authority may recover the cost of developing such a plan from the person or persons who have failed to comply with the order.

Soil and water conservation plan

133.—(1) For the purposes of conserving the catchments and the riparian areas, the Authority may state and require by order or under a permit or licence a person to prepare and conform to a Soil and Water Conservation Plan.

(2) In requiring a Soil and Water Conservation Plan, the Authority shall be guided by the criteria shown in the Seventeenth Schedule.

(3) The Soil and Water Conservation Plan may be developed by the Authority, land owner, land user, or association for water users in consultation with the officer(s) in charge of agricultural and or environmental activities for the area.

(4) The Soil and Water Conservation Plan shall substantially follow the format prescribed in the Seventeenth Schedule.

(5) Where the opinion of the Authority, a land owner or user fails to comply with an approved Soil and Water Conservation Plan, the Authority may cause to be rectified, constructed or maintained sufficient soil and water conservation measures for the purposes of conserving water resource quality conditions.

(6) The Authority may recover the cost of these measures from a person or persons who has defaulted to comply with the Soil and Water Conservation Plan.

(7) Failure to comply with an approved Soil and Water Conservation Plan may be considered by the Authority as a basis for rejecting, suspending, cancelling or varying a water use licence.

(8) Any person who fails to comply with the Soil and Water Conservation Plan commits an offence.

PART XI — CATCHMENT MANAGEMENT STRATEGIES

Establishment of catchment management strategies

134. Pursuant to section 32 of the Act, the Authority shall formulate Catchment Management Strategies for each catchment area which shall substantially follow the format laid out in the Seventeenth Schedule.

Guiding principles for catchment management strategies

135. In establishing the Catchment Management Strategy, the Authority shall be guided by the Act and the National Water Policy and the National Water Master Plan in force at a relevant time.

PART XII— PROTECTED CATCHMENT AREAS AND GROUNDWATER CONSERVATION AREAS

Process of identifyng catchment areas to be protected or designated as groundwater conservation areas

136.—(1) Pursuant to sections 25 and 37 of the Act, the Authority may identify a catchment area, part of a catchment area or water resource to be identified as areas to be protected or designated as groundwater conservation areas if the Authority is satisfied that doing so is necessary for the protection of the water resource and its multiple uses.

(2) When identifying a protected area or groundwater conservation area, the Authority shall be guided by the criteria shown in the Fifteenth Schedule.

(3) The Authority shall, after consultations in accordance with the Act, describe the boundaries of the proposed protected area or ground water conservation area for publication in the *Gazette*.

Measurement rules related to a protected catchment area or groundwater conservation area

137.—(1) The Authority shall, after consultations in accordance with the Act, develop management rules or plans that shall apply to each protected area or groundwater conservation area.

(2) The management regulations or plans shall cover the items listed in the Fifteenth Schedule.

Public consultation regarding catchment areas to be protected or designated as groundwater areas

138. The Authority shall undertake Public Consultation with respect to the establishment of areas to be Protected or designated as Groundwater Conservation Areas and the management rules or plans that shall apply with respect to these Areas.

Failure to comply with the management rules for a protected catchment area or groundwater conservation area

139. A person who fails to comply with the management rules or plans commits an offence.

PART XIII—THE WATER RESERVE

Composition of the reserve

140. The reserve in all instances shall comprise one element related to the quantity of the water resource and the respective probability associated with that quantity and a second element related to the quality of the water resource.

Reserve quantity

141.—(1) Where information is available from the water resource records and on reserve water demand, the Authority shall establish the reserve and shall be guided by the estimates of the quantity of water required to satisfy the reserve water demand.

(2) Where water resource records are not available or where there are significant ambiguities, the Authority shall establish the reserve and shall be guided by—

(*a*) ecological vulnerability;

(*b*) vulnerability of population dependant on that water resource;

(*c*) local observations with respect to the naturalized flows or water levels of minimum values observed during periods of prolonged droughts;

(*d*) where water flow is known to be normally perennial, then the reserve quantity shall be sufficient to ensure perennial flow; and

(*e*) consultations with associations of water users if such exists;

Information on, and protection of, the reserve

142.—(1) The Authority shall make the reserve information on water resources accessible to the public.

(2) Any person may make written report or complaint to any office of the Authority within the relevant catchment area or to the Executive Director if—

(*a*) he is unable to obtain sufficient water from the water resource for basic human needs as a result of the reserve being violated; and

(*b*) from his observations, he considers that the ecology is threatened as a result of the reserve being violated.

(3) Each complaint or report registered with the Authority in regard to a violation of the reserve quantity or quality shall be given a Complaint Number by the Authority which shall be used for purposes of monitoring the response to the complaint or report.

(4) Where a complaint or report has been registered with the Authority in regard to a violation of the reserve quantity or quality, the Authority shall take measures within forty eight hours to respond to the complaint or report.

(5) Measures that the Authority may take include but are not limited to activities listed in the Sixteenth Schedule.

(6) Within thirty days after each report of a reserve violation, the Authority shall prepare a report detailing the nature of the reserve violation and the measures taken to restore the reserve.

(7) Where the Authority considers that the reserve quantity and or quality is threatened, it shall cause to be placed in or near the water resource or in a public place frequented by the water users of a particular resource a legible signboard displaying the current condition of the resource and action required by the water users to safeguard the Reserve.

PART XIV—QUALIFIED PROFESSIONALS AND CONTRACTORS

Categories of qualified professionals

143. The categories of qualified professional shall be as listed in the Eighteenth Schedule.

144.—(1) A person shall not carry out the work of a qualified professional and a contractor shall not carry out the work of qualified contractor under these Regulations unless the person or contractor is licensed by the Authority. Registration and regulation of qualified profesisonal and contractor

(2) The Authority shall establish and maintain a Technical Advisory Committee at all times for the registration and determination of all matters regarding the conduct of qualified professionals and qualified contractors under these Regulations.

(3) The Technical Advisory Committee shall comprise nine members including the Chairperson all of whom shall be appointed by the Minister in consultation with the Authority.

(4) Membership to the Technical Advisory Committee shall comprise—

(*a*) a representative from the Department responsible for water resources;

(*b*) a representative from the Authority;

(*c*) a representative from the Department responsible for irrigation services;

(*d*) a representative from Environmental Affairs Department;

(*e*) a representative from one of the Water Boards;

(*f*) a representative from Malawi Energy Regulatory Authority;

(*g*) a representative from National Construction Industry Council; and

(*h*) two representatives who in their own right are qualified water professionals.

(5) The Authority shall set out administrative guidelines to govern the conduct of business of the Technical Advisory Committee, and such guidelines may be revised from time to time as necessary.

(6) No final decision on the application for registration or conduct of a qualified contractor or qualified professional under these Regulations shall be made except through a resolution of the Technical Advisory Committee.

(7) A final decision of the Technical Advisory Committee on the application for registration or conduct of a contractor or qualified water resources professional under these Regulations—

(*a*) shall be made within ninety days from the application date; and

(*b*) Shall be communicated to the concerned party within fourteen days from the date of the decision.

(8) Any qualified contractor or qualified professional aggrieved by the final decision of the Technical Advisory Committee may appeal against the decision of the Committee in accordance with section 142 of the Act.

145. The following persons only shall be entitled to apply for a qualified professional licence— Criteria for qualified professionals

(*a*) a person who possesses atleast a bachelors degree in a relevant field from any recognized institution and with at least five (5) years practical experience in the relevant profession; and

(*b*) a person who is a registered member of the relevant professional institution of that profession.

Application to be licenced as a qualified professional

146.—(1) Any individual who provides or is proposing to provide professional services related to water resources shall apply to the Authority for a licence as a qualified water resource professional under the appropriate area of specialization.

(2) Conditions for licensing with the Authority may change from time to time.

Need for professional interview

147. The Authority, after receipt of an application for a qualified professional licence, may require the attendance before it of the applicant, and may examine or question him on any matter relevant to his application.

Issuance of professional licence

148.—(1) Where the Authority is satisfied that the applicant is a qualified person to be licensed, it shall issue a licence for such period and on such conditions, as it may determine.

(2) A qualified professional is required to pay an annual licence fee as set out in the Twenty Third Schedule and payments shall be made to the Authority no later than the end of the third month in each calendar year.

(3) Failure to renew the licence fee is a breach of the conditions of the licence and shall result in the licence being suspended in which case the person may not practice as a qualified professional.

(4) A suspended licence may be reinstated after payment of all outstanding fees and penalties as prescribed in Twenty Third Schedule

(5) Failure to renew the licence for a consecutive period of three (3) years shall result in the licence being revoked.

Compliance with Professional Codes of Practice

149.—(1) The Authority shall develop Codes of Practice to bring industry practices in line with best practices.

(2) All qualified professionals shall comply with Codes of Practice developed under subregulation (1).

(3) The Codes of Practices shall be developed in consultation with the relevant professional bodies.

Register of qualified professionals

150.—(1) The Authority shall keep a register of all qualified professional licenses issued under these Regulations.

(2) The Authority shall, once in every year, publish in the *Gazette* and at least in one national newspaper with wide circulation, a list containing the names and addresses of all licensed qualified professionals.

(3) Every name deleted from the register shall be published in the *Gazette* and the newspaper.

(4) Each qualified water resource professional shall inform the Authority in writing within twenty-eight days of any changes in particulars associated with his licence.

(5) Failure to notify the Authority of any changes may result in disciplinary action, including suspension of the licence.

Complaint made against a qualified professional

151.—(1) A complaint in the format prescribed in the Twenty Fourth Schedule, may be made to the Authority against any person licensed as a qualified water resource professional under these Regulations if he—

(*a*) has become incapable of carrying out the work of a qualified professional;

(*b*) has become unfit, through any reason, to practice as a qualified professional; or

(*c*) has failed to comply with the conditions of his licence or any provisions of the Act, or of these Regulations.

(2) The Authority shall hold an inquiry within thirty days of the complaint being lodged, and if after such inquiry the Authority is satisfied that the complaint has been justified it shall take disciplinary action which may include cancellation of the licence of the person and his name shall then be deleted from the register of qualified professionals.

(3) The person against whom a complaint has been made shall be entitled to appear and be heard at such inquiry, before his case has been determined.

(4) Any person whose licence has been cancelled and whose name has been deleted from the register of qualified professionals under sub-regulation (1) may, within thirty days of the date of notification of such cancellation and deletion, appeal against that action in accordance with section 142 of the Act.

Requirements of a qualified professional to approve designs and drawings

152. A certificate, document or plan required by the Act or these Regulations to be signed by a qualified professional shall not be valid unless signed by a person whose name is in the register referred to in these Regulations.

Mis-representation as a qualified profesional

153. A person who holds himself out as a qualified professional licensed under these Regulations commits an offence and liable to penalty as set out in the Twenty Third Schedule.

Categories of qualified contractors

154. The categories of qualified contractors shall be as determined in the Eighteenth Schedule.

Criteria for qualified contractors

155.—(1) The Authority shall develop detailed criteria for different categories of qualified contractors.

(2) The detailed criteria shall be provided to any person upon request and criteria shall be based on the following—

(*a*) plant and equipment;

(*b*) qualifications and experience of professional staff;

(*c*) past experience and performance; and

(*d*) any other relevant criteria that the Authority may consider to be necessary.

Application to register as a qualified contractor

156.—(1) Any individual, corporate entity, non-governmental or charitable organization, or public body that constructs or is proposing to construct, modify, rehabilitate or service water works may apply for registration under the appropriate category as a qualified contractor with the Authority.

(2) The Authority may, through consultations in accordance with the Act, review the conditions of registration and information required for registration from time to time.

Issuance of qualified contractor licence

157.—(1) The Authority shall verify the details of the application by visiting the premises and reviewing the state of the equipment and reviewing the experience and qualifications of the applicant and his, or members of staff.

(2) If the Authority is satisfied that the applicant is qualified to be licensed, it shall issue a licence for such period and on such conditions, as it may deem appropriate.

(3) A qualified contractor shall pay an annual licence fee as set out in the Twenty Third Schedule.

(4) Failure to pay licence renewal fees constitutes a breach of the conditions of the licence and results in the license being suspended in which case the person may not practice as a qualified contractor.

(5) A suspended licensee may be reinstated after payment of all outstanding fees.

(6) Failure to pay licence renewal fees renew the licence for a consecutive period of three years shall result in the licence being revoked.

Verification of necessary authorizations

158.—(1) A contractor engaged to undertake any works shall verify that all necessary and valid authorizations have been obtained by the client in regard to the proposed works prior to commencement of the works.

(2) Commencement of works by the contractor without having verified the availability of the required authorizations may be used as a basis by the Authority to take disciplinary action, which may include deregistration of the contractor.

Compliance with Codes of Practice

159.—(1) All qualified contractors shall comply with Codes of Practice that may be determined by the Authority from time to time.

(2) Such Codes of Practice shall be developed in consultation with the relevant professional bodies.

160.—(1) A complaint, in the format prescribed in the Twenty Fourth Schedule, may be lodged to the Authority against any person licensed as a qualified contractor under these Regulations if he has— Complaint made against a qualified contractor

(*a*) become incapable of carrying out the work of a qualified contractor;

(*b*) become unfit, through any reason, to practice as a qualified contractor; or

(*c*) failed to comply with the conditions of his/her or her licence or any provisions of the Act, or of these Regulations.

(2) The Authority shall hold an inquiry within thirty days of the complaint being lodged, and if after such inquiry the Authority is satisfied that the complaint has been justified it shall take disciplinary action which may include cancellation of the licence of the contractor and the name shall then be deleted from the register of qualified contractors.

(3) The contractor against whom a complaint has been made shall be entitled to appear and be heard at such inquiry, before the case is determined.

(4) Any contractor whose licence has been cancelled and whose name has been deleted from the register of qualified contractors under subregulation (2) may, within thirty days of the date of notification of such cancellation and deletion, appeal against the decision of the Authority in accordance with section 142 of the Act.

161.—(1) The Authority shall keep a register of all qualified contractor licenses issued under these Regulations. Register of qualified contractors

(2) The Authority shall, once in every year, publish in the *Gazette* and at least in one national newspaper of wide circulation, a list containing the names of all licensed qualified contractors.

(3) Every name deleted from the register shall also be published in the *Gazette* and newspapers of wide circulation in Malawi.

(4) Each qualified contractor shall inform the Authority in writing within twenty eight days of any changes in particulars associated with the licence.

(5) Failure to notify the Authority of any changes may result in disciplinary action, including suspension of the licence.

162. Any individual, corporate entity, non-governmental or charitable organization, or public body who holds himself out as qualified contractor licensed under these Regulations commits an offence. Mis-representaion as a qualified contractor

PART XV—MISCELLANEOUS PROVISIONS

163.—(1) Where unusual climatic, accidental or hydrological events has occurred, the Minister may impose an Emergency Order by publication in the *Gazette* as per section 65 of the Act in the interests of maintaining the reserve and water for domestic purposes. Measures during emergencies

(2) The Emergency Order shall provide details as listed in the Twentieth Schedule.

(3) An Emergency Order be lifted or varied by notice published in the *Gazette.*

(4) Any person who fails to comply with an Emergency Order commits an offence.

Water Users Association

164.—(1) For any water users association to be considered for registration by the Authority, it shall be required to satisfy the requirements prescribed in the Act.

(2) Any association that meets the prescribed conditions shall register with the Authority.

(3) The Authority shall respond in writing within ninety days of the receipt of the application by the association;

(4) Upon registration, the Authority shall issue the association with a certificate of registration.

(5) Whenever the particular details of the association change, the association shall inform the Authority of the changes and the Authority shall duly amend the register.

(6) The Authority may enter into a memorandum of understanding with an association for the purposes of collaborative management of the water resources.

(7) The memorandum of understanding may provide for administrative, technical or financial support to the association by the Authority in respect of activities related to collaborative water resource management.

(8) The Authority may with good cause suspend an association from its Register of Associations if the association fails to adhere to its own constitution, fails to engage in collaborative management of the water resources or fails to honour the memorandum of understanding with the Authority.

(9) During the period in which an association is suspended, it shall not be engaged in any activities related to any memorandum of understanding entered into with the Authority, without the approval of the Authority.

(10) The Authority may lift the suspension upon being satisfied that an association has taken corrective measures on the issues that led to the suspension.

(11) The Authority shall deregister an association that fails to take corrective measures and the association shall cease to be engaged in any water resources management activities covered under any memorandum entered into with the Authority.

(12) The registration of an association with the Authority shall not on its own confer any legal status to the association unless the association has satisfied the requirements for attaining the legal status under any other written law.

(13) Any association under suspension that violates the conditions of the suspension order, or any association removed from the register that engages in water resources management activities covered in the memorandum of understanding entered into with the Authority commits an offence.

Entry upon land

165. Every applicant for an authority to enter upon land belonging to other persons for survey or investigative purposes of water resource management or development shall write to the Authority seeking permission to enter the land.

Water resources inspector

166.—(1) The Authority may, in writing, authorize any person employed in the public service, or any servant, agent or contractor of such person, to perform any of the powers, duties or obligations vested in it by these Regulations.

(2) The following persons shall perform the duties and have the powers of water resources inspector—

(*a*) any person appointed to a post that is equal to or more senior than that of a water resources officer or water rights officer in the Authority; or

(*b*) persons other than officers of the Authority, appointed by the Authority by notice published in the *Gazette*, as water resources inspector, which persons may receive such payment in respect of their services as the Authority may determine.

(3) Every person appointed to perform duties and exercise powers of a water resources inspector shall carry a document of identification, and shall produce it when required in the performance of his duties.

Water resource data

167.—(1) The Authority shall maintain a database for purposes of water resource management.

(2) The database shall contain data on climate, surface water, groundwater, water quality, catchment conditions, abstractions, licences, permits, water use and any other data relevant to the management of the water resources.

(3) Any person requiring water resource data from the Authority shall apply in writing.

(4) The request for data shall be reasonable in the opinion of the Authority with respect to a specific activity and area.

(5) The applicant shall be required to pay for the data according to the fees prescribed in the Twenty Third Schedule, unless the Authority is satisfied that the data is to be used for research or non-commercial purposes.

(6) Data provided by the Authority shall not be for resale or transferable to a third party.

(7) The Authority shall not be held liable for any errors or omissions in its data.

(8) The citation for any publication that uses data from the Authority shall be submitted to the Authority with a brief summary of the publication within thirty days of the date of publication.

Register of water bodies

168.—(1) The Authority shall maintain a register and map of all water bodies which shall detail the official name and class, if any, of each water body.

(2) An official name of a water body shall be determined by the Authority after consultation with other relevant government departments and any other stakeholders.

Powers to exempt from regulations

169.—(1) The governing body of the Authority may, after stating both the justification and the time limits, order in writing that any provision of these Regulations shall not apply to any particular case or person, or only to such extent and subject to such special conditions as it may deem reasonable under the circumstances.

(2) Exemptions made under subregulation (1) shall not compromise the wider public interest.

Public notification of licences and permits

170.—(1) The Authority shall cause to be displayed on the notice board, at its offices and at the offices of the District Commissioner of the relevant district, a list of notifications on licences, permits and cancellations, within their respective jurisdiction.

(2) The list displayed pursuant to subregulation (1) shall include a summary of the information pertaining to the water activity.

(3) Any person who wishes to obtain full details of a particular licence or permit shall apply to the Authority in writing and pay the required fee as specified in the Twenty Third Schedule.

Easement

171.—(1) An application for an easement under section 64 of the Act shall be in the format contained in the Twenty Third Schedule and shall be accompanied by the appropriate application fee specified in the Schedule.

(2) The Authority shall, within fourteen (14) days of receipt of the application, give written notice of the application to any person who has an interest in the land over which the easement is being sought.

(3) The Authority shall, in the notice referred to under subregulation (2), invite the affected person to—

(*a*) inspect the application at the Authority's office;

(*b*) make any objection or written submission to the Authority within thirty days of receipt of the notice; and

(*c*) indicate whether he wishes to be heard in person by the Authority.

(4) The Authority may, on hearing any objection under subregulation (3)(*b*) or submission under subregulation (3)(*c*) grant a certificate of easement contained in the Twenty Second Schedule.

172.—(1) The Authority shall maintain and keep a register of licences and permits issued by the Authority under the Act and these Regulations. Register of licences and permits

(2) The register shall contain the information set out in the Nineteenth Schedule and any other information which the Authority may consider appropriate.

(3) The Authority may revise the register—

(*a*) to take into account any change in the ownership or occupation of land;

(*b*) to correct any error; or

(*c*) to take into account any surrender, cancellation, variation, or alteration of any licence or permit.

(4) The Authority may keep the register in such form as the Authority considers appropriate.

(5) A person may obtain a copy of a register of licence or a register of permits after payment of fees contained in the Twenty Third Schedule.

173. The right of a licensee and permit holder shall, notwithstanding anything in his licence or permit, be subject to and conditional upon his compliance with the provisions of the Act and any other statutory requirements. Requirements to comply with other laws

174.—(1) Any thing done or made before the coming into force of these Regulations in relation to Schedules, licences, drilling and construction permits, effluent or an effluent discharge permit, which acts would have been done or made under these Regulations, shall be deemed to have been done or made under these Regulations. Transition and savings

(2) Notwithstanding subregulation (1), anything done or made under that subregulation shall continue in force until terminated by the Authority in order to bring it in conformity with the terms and conditions under these Regulations.

(3) For the avoidance of any doubt, the termination under sub-regulation (2) shall not release the licensee or holder of a permit from any liability incurred and done under the licence or permit.

175. Any person who contravenes any provision of these Regulations or an order made under these Regulations commits an offence, shall be liable to the penalties prescribed in the Twenty Third Schedule and or in the Act. Penalties for offences

176. A person whose application is rejected by the Authority may appeal against the decision of the Authority in accordance with section 142 of the Act and in the form specified in the Twenty Fifth Schedule. Appeal

FIRST SCHEDULE (reg. 13)

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

APPLICATION FOR REGISTRATION OF AN EXISTING WATER USE RIGHT

FORM A

SURFACE WATER USE REGISTRATION

To be completed in triplicate.

Depending on the nature of the existing use, you also have to complete Part A (Domestic), B (Public), C (Industrial), D (Irrigation), E (Power generation), F (Dam Construction) or G (Other purposes).

1. Names and addresses of client

Name	
Address	
District	
Telephone	
Mobile Phone	
Fax	
Email	

2. Land requiring water

Name of landowner where

(i) the works exist _____

(ii) use of water exist _____

Address of landowner if different from (1) above

_____

Property regime of land-( ) Customary ( ) Leasehold ( ) Freehold [*tick one which is appropriate*]

If leasehold, indicate: Plot No. _____

If freehold, indicate: Plot No. _____

Location of land where works is situated _____

Location of land where use of water is taking place: Village: _____
Traditional Authority: _____ District: _____

Area of that land: _____ (hectares)

3. Source of water

Select the source of water [*tick one which is appropriate*]

( ) River ( ) Lake ( ) Brook ( ) Dam ( ) Stream ( ) Lagoon ( ) Ditch ( ) Swamp ( ) Wetland ( ) Other (*please specify*):_____

Name of the source of water: _____

Exact name where the water was diverted, stored or used: _____

Coordinates (in UTM format): _____

District where the water uptake is located (if applicable): _____

(*Attach a topographic map 1:50,000, indicating location of the intake works.*)

4. Quantity (m3/day) and Use of water

(✓ *Tick one or more in boxes as appropriate*)

tick	Use of Water	Quantity (m3/day)
	Irrigation	
	Livestock	
	Urban domestic	
	Rural domestic	
	Industrial	
	Fisheries services	
	Power generation	
	Recreational	
	Other (please specify)	
	Total Volume	

5. Technical details of the works

5.1 Diversion

(*a*) Canal

Width at bottom _____ (m) Width at full supply level _____ (m)

Depth of water at full supply level _____ (m) Length _____ (m)

Gradient _____ Average velocity _____ (m/s)

Estimated discharge at full supply depth _____ (m3/day)

Materials of which canal is constructed _____

If so, name of land affected _____

Name of its owners and occupiers _____

(*b*) Pipe

Internal diameter _____ (mm) Length _____ (m)

Hydraulic gradient _____ Pipe thickness _____ (mm)

Description of pipe material _____

(*c*) Any other structures

_____

Any other relevant details

Do any canals, pipes or structures affect another person's land? ( ) Yes ( ) No

If so, name of land affected _____

Name of its owners and occupiers _____

How do you measure the volume of water used? _____

What type of measuring equipment has been installed? _____

5.2 Pump

Type of pump

( ) Centrifugal ( ) Submersible ( ) Other (specify) _____

Means of Power

( ) Solar ( ) Electricity ( ) Manual ( ) Other (specify) _____

Brake horsepower of machine _____ BHP

Internal diameter of suction main _____ (mm)

Maximum height of suction _____ (m)

Length of suction pipe _____ (m)

Height to which the pump will lift the water _____ (m)

Internal diameter of delivery pipe _____ (mm)

Length of delivery pipe _____ (m)

Pumping hours per day _____

Quantity of water pumped when plant is working _____ (m3/day)

6. Other information

Is the water used, in any way which increases silt, gravel or other solids in the water source, or makes it likely to harm people, animals, fish, crops or gardens? ( ) Yes ( ) No

If "Yes" are there any remedial or preventative measures to reverse or reduce the negative impacts above? _____

Give details of any other water permits relating to the same land as this application

_____

When did the use of water applied for begin? _____

(Attach your development plan)

For how long will you require a water permit? _____

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names _____ Date _____

Note: When you have completed this form and the appropriate attachments, you must attach a copy of bank deposit slip amounting to _____Malawi Kwacha for processing the application and send them to: The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

The Authority may advertise this application at your cost in a way specified by the Authority.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part A-Domestic purposes

How much water is used for each or any of the following purposes?

Category of Use/Purpose	**Quantity required (m3/day)**
1. Household and sanitary use (include the following details) No. of low density houses ..... No. of occupants of medium density houses ..... No. of occupants of high density houses.....	
2. No of livestock watering (include the following details) No. of large livestock..... Type of large livestock ..... No. of small livestock..... Type of small livestock.....	
3. Cattle, Sheep and goats, pigs, poultry, donkey No. of animal dip	
4. Other non-industrial farming operations (please describe)	
Total volume	

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of the Applicant: _____

Full names: _____ Date: _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part B-Public purposes

1. How much water is used for each or any of the following purposes?(cubic metres per day)

Purpose	**Quantity required present (m3/day)**	**Quantity required in 5 years (m3/day)**
(*a*) Municipal, urban or community purposes or supply to others in return for payment		
(*b*) Any other purposes (specify)		
Total water required for public purposes		

2. If water is used for purposes mentioned in paragraph 1(a) of this Part, please provide the following estimates:

Population Estimate Category	**No. of houses**	**Medium Density Area No. of occupants**	**High Density Area No. of occupants**
Estimated population at present			
Estimated population 5 years hence			
Estimated population 10 years hence			
Estimated population 20 years hence			

3. If water is used for purposes mentioned in paragraph 1*(b)* of this Part, to what use is the water to be put? _____

4. Does the applicant supply water to any other person, in return for payment?

_____

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part C-Industrial purposes

State the quantity of water required in appropriate space

Purpose	**Quantity (m3/day)**	**Normal working hours for the factory in a day**	**Max working hours for the factory in a day**	**Period during year when water is required**
Stream raising, cooling and condensing water				
Manufacturing -Process water -Dilution of effluent				
Coffee pulping and washing				
Other purposes (specify)				
Total water required (m3/day)				

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from

the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part D-Irrigation purposes

Please provide the following information

(*a*) Crops irrigated (name), area of each (hectares) and the growing season (name months)

Crop Name	Area (hectares)	Growing Season	
		From (month)	To (month)

(*b*) Mean quantity of water in cubic metres per day

Jan_____ Apr_____ Jul_____ Oct_____

Feb_____ May_____ Aug_____ Nov_____

Mar_____ Jun_____ Sep_____ Dec_____

(*c*) What type of soil is irrigated? _____

(*d*) Is the subsoil permeable to drainage? _____

(*e*) Describe what drainage works are constructed on the irrigated land.

(*f*) How is unused water disposed of? _____

(*g*) Name the water source to which it is returned: _____

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part E-Use of water for power generation

Please provide the following information—

(*a*) Purpose for which power is used _____

(*b*) Brake horsepower developed—

(i) Maximum _____ (BHP), _____ (kW)

(ii) Minimum _____ (BHP), _____ (kW)

(*c*) Gross fall or head available for power production at the following river stages—

(i) at low stage _____ (m)

(ii) at normal stage _____ (m)

(iii) at high stage _____ (m)

(Only answer items (i) and (ii) if power developed is in excess of 100 BHP.)

The net fall or head used in (b) above _____ (m)

The water required to develop (b) above _____ (m3/day)

Type of machines installed _____

Number of machines installed _____

How is water returned to its source after use? _____

State length of any return channel _____ (m)

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part F-Construction of dam

1. Please provide the following information for all dams—

(*a*) Nature of stream bed at site (e.g., sound rock, fissured rock, sand) _____

(*b*) Nature of walls of river at site (e.g. sand, soil) _____

(*c*) Will dam be founded on sound rock? _____

(*d*) Will dam be founded on any material which may be eroded by underflow? _____

(*e*) Describe type of dam (e.g., earth with core wall, concrete, masonry) _____

(*f*) Length of crest of dam (m.) _____; Maximum height of dam (m.) ____; Thickness at crest (m.) _____ Thickness at base (m.) _____

(*g*) Estimated area of reservoir at spillway (ha.) _____

(*h*) Estimated reservoir storage capacity (m3) _____

(*i*) Will the submerged area at high flood level be on another person's land?

(If so, give the name of other landowners) _____

(*j*) Is either bank of the stream at the site of dam owned by another person?

(If so, give the name of other land owners) _____

(*k*) Will any other works including weirs, already constructed or being constructed, be affected by the head and/or tail water level of the proposed works? (If so, give full details of the works affected)

_____

2. If the dam exceeds 70,000 cubic metres in volume or 5 metres in height, please provide the following information about its catchment area

(*a*) Area of surface catchment (km2) _____

(*b*) Maximum length of catchment (km.) _____

(*c*) Average breadth of catchment (km.) _____

(*d*) Ruling slope of catchment (fall per km.) _____

(*e*) Nature of ground of catchment (e.g., rocky, stony soil, clay soil) _____

(*f*) Vegetation of catchment (e.g., forest, shrub, pasture, crop)_____

3. Please provide the following information about means of disposing of flood waters

(a) Will the dam act as a weir? ( ) Yes ( ) No

(b) Will there be bypasses or waste weirs on one or both flanks? _____

(c) State the width and depth of the bypasses below the crest of the dam

Width (m.) _____ Depth (m.) _____

(d) If bypasses or waste weirs are to be constructed, state nature of material in which they will be excavated: _____

(e) State maximum capacity of the weir (m3/sec.):_____

(f) State nature of material to be used for lining the bypasses or waste weir(s): _____

(g) Gradient of waste weir: _____

If you propose to use some other method to dispose of flood waters, please give details:

_____

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date: _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part G-Other purposes

Describe the amount of water that you will require for any other purposes.

Purpose (specify below)	Quantity (m3/day)

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date: _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

FORM B

GROUNDWATER USE REGISTRATION

To be completed in triplicate.

1. Names and addresses of client

Name	
Address	
District	
Telephone	
Mobile Phone	
Email	

2. Land requiring water

Name of landowner where

(i) the works exist: _____

(ii) use of water exist: _____

Address of landowner if different from (1) above

_____

Property regime of land-

( ) Customary ( ) Leasehold ( ) Freehold [✓ *tick one which is appropriate*]

If leasehold, indicate: Plot No. _____

If freehold, indicate: Plot No. _____

Location of land where works is situated: _____

Location of land where use of water is taking place: Village: _____

Traditional Authority: _____ District: _____

Area of that land: _____ (*hectares*)

3. Source of water

Select the source of water as appropriate

( ) Borehole ( ) Dug well ( ) Spring ( ) Other (specify): _____

4. Details of the borehole

Date drilled: _____ Driller _____

Diameter: _____ Depth _____

Lining/Casings: _____ Test yield _____

5. Quantity (m3/day) and Use of water

(✔ *Tick one or more in boxes as appropriate*)

✔ tick	Use of Water	Quantity (m3/day)
	Irrigation	
	Livestock	
	Urban domestic	
	Rural domestic	
	Industrial	
	Fisheries services	
	Power generation	
	Recreational	
	Other (please specify)	
	Total Volume	

6. Construction and Installation details

Type of pump—

( ) Centrifugal ( ) Submersible ( ) Solar ( ) Other (specify): _____

Type of driving machine and fuel used: _____

Brake horsepower of machine: _____ HP

Elevation of pump above sea level: _____ (m)

How will the pump be connected to driving machine? _____

Internal diameter of suction main: _____ (mm)

Maximum height of suction: _____ (m)

Height to which water is to be lifted above pump: _____ (m)

Length of delivery pipe: _____ (m)

Pumping hours per day: _____

Quantity of water to be pumped when plant is working _____ (m3/day)

How do you propose to measure the volume of water used? _____

7. Other information

What alternative sources of water does the applicant have?

( ) Surface water ( ) Urban water supply ( ) Rural water supply ( ) Other (specify) _____

Are there any existing boreholes within 500 metres radius of the site to which this application refers?:

( ) None ( ) Yes If so, how many? _____and give the details in the table below:

Borehole number (if known)	Name of locality	Distance from site

(Attach a sketch map, on a standard A4 paper, showing land boundaries, the approximate position of the proposed borehole, existing boreholes within one kilometre of the proposed boreholes and any source of surface water.)

For how long will you require a water permit?: _____

Is the source of water located in any of the water utility board service area?

( ) No ( ) Yes, Name of Water Utility Board: _____

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Note: When you have completed this form and the appropriate attachments, you must attach copy of a bank deposit slip or cheque for _____ Kwacha for processing the application and send them to: The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907 , Email: nwrasec@gmail.com

The Authority may require you to advertise this application at your cost in a way specified by the Authority. Please attach a copy of the borehole completion report.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Borehole No: _____

WRA No.: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

SECOND SCHEDULE

WATER RESOURCE ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

APPLICATION FOR A WATER ABSTRACTION PERMIT

FORM A1

SURFACE WATER APPLICATION

To be completed in triplicate.

Depending on the nature of the existing use, you also have to complete Part A (Domestic), B (Public), C (Industrial), D (Irrigation), E (Power generation), F (Dam Construction) or G (Other purposes).

1. Names and addresses of client

Name	
Address	
District	
Telephone	
Mobile Phone	
Fax	
Email	

2. Land requiring water

Name of landowner where

(i) the works exist: _____

(ii) use of water exist: _____

Address of landowner if different from (1) above

_____

Property regime of land- ( ) Customary ( ) Leasehold ( ) Freehold [✔ *tick one which is appropriate*]

If leasehold, indicate: Plot No.: _____

If freehold, indicate: Plot No.: _____

Location of land where works is situated: _____

Location of land where use of water is taking place: _____

Village: _____ Traditional Authority: _____

Area of that land: _____ (hectares)

3. Source of water

Select the source of water [☐tick one which is appropriate]

( ) River ( ) Lake ( ) Brook ( ) Dam ( ) Stream ( ) Lagoon ( ) Ditch ( ) Swamp ( ) Wetland ( ) Other (please specify):_____

Name of the source of water: _____

Exact Name where the water was diverted, stored or used: _____

Coordinates (in UTM format): _____

District where the water uptake is located (when applicable): _____

(Attach a topographic map 1:50,000, indicating location of the intake works.)

4. Quantity (m^3/day) and Use of water

(✔ Tick one or more in boxes as appropriate)

tick	Use of Water	Quantity (m3/day)
	Irrigation	
	Livestock	
	Urban domestic	
	Rural domestic	
	Industrial	
	Fisheries services	
	Power generation	
	Recreational	
	Other (please specify)	
	Total Volume	

5. Technical details of the works

5.1 Diversion

(a) Canal

Width at bottom _____ (m) Width at full supply level _____ (m)

Depth of water at full supply level _____ (m) Length _____ (m)

Gradient _____ Average velocity _____ (m/s)

Estimated discharge at full supply depth _____ (m3/day)

Materials of which canal is constructed _____

Name of land affected (if any) _____

Name of its owners and occupiers _____

(b) Pipe

Internal diameter _____ (mm) Length _____ (m)

Hydraulic gradient _____ Pipe thickness _____ (mm)

Description of pipe material _____

(c) Any other structures

_____

Any other relevant details

Do any canals, pipes or structures affect another person's land? ( ) Yes ( ) No

If so, name of land affected _____

Name of its owners and occupiers _____

How do you measure the volume of water used? _____

What type of measuring equipment has been installed? _____

5.2 Pump

Type of pump

( ) Centrifugal ( ) Submersible ( ) Other (specify) _____

Means of Power

( ) Solar ( ) Electricity ( ) Manual ( ) Other (specify) _____

Brake horsepower of machine _____ BHP

Internal diameter of suction main _____ (mm)

Maximum height of suction _____ (mm)

Length of suction pipe _____ (mm)

Height to which the pump will lift the water _____ (m)

Internal diameter of delivery pipe _____ (mm)

Length of delivery pipe _____ (m)

Pumping hours per day _____

Quantity of water pumped when plant is working _____ (m3/day)

6. Other information

Is the water used, in any way which increases silt, gravel or other solids in the water source, or makes it likely to harm people, animals, fish, crops or gardens?

( ) Yes ( ) No

If "Yes" are there any remedial or preventative measures to reverse or reduce the negative impacts above? _____

Give details of any other water permits relating to the same land as this application

_____

When did the use of water applied for begin? _____

(Attach your development plan)

For how long will you require a water permit? _____

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Note: When you have completed this form and the appropriate attachments, you must attach a copy of bank deposit slip amounting to _____ Kwacha for processing the application and send them to:

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

The Authority may advertise this application at your cost in a way specified by the Authority.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part A-Domestic purposes

How much water is used for each or any of the following purposes?

Category of Use/Purpose	Quantity required (m3/day)
1. Household and sanitary use (include the following details) No. of low density houses ..... No. of occupants of medium density houses ..... No. of occupants of high density houses.....	
2. Stock watering (include the following details) No. of large stock..... Type of large stock ..... No. of small stock..... Type of small stock.....	
3. Cattle, Sheep and goats, pigs, poultry, donkey No. of animal dip	
4. Other non-industrial farming operations (please describe)	
Total volume	

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part B-Public purposes

1. How much water is used for each or any of the following purposes?(cubic metres per day)

Purpose	Quantity required present (m3/day)	Quantity required in 5 years (m3/day)
(a) Municipal, urban or community purposes or supply to others in return for payment		
(b) Any other purposes (specify)		
(c) Total water required for public purposes		

2. If water is used for purposes mentioned in paragraph 1(a) of this Part, please provide the following estimates:

Population Estimate Category	Low Density Area No. of houses	Medium Density Area No. of occupants	High Density Area No. of occupants
Estimated population at present			
Estimated population 5 years hence			
Estimated population 10 years hence			
Estimated population 20 years hence			

3. If water is used for purposes mentioned in paragraph 1(b) of this Part, to what use is the water to be put? _____

4. Does the applicant supply water to any other person, in return for payment?

_____

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part C-Industrial purposes

State the quantity of water required in appropriate space

Purpose	Quantity (m3/day)	Normal working hours for the factory in a day	Max working hours for the factory in a day	Period during year when water is required
Stream raising, cooling and condensing water				
Manufacturing -Process water -Dilution of effluent				
Coffee pulping and washing				
Other purposes (specify)				
Total water required				

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part D-Irrigation purposes

Please provide the following information

(a) Crops irrigated (name), area of each (hectares) and the growing season (name months)

Crop Name	Area (hectares)	Growing Season	
		From (month)	To (month)

(b) Mean quantity of water in cubic metres per day

Jan_____ Apr_____ Jul_____ Oct_____

Feb_____ May_____ Aug_____ Nov_____

Mar_____ Jun_____ Sep_____ Dec_____

(c) What type of soil is irrigated? _____

(d) Is the subsoil permeable to drainage? _____

(e) Describe what drainage works are constructed on the irrigated land.

(f) How is unused water disposed of? _____

(g) Name the water source to which it is returned: _____

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part E-Use of water for power generation

Please provide the following information—

(a) Purpose for which power is used _____

(b) Brake horsepower developed—

(i) Maximum: _____ (BHP), _____ (kW)

(ii) Minimum: _____ (BHP), _____ (kW)

(c) Gross fall or head available for power production at the following river stages—

(i) at low stage _____ (m)

(ii) at normal stage _____ (m)

(iii) at high stage _____ (m)

(Only answer items (i) and (ii) if power developed is in excess of 100 BHP)

The net fall or head used in (b) above _____ (m)

The water required to develop (b) above _____ (m3/day)

Type of machines installed _____

Number of machines installed _____

How is water returned to its source after use? _____

State length of any return channel _____ (m)

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date: _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part F-Construction of dam

1. Please provide the following information for all dams—

(a) Nature of stream bed at site (e.g., sound rock, fissured rock, sand) _____

(b) Nature of walls of river at site (e.g. sand, soil) _____

(c) Will dam be founded on sound rock? _____

(d) Will dam be founded on any material which may be eroded by underflow? _____

(e) Describe type of dam (e.g., earth with core wall, concrete, masonry)_____

(f) Length of crest of dam (m.) _____ Maximum height of dam (m.) _____

Thickness at crest (m.) _____ Thickness at base (m.) _____

(g) Estimated area of reservoir at spillway (ha.) _____

(h) Estimated reservoir storage capacity (m3) _____

(i) Will the submerged area at high flood level be on another person's land?

(If so, give the name of other landowners) _____

(j) Is either bank of the stream at the site of dam owned by another person?

(If so, give the name of other land owners) _____

(k) Will any other works including weirs, already constructed or being constructed, be affected by the head and/or tail water level of the proposed works? (If so, give full details of the works affected)

_____

2. If the dam exceeds 70,000 cubic metres in volume or 5 metres in height, please provide the following information about its catchment area

(a) Area of surface catchment (km2) _____

(b) Maximum length of catchment (km.) _____

(c) Average breadth of catchment (km.) _____

(d) General/average/dominant slope of catchment (fall per km.) _____

(e) Nature of ground of catchment (e.g., rocky, stony soil, clay soil) _____

(f) Vegetation of catchment (e.g., forest, shrub, pasture, crop) _____

3. Please provide the following information about means of disposing of flood waters

(a) Will the dam act as a weir? ( ) Yes ( ) No

(b) Will there be bypasses or waste weirs on one or both flanks? _____

(c) State the width and depth of the bypasses below the crest of the dam

Width (m.) _____ Depth (m.) _____

(d) If bypasses or waste weirs are to be constructed, state nature of material in which they will be excavated _____

(e) State maximum capacity of the weir (m3/sec.) _____

(f) State nature of material to be used for lining the bypasses or waste weir(s) _____

(g) Gradient of waste weir _____

If you propose to use some other method to dispose of flood waters, please give details.

_____

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part G-Other purposes

Describe the amount of water that you will require for any other purposes.

Purpose (specify below)	Quantity (m3/day)

Declaration of the Applicant

I certify that the information in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to the application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

FORM B1

GROUND WATER APPLICATION

To be completed in triplicate.

1. Names and addresses of client

Name	
Address	
District	
Telephone	
Mobile Phone	
Email	

2. Land requiring water

Name of landowner where

(i) the works exist _____

(ii) use of water exist _____

Address of landowner if different from (1) above

_____

Property regime of land- ( ) Customary ( ) Leasehold ( ) Freehold [tick one which is appropriate]

If leasehold, indicate: Plot No. _____

If freehold, indicate: Plot No. _____

Location of land where works is situated _____

Location of land where use of water is taking place _____

Village: _____ Traditional Authority: _____

Area of that land: _____ (hectares)

3. Source of water

Select the source of water as appropriate

( ) Borehole ( ) Dug well ( ) Spring ( ) Other (specify) _____

4. Details of the borehole

Date drilled _____ Driller _____

Diameter _____ Depth _____

Linning/Casings _____ Test yield _____

5. Quantity (m3/day) and Use of water

(✔ Tick one or more in boxes as appropriate)

✔ tick	Use of Water	Quantity (m3/day)
	Irrigation	
	Livestock	
	Urban domestic	
	Rural domestic	
	Industrial	
	Fisheries services	
	Power generation	
	Recreational	
	Other (please specify)	
	Total Volume	

6. Construction details

Type of pump—

( ) Centrifuge ( ) Submersible ( ) Solar ( ) Other (specify) _____

Type of driving machine and fuel used _____

Brake horsepower of machine _____ HP

Elevation of pump above sea level _____ (m)

How will the pump be connected to driving machine? _____

Internal diameter of suction main _____ (mm)

Maximum height of suction _____ (m)

Height to which water is to be lifted above pump _____ (m)

Length of delivery pipe _____ (m)

Pumping hours per day _____

Quantity of water to be pumped when plant is working _____ (m3/day)

How do you propose to measure the volume of water used? _____

7. Other information

What alternative sources of water does the applicant have?

( ) Surface water ( ) Urban water supply ( ) Rural water supply ( ) Other (specify) _____

Are there any existing boreholes within 500 metres radius of the site to which this application refers?

( ) None ( ) Yes If so, how many? _____and give the details in the table below;

Borehole number (if known)	Name of farm	Distance from site

(Attach a sketch map, on a standard A4 paper, showing land boundaries, the approximate position of the proposed borehole, existing boreholes within one kilometre of the proposed boreholes and any source of surface water.)

For how long will you require a water permit? _____

Is the source of water located in any of the water utility board service area?

( ) No ( ) Yes, Name of Water Utility Board _____

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Note: When you have completed this form and the appropriate attachments, you must attach a copy of a bank cash deposit slip or cheque for _____ Kwacha for processing the application and sent them to: The Executive Director, National Water Resources Authority, Private Bag _____Lilongwe

The Authority may require you to advertise this application at your cost in a way specified by the Authority. Attach a copy of the borehole completion report.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Borehole No: _____

WRA No.: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

FORM B2

APPLICATION FOR PERMISSION TO REHABILITATE DEFECTIVE BOREHOLES

To be filled in triplicate

1. Names and addresses of client

Name	
Address	
District	
Telephone	
Mobile Phone	
Email	

2. Details of the borehole

Licence number of the borehole: _____

Location of the borehole (Coordinates Village/Area, Traditional Authority, Water Resources Area, and District): _____

Borehole depth (m): _____

Casing diameter (mm): _____

Static water level (m): _____

Amount and location of casing or sealing in the borehole: _____

Details of the strata

Depth (interval)	**Description of the Strata (include issues of water quality if any)**

3. Rehabilitation details

Describe the methods of rehabilitation of the borehole

_____

_____

_____

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Note: When you have completed this form and the appropriate attachments, you must attach a copy of bank cash deposit slip or cheque for _____ Kwacha for processing the application and sent them to:

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907 , Email: nwrasec@gmail.com

The Authority may require you to advertise this application at your cost in a way specified by the Authority. Attach a copy of the borehole completion report.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Borehole No: _____

WRA No.: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

THIRD SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

LICENCE FOR WATER ABSTRACTION

FORM C1

LICENCE FOR SURFACE WATER ABSTRACTION

Licence No.: _____

Name and address: _____

You are granted a licence in respect of extraction of surface water using the following methods:

_____

_____

_____

Purposes for which the water will be used:

_____

_____

Location of point of extraction (district, traditional authority, village/area, coordinates, WRA):

_____

This licence shall be valid for_____ years from (date) _____ to (date) _____

In addition to the conditions specified in the Act and any other law in force, this licence is subject to the following conditions—

si

(a) the licence is granted for a period not exceeding 5 years;

(b) the maximum amount of water which may be taken is _____ m3/day;

(c) annual water charges _____ Malawi Kwacha;

(d) the protection or control of in-stream uses of water of ___ cubic metres per second; and

(e) the installation and use of measuring devices or pumps

(f) others: _____

_____

Date: _____

Name: _____

Signature: _____

Official Stamp: _____

Board Number: _____

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

FORM C2

LICENCE FOR GROUNDWATER ABSTRACTION

Licence No. _____

Name and address: _____

You are granted a licence in respect of extraction of ground water using the following methods:

_____

Purposes for which the water will be used:

_____

_____

Location of point of extraction (district, traditional authority, village/area, coordinates, WRA):

_____

This licence shall be valid for_____ years from (date) _____ to (date) _____

In addition to the conditions specified in the Act and any other law in force, this licence is subject to the following conditions—

(a) the licence is granted for a period not exceeding 5 years;

(b) the maximum amount of water which may be taken is _____ m3/day;

(c) annual water charges _____ Malawi Kwacha;

(d) the protection or control of in-stream uses of water of _____ cubic metres per second;

(e) the installation and use of water level measuring device

(f) others: _____

_____

Date: _____

Name: _____

Signature: _____

Official Stamp: _____

Board Number: _____

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

FOURTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM D

APPLICATION FOR TRANSFER OF OWNERSHIP OF WATER LICENCE

To be filled by the initial holder or his/her representative)

This form should be used to register the transfer of a licence for an existing abstraction to the new owner of the premises to which it applies. If the use is to change in any way, a new permit must be obtained before the changes can be implemented. Please complete the relevant sections of this form in triplicate IN BLOCK LETTERS and return it to the Authority within twenty-one (21) days of the transfer.

I/We* apply for change of ownership of licence, Reference No. _____, to the new holder effective from _____ (insert date)

Name and Signature of new holder: _____

Date: _____

1. Names and addresses of new holder (or new holder's agent)

Name: _____

Address: _____

Telephone: _____

Mobile Number: _____

Email: _____

Designation: _____

Postal address (if different from above) _____

District _____

Main activity _____

2. Reasons for transfer

Please give your reasons for transferring this permit to other persons or company.

_____

_____

Declaration of the Applicant

I/We* certify that the information provided in this form is complete and correct to the best of my/our* knowledge.

Signature of Applicant: _____

Names in full: _____ Date _____

When you have completed this form you must return and attach a copy of bank cash deposit slip or cheque for _____ Kwacha for processing the application and send it to:

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

together with any attachments indicated above.

Note: The Authority may require further information to discuss the transfer with you, before making a determination as to whether the proposed transfer is acceptable.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

FIFTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM E

DETAILS FOR STORAGE DAMS

Table 1: Classification of Dams

Class of Dam	Height of the Dam (m)	Capacity(m3)
Very Small	0 – 4.5	<500,000
Small	>4.5-<8.0	< 1,000,000
Medium	>8.0-< 15.00	<5,000,000
Large	>15	>5,000,000

Table 2: Design and Supervision of Dam

Class of Dam	Category of Qualified Professional
Very Small	Water Engineer
Small	Registered Civil Engineer
Medium	Professional Dam Experts
Large	Professional Dam Experts

Table 3: Category of Dam Contractor

Class of Dam	Category of Dam Contractor
Very Small	15 Million Kwacha
Small	50 Million Kwacha
Medium	Unlimited
Large	Unlimited

Table 4: Dam Safety Inspection Schedule

Class of Dam	Frequency of inspection	Inspection by
Very Small	Once in 5 years	Water Engineer
Small	Once in 3 years	Registered Civil Engineer
Medium	Once every 2 years	Professional Engineer
Large	Once every year	Professional Engineer

Table 5: Minimum Spillway Design Flood for Dams

Class of Dam	Minimum Return Period for Design of Spillway
Very Small	1 in 20 years
Small	1 in 500 years
Medium	1 in 1000 years
Large	1 in 10,000 years

SIXTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

APPLICATION FOR DRILLING AND CONSTRUCTION PERMIT

FORM F1

DRILLING PERMIT

To be completed in triplicate

Complete this form if you want to apply for a drilling permit. Please provide all the information described in Parts A and B, using as many sheets as necessary.

1. Name and addresses of Company/Firm*

Name: _____

Address: _____

Telephone: _____

Mobile Number: _____

Email: _____

2. Company/Firm* information

Date of registration: _____

Business Registration No: _____

Date of issue: _____

TPIN: _____

Name of Company/Firm*	Citizenship

3. Bankers

Please provide the name and address of your firm's bankers:

Name of the Bank	Address

***Delete what is not applicable**

4. Referees

Please provide the names and addresses of two referees who can comment on the character, technical competence and reputation of yourself and your firm:

Details	Referee 1	Referee 2
Name		
Postal Address		
Telephone		
Mobile Number		
Email		

You must provide all the information contained on Parts A and B.

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made nor action taken with respect to this application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Note: When you have completed this form and the appropriate attachments, you must attach a copy of bank cash deposit slip or cheque for _____ Malawi Kwacha for processing the application and send them to:

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907 , Email: nwrasec@gmail.com

The Authority may require you to advertise this application at your cost in a way specified by the Authority.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Please provide the following information on separate sheets. Each sheet shall be signed and dated.

Equipment—

(a) Give the following details on at least one of the drilling rigs possessed:

Drilling Rig Specifics	**Details**
Make/Model	
Year of Manufacture	
Last overhaul	
Rated Capacity	
Truck/Trailer mounted	
Years with company	
Mast Capacity (kgs)	
Draw works capacity (kgs)	
Drill pipe diameter	
Drill collar diameter	
Drill collar weight	
Foam/water injection	
Mud circulation	

(b) Give the following details on at least one of the compressors possessed:

Compressor specifics	**Details**
Make/Model	
Year of Manufacture	
Last overhaul	
Rated capacity (cfm)	
Rated pressure (bar)	
Truck/trailer mounted	
Years with company	

(c) Give the following details on at least one test pumping equipment:

Pumping Test Equipment specifics	**Details**
Make/Model	
Year of Manufacture	
Last overhaul	
Lift Capacity (kgs)	
Rising main diameter	
Submersible pump diameter	
Submersible pump capacity	
Power source	
Accompanying compressor	
Rig/truck mounted	
Years with company	

(d) Specify make, type and numbers on the following miscellaneous equipment:

Miscellaneous equipment	Make	Type	Number
Hammer			
Drilling bits			
Mud pumps			
Generators			
Cementing tools			
Fishing tools			
Water level dippers			
Conductivity meters			
Communication equipment			
Survey equipment			

(e) Give the following details on the vehicles possessed (six maximum):

Vehicle No.	Make/ Model	Age (years)	Last Overhaul	4WD (yes/No)	Loading Capacity	Years with company

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part A-Contractors experience

To be completed in triplicate.

Please provide information about the contractor's experience as follows:

Client	Period (years)	Description of work

Number of boreholes drilled. _____

Average depth drilled: _____

Signed by managing authority as a true and accurate account of the company's drilling experience.

Names in full: _____

Signature: _____

Date: _____

Part B-Key Drilling Personnel Experience

Please provide the following information about the drilling supervisor, driller (1) and driller (2) as appropriate and as shown on the next table. All three formats must be signed by the drilling supervisor as an accurate account of his /her drilling experience.

Drilling Supervisor

Name: _____

Age: _____

Years of drilling experience (total with company): _____

Details of drilling experience with other companies if any

Company	Position	Description of work/duties

Average Bhs Depth drilled: _____

Signed by drilling supervisor as a true and accurate account of the company's drilling experience.

Names in full _____

Signature: _____

Date _____

Driller (1)

Name: _____

Age: _____

Years of drilling experience (total with company): _____

Details of drilling experience with other companies if any

Company	Position	Description of work/duties

Average Boreholes Depth drilled: _____

Signed by driller (1) as a true and accurate account of the company's drilling experience.

Names in full _____

Signature: _____

Date: _____

Witnessed by drilling superintendent _____

Driller (2)

Name: _____

Age: _____

Years of drilling experience (*total with company*): _____

Details of drilling experience with other companies if any

Company	**Position**	**Description of work/duties**

Average Bhs Depth drilled: _____

Signed by driller (2) as a true and accurate account of the company's drilling experience.

Names in full _____

Signature: _____

Date: _____

Witnessed by drilling superintendent: _____

FORM F2-Application for a Civil Works Permit

To be completed in triplicate.

1. Names and addresses

Name of company: _____

Address: _____

Telephone: _____

Postal address (if different from above)_____

District: _____

Main activity _____

2. Company Details

Will you work for a company under your permit? ( ) Yes ( ) No

If yes, please give the name, address, registered number and trading licence of that company.

Name _____

Address: _____

Date of registration _____

Trading Licence No. _____

3. Equipment

List the relevant construction equipment and vehicles possessed by you or your employer. Attach an extra sheet of paper if necessary.

4. Staff

Give brief details of the name, age, relevant qualifications and experience of any person employed by you or the company, who will work on construction under the permit.

Name of an individual	Designation	Age (years)	Relevant Qualification(s)

5. Your experience

What formal qualifications do you have to undertake a construction work?

_____

_____

Give details of any previous construction permit which you have held.

_____

_____

Give the following details about any construction work you have previously undertaken:

Client name _____

Description of work _____

Date of work _____

6. Further relevant information

Attach any other relevant information to that already specified.

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made nor action taken with respect to this application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names _____ Date _____

Note: When you have completed this form and the appropriate attachments, you must attach a copy of bank cash deposit slip or cheque for _____ Malawi Kwacha for processing the application and send them to: The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907 , Email: nwrasec@gmail.com

The Authority may require you to advertise this application at your cost in a way specified by the Authority.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

FORM C3 Drilling Permit

Permit No_____

Name and address _____

_____

You are authorized to operate the business of drilling boreholes in Malawi.

This permit shall be valid for one year

In addition to the conditions specified in regulation 70 of the Water Resources Regulations, this permit is subject to the following conditions:

1. Backfill dry boreholes when encountered
2. Compile and submit all drilling data to groundwater data office
3. Adhere to all standard borehole specifications
4. Share all strange hydrogeological encounters with groundwater research section and data office

Date _____ Signature _____

Official Stamp _____

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907 , Email: nwrasec@gmail.com

Form C4 Construction Permit

Permit No. _____

Name and address _____

_____

You are authorized to carry out the following works:

_____

_____

_____

Location (district, traditional authority, villages, plot number): _____

_____

This permit shall be valid from (date) _____ to (date) _____

In addition to the extra conditions specified in the Water (Water Resources) Regulations and other laws in force, this permit is subject to the following conditions:

1. Follow the standard specifications unless the respective project has its own recommended specifications
2. Compile and submit all construction and installation data to groundwater data office
3. Share information on all new pump types installed under your licence other than the standardized pump

Date: _____ Signature: _____

Official Stamp: _____

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

SEVENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM G

BOREHOLE COMPLETION REPORT

To be completed in triplicate

Water point information

1. Identification and location data

Type of water point: ( ) Borehole (i) Wet Borehole ( ) (ii) *Dry Borehole ( )

( ) Dug well ( ) Protected Shallow Well fitted with pump ( ) Augered shallow well

Identification: Project I.D. No. _____

Location Coordinates (in UTM format) _____ Altitude (masl) _____

District _____ Traditional Authority_____ Village _____

Water point ownership: ( ) Private ( ) Communal ( ) Institutional

Water point use: ( ) Domestic ( ) Irrigation ( ) Livestock ( ) Industrial

If abandoned, state the reasons for abandonment.

Water point abandoned: ( ) Low yield ( ) Water quality ( ) Technical ( ) Other (specify)_____

Date abandoned _____

If dry borehole, fill only those parts which are relevant

2. Site selection data

Sited by: Organization _____

Sited by: Name of person _____ Title _____

Date sited _____

Method of site selection: Resistivity _____ Electromagnetic _____

Seismic _____ Other (specify) _____

Attach survey results.

3. Construction data

Contractor: _____

Drilled by: Name of person _____ Title _____

Method of drilling: ( ) Air rotary ( ) Cable tool ( ) Mud rotary

( ) Augered ( ) Hand Dug ( ) Other (specify): _____

Drilling completion date: _____

Total depth of borehole/well at date of completion (m): _____

Water/well diameter:

Depth (interval)	**Diameter (mm)**

Permanent casing/well ring diameter: _____ (mm)

Type of permanent casing: ( ) PVC ( ) Mild steel ( ) Concrete ( ) Bricks ( ) Other (specify)

_____

Borehole sealing material: ( ) None ( ) Cement ( ) Bentonite ( ) Other (specify) _____

Borehole sealed depth:_____

Filter slot size and intervals:

Depth (interval)	Size (mm)

Borehole filters: ( ) Gravel pack ( ) Natural pack

Well development: Duration (hrs.) _____

Method of well development: ( ) Air lift ( ) Bailed ( ) Compressed air ( ) Over pumping ( ) Other (specify) _____

4. Pump Installation data

Type of pump: ( ) Submersible pump ( ) Centrifugal pump ( ) Hand pump ( ) Other _____

Date of pump installation: (day/month/year) _____

Name of pump _____ Pump capacity _____ (m3/h).

Pump installation/intake depth _____ (m.b.g.l).

Riser pipe material: ( ) PVC ( ) Galvanized pipes ( ) Other (specify) _____

Riser pipe diameter _____ (mm)

Number of riser pipe:

Pumping rod material: ( ) stainless steel ( ) Other (specify)

Pumping rod diameter _____ mm.

5. Hydrogeological data

Depth to bedrock (m.b.g.l.) _____

Overall geological setting _____

Lithology (m.b.g.l.):

Depth Interval	Description

Water strike depth (m.b.g.l)	Aquifer Yield (m3/hr)

6. Water Quality data

Date of sampling (day/month/year) _____

Sampling method: ( ) Pumping ( ) Air-lift sampling ( ) Bailer

Sample preservation: ( ) None ( ) Acid ( ) Other (specify) _____

Samples analyzed by: Name _____

Organization _____

Parameter	Unit	Result	Date	Field/Lab
Turbidity	NTU			
Temp. (time of sampling)	°Celsius			
Electrical Conductivity (EC) Conductivity	µS/cm			
pH				
Total alkalinity	mg/l			
Hardness (CaC03 -)	mg/l			
Calcium (Ca2+)	mg/l			
Magnesium (Mg2+)	mg/l			
Sodium (Na+)	mg/l			
Potassium (K+)	mg/l			
Carbonate (C032-)	mg/l			
Bicarbonate (HC032-)	mg/l			
Sulphate (S042-)	mg/l			
Nitrate (N0-3)	mg/l			
Ammonium (NH+4)	mg/l			
Total Iron (Fe2+ + Fe3+)	mg/l			
Manganese (Mn2+)	mg/l			
Flouride (F-)	mg/l			
Total Dissolved Solids	mg/l			
Faecal coliform	Count/ml			

7. Yield test, flow and water level data

Test carried out by:

Organisation Name _____ Title _____

Date of test _____ Duration of test _____ hrs.

A. Step pumping test ( ) Yes ( ) No

Step Yield (m3/hr.)	Drawdown (m)	Spec. capacity (m3/hr/m)

B. Constant discharge test ( ) Yes ( ) No

Average discharge during test (m3/hr.) _____

Static water level, SWL (m.b.g.l.) _____ Date measured _____

Transmissivity (m3/day) _____ Specific capacity (m3/hr/m) _____

Hydro-fracturing? ( ) Yes ( ) No If yes, day/month/year _____

C. Natural flow: ( ) Yes ( ) No

D. Air lift test: ( ) Yes ( ) No

E. Pumping: ( ) Yes ( ) No. If yes, indicate pump set depth: _____ (m)

8. Other information (include information not catered for in the above sections)

9. Details of organization submitting data

Name _____

Address _____

Telephone No. _____ Fax No. _____

Mobile Number: _____

Email _____

Name of responsible officer: _____

Title: _____

Signature: _____

Date of data submission: _____

Official Stamp: _____

EIGHTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM H

APPLICATION FOR AN EFFLUENT DISCHARGE PERMIT

To be completed in triplicate

Complete this Form if you want to apply for a permit to discharge, for a new discharge or for a variation to an existing permit to discharge under the Water Regulations. You will also have to complete Part A, B, C or D. A different form is required for trade effluents discharged to sewer for treatment at a municipal wastewater treatment plant.

A permit is required for each separate discharge. If you currently discharge or propose to discharge from more than one point, then a separate application form must be completed for each discharge.

Is this an application for a new discharge or a variation to an existing discharge?

( ) New ( ) Variation

1. Name and addresses of the client

Name	
Address	
District	
Telephone	
Mobile Phone	
Email	

2. Land related to this application

Name of landowner where the works and use of water occurs or will occur

_____

Address of landowner _____

Property regime of land: ( ) Freehold ( ) Customary tenure ( ) Lease ( ) Public Land

If leasehold, indicate: Plot No. _____

If freehold, indicate: Plot No. _____

Location of land where works and use of water occurs or will occur

_____

District _____ Area of that land _____ (in hectares)

3. Nature of discharge

State the nature of discharge: (tick one or more boxes as appropriate)

( ) Sewage effluent ( ) Emergency discharge of sewage effluent

( ) Trade waste ( ) Any other matter (inc. contaminated surface water)

(Specify) _____

For sewage and trade wastes and emergency discharges—

(a) maximum quantity it is proposed to discharge in one day _____ (m3/day)

(b) highest rate at which it is proposed to operate the discharges _____ l/sec.

(c) periods during which discharge will take place_____

For rainfall dependent discharges, state the area to be drained _____ m2

Identify roof areas and other impervious areas_____

4. Means of discharge

Indicate proposed means of discharge:

( ) Pipe ( ) Brook ( ) Borehole ( ) Soakaway ( ) Well ( ) Culvert ( ) Subirrigation system

( ) Soakaway and subirrigation system ( ) Other (specify) _____

5. Technical details of the discharge

Give details as appropriate—

(a) For pipes, channels, wells and boreholes—

Diameter _____ millimetres Dimension(s) _____ (m)

(b) For subirrigation systems, soakaway pits, wells and boreholes—

Depth _____ metres Geological stratum (if known) _____

(c) For boreholes—

Type of lining _____ Depth of lining _____ (m)

Depth of perforated lining _____ (m)

Depth of unperforated lining _____ (m)

6. Receiving water body/land

Water to which waste will be discharged directly. (✔ *Tick the category to which the proposed discharge(s) are to be made*)

( ) River or stream ( ) Onto land ( ) Canal ( ) Directly into groundwater ( )

Lake or pond ( ) Into land and watercourse ( ) Into land (not discharging to a river or stream)

State name of watercourse (if known) _____

Is there a foul sewer available to which the discharge could be made?

( ) Yes ( ) No If yes, give reason for not connecting _____

Distance from nearest foul sewer _____ (m)

7. Sampling of discharge

Authority will normally be required for the taking of samples of the discharge.

(Please indicate the sampling points proposed.)

( ) At the outlet ( ) At the manhole or sampling chamber ( ) See plan ( ) Other (give further details)

8. Other information

Is permit required for limited period? ( ) Yes ( ) No

If yes, give relevant dates _____

On what date do you anticipate the discharge will begin to be made _____

Does this proposal replace an existing discharge? ( ) Yes ( ) No

If yes, give details _____

Are there any existing consents for discharge from the premises? ( ) Yes ( ) No

If yes, give details, numbers if known _____

Please give the details of the premises. (Tick as appropriate)

( ) Vehicle parking area ( ) Industrial premises ( ) Fish farm ( ) Mineral workings

( ) Sewage treatment works ( ) Water supply ( ) Other (specify) _____

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Note—

(1) You must ensure to provide the information on Part A, B, C or D.

(2) A permit is required for each separate discharge. If you currently discharge or propose to discharge from more than one point, separate application forms must be filled for each discharge.

(3) The Authority will return one form to the applicant authenticated with the official seal.

(4) You must attach a copy of bank cash deposit slip or cheque amounting to _____ Malawi Kwacha for processing your application and deposit to the National Water Resources Authority designated bank account or send them to:

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907 , Email: nwrasec@gmail.com

The Authority may require you to advertise this application at your cost in a way specified by the Authority.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

Part A-Application for a Waste Discharge Permit

To be completed in triplicate.

In the case of subirrigation systems and soakaways—

(a) Is any part of the system within ten metres of the site boundary? ( ) Yes ( ) No

(b) Is any part of the system within ten metres of a watercourse? ( ) Yes ( ) No

(c) Is the land in which the disposal system is to be constructed under drained with land drains discharging to a watercourse or to be so drained? ( ) Yes ( ) No

(d) If the answer to either (b) or (c) is yes, please state the name of the watercourse or sufficient information to identify it _____

(e) Attach details of the percolation test carried out.

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Part B-Application for an Effluent Discharge Permit

To be completed in triplicate.

For sewage treatment plants—

(a) State the population served/population equivalent/estimated population—

All year _____

Wet season _____

Dry season _____

(b) Give details of the treatment plant to be used. Attach extra sheets if necessary.

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names _____ Date _____

Part C-Application for an Effluent Discharge Permit

To be completed in triplicate.

For trade wastes and sewage discharges containing trade wastes—

(a) Describe the process(es) from which the waste arises and the characteristics of the trade waste including the maximum, minimum and mean values of COD, BOD and SS of the waste.

(b) Maximum temperature of the waste discharged _____

(c) Electrical Conductivity: _____

(d) Does the waste contain any of the following? ( ) Yes ( ) No

If yes, tick those present and give full details separately (including maximum, minimum and mean values)

Element	✔	Element	✔
Aldrin		Flucofuran	
Arsenic		Hexachlorobenzene (HCB)	
Atrazine		Lead	
Azinphos-ethyl		Malathion	
Azinphos-methyl		Mercury and its compounds	
Boron		Nickel	
Cadmium and its compounds		Parthon	

Carbon tetrachloride		Parathion methyl	
Chloroform		PCSD's	
Chromium		Pentachlorophenol (PCP) and its compounds	
Copper		Perchloroethylene	
Cyanide		Sulcofuron	
Cyfluthrin		Tetrachloroethylene	
DDT		Tributyltin compounds	
1.2-Dichloroethane		Trichlorobenzene	
Dichlorvos		Trichloroethane	
Dioxins		Trichloroethylene	
Endosulfan		Trifluralin	
Fenitrothion		Triphenyltin compounds	
Fenthion		Uranium	

(e) Give details of any other significant chemical components contained in the waste, especially of any wastes containing chemical components controlled under the Environment Management Act or any other law in force (attach separate sheet).

Prescribed trades and premises

Airports	**Hospitals**	**Sewerage treatment plants**
Breweries	Leather tanning factories	Soap factories
Coffee factories	Meat processing factories	Soft drink manufacturers
Commercial fish farms	Mineral extraction and processing	Steel rolling mills
Domestic	Mines and processors	Sugar factories
Fish processing factories	Oil factories	Textile factories
Fruit and vegetable processing factories	Plastic manufacturers	Other (specify)
Slaughtering works (as may be identified by the Authority)		

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Part D-Application for a Waste Discharge Permit

To be completed in triplicate.

For emergency discharges and contaminated surface waters—

State the type of discharge. Tick one or more boxes as appropriate:

Emergency overflow from sewer ( ) Answer all except 3

Emergency overflow from pumping station ( ) Answer all except 2

Contaminated surface water ( ) Answer 4, 7

Other ( ) Answer as appropriate

If other, please give further details:

1. (a) State average flow to pumping station/in sewer (in m3/day or l/s)

   (b) State maximum flow to pumping station/in sewer (in m3/ day or l/sec.)

2. Expected frequency of operation per year

3. State volume of wet well (m3)

4. What provisions have been made to raise alarms? (e.g., telemetry)

5. What facilities have been provided to prevent the discharge of gross solids? (For screens give bar spacings or aperture)

6. What provisions have been included to deal with—

   (a) Power failure?

   (b) Mechanical breakdown?

   (c) Rising main failure?

7. What facilities have been provided for flow measurements?

8. Are there any other factors to be taken into account?

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made pursuant to this application until I receive a notification from the Authority that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

NINTH SCHEDULE FORM 1
WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

STANDARDS AND GUIDELINES FOR WATER QUALITY AND EFFLUENT DISCHARGE

(1) Standards for domestic/sewage effluents discharged into inland surface waters

Parameter	**Max Allowable (Limits)**
Arsenic as As (mg/1)	0.1
Biochemical Oxygen Demand (BOD 5 days at 20 °C) (mg/1)	20
Cadmium as Cd (mg/1)	1.0
Chemical Oxygen Demand (COD (mg/1)	60

Chromium as Cr (mg/1)	Less than 0.01
Lead as Pb (mg/1)	Less than 0.01
Oil and grease (mg/l)	2.5
pH (Hydrogen ion activity)	5.0-9.0
Phenols, total (mg/1)	0.05
Sulphide as S (mg/1)	2.0
Total Suspended Solids, (mg/1)	30
Temperature (in degrees Celsius) based on ambient temperature	± 5
Cyanides as CN (mg/1)	Less than 0.2
Nickel as Ni (mg/1)	Less than 2.0
Detergents (ABS) (mg/1)	Less than 5.0
Mercury as Hg (mg/1)	Less than 0.01
Total Phosphorus as P (mg/1)	2.0
Total Nitrogen as N (mg/l)	10
Total pesticide residues	Absent

(2) Standards for Industrial effluents discharged into inland surface waters

Parameter	**Max Allowable (Limits)**
Total Suspended Solids, mg/l	30
Particle size of Total Suspended Solids, mg/l	Shall not pass 850 micron
Total Dissolved Solids, mg/l	500
Total Residual Chlorine, mg/l	1.0
pH value	6.5-9.0
Temperature (in any section of the receiving water body within 15 metres downstream from the effluent outlet) 0C	40
Biochemical Oxygen Demand for 5 days (BOD5) at 20 0C, mg/l	20
Chemical Oxygen Demand (COD), mg/l	60
Oils and grease and other liquids immiscible with water, mg/l	2.5
Colour, TCU	25
Turbidity, NTU	25
Effluent volume/day, m3	5.0
Radioactivie materials (Bq/l):	
Alpha emitters,	37 Bq/l
Beta emitters	3.7 Bq/l
Insectcides	
Organochloride, mg/l	0.10
Organophosphates, mg/l	0.20
Carbonates, mg/l	0.50
Ammonia Nitrogen, mg/l	10
Sulphates, mg/l	800
Nitrates, mg/l	50

Nitrites, mg/l	1.0
Cyanides (as CN), mg/l	0.05
Sulphides (as S), mg/l	2.0
Fluorides, mg/l	2.0
Arsenic, mg/l	0.05
Cadmium, mg/l	0.01
Total Chromium, mg/l	0.05
Bromides, mg/l	8.0
Copper, mg/l	2.0
Lead, mg/l	0.05
Mercury, mg/l	Nil
Nickel, mg/l	0.01
Selenium, mg/l	Nil
Zinc, mg/l	5.0
Phosphates, mg/l	0.15
Inorganic compounds, mg/l	0.01

(3) Standards for Drinking Water Delivered from Boreholes and Protected Shallow Wells

Parameter	**Max Allowable (Limits)**
Chemical requirements	
Aluminium as Al, mg/l	0.50
Arsenic as AS, mg/l	0.05
Barium as Ba, mg/l	0.70
Cadmium as Cd, mg/l	0.01
Chromium as Cr, mg/l	0.01
Cyanide as Cn, mg/l	0.07
Copper as Cu, mg/l	2.0
Fluoride as F, mg/l	6.0
Iron as Fe, mg/l	3.0
Lead as Pb, mg/l	0.05
Manganese as Mn, mg/l	1.5
Nitrate, NO3, mg/l	45
Sulphate as SO42, mg/l	800
Zinc as Zn, mg/l	15
Uranium, mg/l	0.03
Physical and Micro Constituent Characteristics	
Colour, TCU	50
Turbidity, NTU	25
Electrical Conductivity, µs/cm at 200C	3,500
pH Value	6.0-9.5
Calcium, mg/l	250

Total Hardness as CaCO3, mg/l	800
Chloride, mg/l	750
Magnesium, mg/l	200
Sodium, mg/l	500
Total Dissolved Solids, mg/l	2000
Microbiological Characteristics	
Total coliform, count/100ml	50
Faecal (Thermotolerant) coliforms, count/100ml	50
Faecal streptococci, Count/100ml	0
Colony counts, Count/ml at 220C	100

(4a) Standards for Treated Drinking Water

Parameter	**Max Allowable (Limits)**
Physical and organoleptic requirements	
Colour, mg/l	5-10
Electrical Conductivity at 250C, ms/m	70-150
Total Dissolved Solids, mg/l	450-1000
Odour, TON	1-5 or (odourless)
pH value at 250C	5.0-9.5
Turbidity, NTU	0.10-1.0
Chemical requirements of micro-determinants	
Ammonia as N, mg/l	0.20-1.0
Calcium as Ca, mg/l	80-150
Chloride as Cl, mg/l	100-200
Fluoride as F, mg/l	0.70-1.0
Magnesium as Mg, mg/l	30-70
Potassium as K, mg/l	25-50
Sodium as Na, mg/l	100-200
Sulphate as SO42-, mg/l	200-400
Zinc as Zn, mg/l	3.0-5.0
Chemical requirements of micro-determinants	
Aluminium as Al, µg/l	150-300
Arsenic as As, µg/l	10-50
Cadmiun as Cd, µg/l	3-5
Chromium as Cr, µg/l	50-100
Cobalt as Co, µg/l	250-500
Copper as Cu, µg/l	500-1000
Cyanide as CN, µg/l	30-50
Iron as Fe, µg/l	10-200
Lead as Pb, µg/l	10-50
Manganese as Mn, µg/l	50-100
Mercury as Hg, µg/l	1-2
Selenium as Se, µg/l	10-20
Uranium, mg/l	0.03

Chemical requirements- organic determinants

Total Trihalomethanes, µg/l*	100-200
Phenols, µg/l	5-10

(a) The limits given are based on aesthetic aspects

(b) No primary health effect – low pH values can result in structural problems in the distribution

* This is a suggested value because trihalomethanes have not been proven to have any effect on human health

(4b) Standards for Treated Drinking Water- Microbiological requirements

1	2	3	4	5
		Allowable compliance contribution		
Determinants	**Units**	**95% of sample min**	**4% of sample max**	**1% of sample max**
		Upper limits		
Total coliform	Count/100ml	Not detected	10	100
Faecal coliformb	Count/100ml	Not detected	1	10
E.colib	Count/100ml	Not detected	Not detected	1

(a) The allowable compliance contribution shall be at least 95% to the limits indicated in column 3 with a maximum of 4% and 1%, respectively, to the limits indicated in column 4 and column 5. The objective of disinfection should, nevertheless, be to attain 100% compliance to the limits indicated in column 3.

(b) In most instances it will not be necessary to conduct both these tests; one or the other will normally suffice as the required indicator

(4c) Standards for Treated Drinking Water- Minimum frequency of sampling- Microbiological Test

Population Served	**Frequency min**
More than 1,000,000	10 every month
25,001-1,1,000,000	10 every month
10,001-25,000	3 every month
2,500-10,000	2 every month
Less than 2,500	1 every month

(4d) Guidelines for Irrigation Water

Water Class	**SAR**	**EC (µS/cm)**	**TDS (Gravimetric ppm)**	**Boron, mg/l**		
				Sensitive Crops	**Semitolerant Crops**	**Tolerant Crops**
Class 1, Excellent	1-10	<250	175	<0.33	<0.67	<1.00
Class 2, Good	10-18	250-750	175-525	0.33-0.67	0.67-1.33	1.00-2.00
Class 3, Permissible	18-26	750-2000	525-1400	0.67-1.00	1.33-2.00	2.00-3.00
Class 4, Doubtful	>26	2000-3000	1400-2001	1.00-1.25	2.00-2.50	3.00-3.75
Class 5, Unsuitable	>26	>3000	>2001	>1.25	>2.50	>3.75

(4e) Guidelines for Recreational Water Quality -

Parameter	Guideline
Total coliform bacteria	<500/100 ml
Escherichia coliform	<200/100 ml
Enterococci	<35/ 100 ml
pH	5.0 - 9.0
Arsenic	0.05mg/L
Cadmium	0.01mg/L
Chromium	0.1mg/L
Radiation, Total	0.37Bq/L
Turbidity	50 NTU
Clarity (light penetration)	Secchi disc visible at a depth of 1.2M
Colour	100 (true colour units
Oil/grease	5.0 mg/L
Odour (Threshold Odour Number)	16

TENTH SCHEDULE **FORM C5**

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

EFFLUENT DISCHARGE PERMIT

To be completed in triplicate

This permit shall not be taken as providing a statutory defence against a charge of pollution in respect of any poisonous, noxious or polluting constituents not specified in the permit. In addition to the conditions specified in the Act and any other law for the time being in force, this permit is subject to the conditions as stated overleaf:

General

Permit No:_____

Name and address: _____

This permit is valid for _____years from _____ (date) to _____ (date).

(1) For the purpose of applying the conditions identified in condition 3 below, the discharger shall provide and maintain facilities which enable the Authority's representatives to take flow measurements of the final waste effluent which is discharged to the outlet. The permit holder shall identify the facility with a clearly visible sign, distinguishing it from any other and provide a visible notch, mark or device indicating the level equivalent to the maximum instantaneous permitted flow.

(2) For the purpose of applying condition 4, the permit holder shall provide and maintain facilities which shall enable the Authority's representatives to take discrete or composite samples of final waste effluent which is discharged at the outlet. The discharger shall identify the facility with a clearly visible sign distinguishing it from any other.

(3) The permit holder shall provide to the Authority's satisfaction a drawing showing the precise location of the facilities provided in accordance with subconditions (2) and (3) of the conditions above, not later than one month prior to the date of enforcement of this permit.

(4) Facilities shall be provided for the safe and convenient access to enable the Authority's representatives at any time to take samples, carry out flow measurements and inspection to ensure that the conditions of this permit are complied with.

1. As to outlet (see attached separate sheet).
2. As to the volume and rate of discharge (see attached separate sheet).
3. As to the discharge composition (see attached separate sheet).
4. As to the pretreatment before discharge (see attached separate sheet).
5. As to other conditions (see attached separate sheet).

Name: _____

Date: _____ Signature: _____

Office Stamp: _____

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

ELEVENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM J

APPLICATION FOR CHANGE IN OPERATION OR DISCHARGE

This form should be used to notify the Authority of any proposed changes in operation or discharge which may be relevant or significant as defined in the regulations. The Authority will then determine whether the proposed changes are relevant or significant. You must have received an amended or new permit to discharge before implementing the proposed changes. If you know the changes are significant, then you must apply for and be in receipt of a variation to your existing permit to discharge before implementing the proposed changes. If you fail to notify the Authority of significant or relevant changes, you will be committing an offence under these Regulations and may be liable to a fine or a custodial sentence.

Please complete the relevant sections of this form in triplicate IN BLOCK LETTERS and return it to the Authority.

I/We* notify the Authority of a proposal to modify the operation or discharge currently subject to the existing permit to discharge, Reference No. _____ and request the Authority to determine whether the proposed changes described amount to a significant or relevant change.

Signature of holder: _____ Date _____

Signed on behalf of _____

1. Name and address of holder (or agent for company)—

Full Names: _____

Address: _____

Telephone: _____ Fax: _____ Email: _____

(b) Acting for (company/ public corporation/partnership/cooperative society)*

Address: _____

Address for correspondence if different from above: _____

2. Proposed changes in operation or discharge—

Describe the proposed changes in operation (If necessary attach plans and other information to this notice.)

_____

_____

3. Proposed pretreatment—

Give details of any proposed pretreatment or any modifications to the existing system of pretreatment. (If necessary, attach plans and other information to this notice.)

*Delete what is not applicable.

4. Effect of proposed changes in volume and composition of effluent—

Existing Proposed

(a) Discharge rate

Maximum daily (m3/day) _____

Maximum hourly (litre/sec.) _____

(b) Composition

(Provide details of new raw materials, pollutants, changes in concentration of existing pollutants; attach additional information to this form if necessary)

5. Attachments (List any attachments to this form in the space below.)

I/We* certify that the information provided in this form is complete and correct to the best of my/our* knowledge.

Signed _____ Date _____

When you have completed this form, you should return and you must attach a copy of bank cash deposit slip or cheque for _____ Malawi Kwacha for processing the application and send it to

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907 , Email: nwrasec@gmail.com

together with any attachments indicated above.

The Authority may require further information to inspect your premises to discuss the proposed changes with you, before making a determination as to whether the proposed changes are significant, relevant or not.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

TWELFTH SCHEDULE

WATER RESOURCES ACT

WATER RESOURCES REGULATIONS, 2018

FORM K

NOTIFICATION OF TRANSFER OF PERMIT TO DISCHARGE EFFLUENT

This form should be used to register the transfer of a permit to discharge for an existing discharge to the new owner of the operation to which it applies. If the operation is to change in any way a new permit to discharge must be obtained before the changes can be implemented.

Please complete the relevant sections of this form in triplicate IN BLOCK LETTERS and return it to the Authority within twenty-one days of the transfer.

I/We* notify the authority that the permit to discharge, Reference No. _____ was transferred to new holder on _____

Signature of new holder: _____ Date _____

Signed on behalf of _____

1. Name and address of new holder (or agent for company)—

Full Names: _____

Address: _____

Address for correspondence (if different from above): _____

Telephone: _____ Fax: _____ Email: _____

2. Reasons for transfer—

Please give your reasons for transferring this permit to other persons or company.

_____

_____

Note—

It is an offence under these Regulations to fail to register the transfer of this permit within twenty-one days of the transfer taking place. If you fail to do so you may be subject to a fine or a custodial sentence.

I/We* certify that the information provided in this form is complete and correct to the best of my/our* knowledge.

Date: _____ Signature: _____

When you have completed this form, you should return and you must attach a copy of bank cash deposit slip or cheque for _____ Malawi Kwacha for processing the application and send it to

the Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com together with any attachments indicated above.

The Authority may require further information to discuss the transfer with you, before making a determination as to whether the proposed transfer is acceptable.

Official Use Only

Application No.: _____

Date received: _____

This transfer has been authorized/not authorized.

Name: _____ Signature: _____

Official Stamp: _____

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

THIRTEENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM L

WATER OR WASTEWATER QUALITY SAMPLING PROCEDURES

The procedures to be followed where water/wastewater quality sample is taken for prosecution purposes shall include:

(a) The presence of the alleged polluter at the place and time of sampling;

(b) Where the intended analysis is to determine compliance with physical and chemical parameters,then a sample shall be taken and divided into three portions, each contained in an appropriate capacity container and preserved according to standard practice.

(c) Where the intended analysis is to determine compliance with microbiological parameters, then a sample shall be taken and divided into three portions, each contained in a sterile glass bottle and preserved according to standard practise;

(d) All three portions will be sealed in the presence of the alleged polluter who is required to sign an acknowledgement that he has witnessed the sampling process and the sample(s) collected are representative;

(e) One portion will be provided to the alleged polluter who may obtain his/her own independent analysis from a gazetted laboratory of his/her choice;

(f) One portion shall be sent by the Authority to a gazetted laboratory for analysis; and

(g) One portion shall be retained by the Authority for future reference provided that the storage of the sample is safe enough and the period of storage does not result in the deterioration of the sample.

Types of preservation suitable for different determinants

Determinant	Material of sample container	Method of preservations	Maximum time between sampling and analysis
Calcium	P or G	None needed	7 days
Chloride	P or G	None needed	7 days
Conductivity	P or G	None needed	7 days
Fluoride	P	None needed	7 days
Hardness	P or G	None needed	7 days
Magnesium	P or G	None needed	7 days
Potassium	P	None needed	7 days
Sodium	P	None needed	7 days
Sulphate	P or G	None needed	7 days
Alkalinity	P or G	Refrigeration at 4°C	24 hours
BOD5	G	Refrigeration at 4°C	4-24 hours
Colour	P or G	Refrigeration at 4°C	24 hours
Nitrogen			
Ammonia:		Refrigeration at 4°C	1-7 days
Nitrite		Refrigeration at 4°C	1-7 days
Nitrate		Refrigeration at 4°C	24 hours
Organic	G	Refrigeration at 4°C	24 hours
Odour	G	Refrigeration at 4°C	6-24 hours
Phenols	G	Refrigeration at 4°C	24 hours
Phosphorus:			
Total	P or G	Refrigeration at 4°C	1-7 days
Orthophosphate	P or G	Filter on site, then refrigeration at 4°C	24 hours

Silica	P	Filter on site, then refrigeration at 40C	
COD	G	H2SO4, 1-2 ml/litre of sample	1-7 days
Oil/Grease	G	H2SO4, 1-2 ml/litre of sample	1-7 days
Nitrogen ammonia	P or G	HgC12, 12-40 mg/litre of sample	
Nitrite	P or G	HgC12, 12-40 mg/litre of sample	1-7 days
Nitrate	P or G	HgC12, 12-40 mg/litre of sample	1-7 days
Organic	G	HgC12, 12-40 mg/litre of sample	24 hours
Metals:			
Total metals	P	HNO3, 2-10ml/litre of sample	Many weeks
Dissolved metals	P	Filter on site, then add HNO3, 2-10ml/litre of sample	Many weeks
Mercury	P	HNO3, 5-10ml/litre of sample	7 days
Cyanide	P	Add NaOH to give pH 10-11	7 days
Phenols	G	CuSO4 5H2O), 1g/litre of sample then H3PO4 to give pH 4	24 hours Immediately
Chlorine	G		Analyse as soon as possible, preferably on site Analyse as soon as possible, preferably on site
Dissolved Oxygen	G		
pH	P or G		
Solids:			
Dissolved	P or G		24 hours
Total	P or G		7 days
Turbidity	P or G		
Radiological Tests	P or G	HNO3 to pH<2	4-24 hours
Alpha, beta and radium	P or G		6 months
Pesticides Tests: Pesticides			7 days until extraction, 40 days after extraction

(a) P= Polyethylene; G = Glass

(b) The times quoted are only rough indicators;

(c) The maximum time depends on the type of sample;

(d) Analysis can be started on site and completed in a laboratory

The pH adjustment may be performed upon receipt at the laboratory and may be omitted if the samples are extracted within 72 hours of collection. For the analysis of aldrin, add 0.008% Na2S2O3.

FOURTEENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM M

APPLICATIONS FOR EXEMPTION OF INFORMATION FROM THE PUBLIC REGISTER

This form should be used to apply to the Authority for the exclusion of commercially sensitive information from the public registers on waste discharges.

The completed application form should be submitted to the Authority with the application form for a permit to discharge.

Please complete the relevant sections of this form IN BLOCK LETTERS, attach it to your application for a permit to discharge and return both forms to the Authority.

I/We* request the Authority, under the provisions of these Regulations, to exclude commercially sensitive information from the public register on waste discharges. The information for exclusion and the reasons for exclusion are described below or on the listed attachments.

Signature of Applicant: _____ Date _____

Signed on behalf of _____

1. Name and address of applicant (or agent for company)—

Full Names: _____

Address: _____

Telephone: _____ Fax: _____ Email: _____

Acting for (company /partnership/public corporation/cooperative society)*

Address: _____

Address for correspondence if different from above: _____

2. Commercially sensitive information for exclusion from the register (Please identify specifically the information, included in the application form for a permit to discharge, which you wish to be excluded from the public register):

_____

3. Reasons for exclusion of information from the register (Please provide clear justification for each item of information you wish to be excluded from the public register. (Note - The onus is on the applicant to justify the exclusion of information. If the Authority is not satisfied that your application is justified he will reject your application,):

_____

_____

_____

4. Attachments (Please attach all information, relevant to this application, to this form and list the attachments in the space provided) - (List any attachments to this form in the space below:)

_____

_____

_____

I/We* certify that the information provided in this form is complete and correct to the best of my/our* knowledge.

Date: _____ Signature: _____

Official Stamp: _____

When you have completed this form, you should return and you must attach a copy of bank cash deposit slip or cheque for _____ Malawi Kwacha for processing the application and send it to

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com, together with any attachments as indicated above.

The Authority may require further information, to discuss the exemptions with you, before making a determination as to whether the proposed exemptions are justified.

Official Use Only

Exemption No.: _____

Date received: _____

FIFTEENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM N

PROTECTION AND CONSERVATION OF RIPARIAN AND CATCHMENT AREAS

PART A

Activities proscribed on riparian land are:

(a) tillage or cultivation;
(b) clearing of indigenous trees or vegetation;
(c) building of permanent structures;
(d) disposal of any form of waste within the riparian land;
(e) excavation of soil or development of quarries;
(f) planting of exotic species that may have adverse effect to the water resource
(g) sand mining
(h) open defecation or any other activity that in the opinion of the Authority and other relevant stakeholders may degrade the water resource.

PART *B*

The criteria for requiring a soil and water conservation plan are:

(a) existing condition of the riparian area and the risk of river bank erosion, sources of direct runoff into the water course and sediment sources within the riparian and catchment areas;

(b) slope of the land;

(c) land use and land management practices and the risk of soil erosion and destruction from excessive direct runoff;

(d) presence or otherwise of soil and water conservation structures;

(e) potential water resource pollution arising from the land use;

(f) any other criteria that the Authority considers to be significant.

PART C

The criteria for identifying a protected area or groundwater conservation area are:

(a) catchment characteristics;

(b) the vulnerability of the water resource;

(c) the water resource quality objectives and the current status of the water resource;

(d) the class of the water resource;

(e) water demands, present and projected, on the water resources;

(f) land uses and their potential impact on the water resources;

(g) any other criterion that the Authority considers relevant.

PART D

Contents of management rules or plans related to a protected area or groundwater conservation area may include:

(a) procedures to be applied for the management of the Protected Area or Groundwater Conservation Area;

(b) prohibited activities;

(c) any measures required to be undertaken for water resource conservation and protection;

(d) the timeframe for implementation of required measures; or

(e) any other conditions that the Authority may consider relevant.

SIXTEENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM O

RESPONSE TO VIOLATION OF THE RESERVE

Measures that the Authority may take in relation to a report on violation of the reserve include:

1. Investigation

The Authority may undertake investigations of the violations in order to ascertain the cause and severity of the issue and may also undertake the following activities;

(a) hydrographic and abstraction surveys;

(b) establishing or revising a water allocation plan or an effluent discharge management plan;

(c) informing the public on the condition of the Reserve and any actions that are needed to restore the Reserve; or

2. Orders

The Authority after ascertaining that the violation has taken place, may undertake the following measures/orders:

(a) enforcing any conditions on any approvals, authorisations or permits that may rectify the situation;

(b) advise the Minister that an emergency situation exists and the Reserve is being violated by virtue of natural and or anthropogenic events; and

(c) temporarily suspending or varying permits

SEVENTEENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM P

TECHNICAL REPORTS

The following are guidelines for Technical Reports and compilers are expected to exercise their professional judgment in including other appropriate items in the Technical Report.

Format of Reports

All reports shall be submitted to the Authority in the following format:

1. One original paper hardcopy of all documents, duly signed, and adequately bound together;
2. Two paper copies of all documents;
3. A digital Portable Domain Format (PDF) format of the document and drawings submitted on a Compact Disk or any other appropriate electronic medium.

Format of Drawings

All technical drawings submitted to the Authority shall comply with the following format:

1. One original paper hardcopy of all drawings, duly signed, and adequately bound together;
2. Two paper copies of all drawings;

3. A digital DXF (Digital Exchange Format) format of the technical drawings submitted on a Compact Disk (CD) or other electronic medium as appropriate;

Every plan shall be signed and dated by the person making it, and, if it is made by any person other than the applicant to whom it relates, the application or his /her lawfully authorized agent shall also approve, sign and date it.

Every plan prepared by a qualified professional shall have endorsed thereon a certificate in the following form:-

CERTIFICATE

I/We* ..... of ..... hereby certify that this plan was made by me/us* [or under my/our* direction] and that it correctly represents the places, lands, areas and works shown thereon.

.....
Qualified Professional(s)

All reduced levels shown on any plan, or set of plans, longitudinal sections cross sections of any work or works shall be to the same datum, and reference shall be made on at least one sheet of any set of plans, longitudinal sections or cross sections indicating the datum used, and also the positions of all bench marks, which shall be properly located and described on the general map (and which bench marks one shall be in the immediate vicinity of the point of diversion, abstraction or storage), from which the datum may be gained.

The location of the datum shall be described by the Grid Reference in UTM Coordinates based on the World Geodetic System (WGS) 1984 datum. The nature of the datum shall be adequately described.

Format of Maps and Drawings

All technical drawings and maps submitted to the Authority shall comply with the following format:

1. A digital Tagged Image File Format (TIFF) format of the maps submitted on a CD, or other appropriate media

Site Assessment Report

A Site Assessment Report shall substantially provide the following details:

1. Name and details of Applicant;
2. Description of Proposed Activity
3. Confirmation of Site details;
4. Relevant hydrological features;
5. Relevant riparian and catchment features;
6. Recommendations;

Hydrological Assessment Report

1. Name and details of Applicant.
2. Location and Description of Proposed Activity.
3. Details of Climate.

4. Details of river or water body (name, nearest Regular Gauging Station, Sub-catchment).
5. Details of catchment (area, slopes, soils).
6. Details of vegetation and land use.
7. Details of Registered and Non registered Abstraction on the resource.
8. Details of all other permits related to this application.
9. Hydrological characteristics and analysis (annual, monthly, extreme events, flow duration or probability of events occurring).
10. Hydrochemistry.
11. Analysis of the Reserve.
12. Assessment of availability of flow.
13. Impact of proposed activity on flow regime, water quality, other abstractors.
14. Recommendations on Proposed Activity.

Hydrogeological Assessment Report

1. Name and details of applicant.
2. Location and description of proposed Activity.
3. Details of climate.
4. Details of geology and hydrogeology.
5. Details of neighbouring boreholes, including location, distance from proposed borehole or boreholes, number and construction details, age, current status and use, current abstraction and use.
6. Description and details (including raw and processed data) of prospecting methods adopted, e.g. remote sensing, geophysics, geological and or hydrogeological cross sections Hydro-geological characteristics and analysis, to include but not necessarily be limited to, the following:
   (a) Aquifer transmissivity;
   (b) Borehole specific capacities;
   (c) Storage coefficient and or specific yield;
   (d) Hydraulic conductivity;
   (e) Groundwater flux;
   (f) Estimated mean annual recharge, and sensitivity to external factors.
7. Assessment of water quality and potential infringement of National standards
8. Assessment of availability of groundwater;
9. Analysis of the reserve
10. Impact of proposed activity on aquifer, water quality, other abstractors, including likelihood of coalescing cones of depression and implications for other groundwater users in any potentially impacted areas.
11. Recommendations for borehole development, to include but not limited to, the following:

(a) Locations of recommended borehole(s) expressed as a coordinate(s) and indicated on a sketch map;

(b) Recommendations regarding borehole or well density and minimum spacing in the project area;

(c) Recommended depth and maximum diameter;

(d) Recommended construction characteristics, e.g. wire-wound screen, grouting depth;

(e) Anticipated yield.

12. Any other relevant information (e.g. need to monitor neighbouring boreholes during tests)

Effluent Discharge Management Plan

1. Name and details of applicant.
2. Quantity and quality of inflow water.
3. Type and source of effluent.
4. Design of Effluent treatment plant.
5. Location and description (frequency, quantity, quality and nature) of effluent.
6. Description of treatment and operations, if any.
7. Hydrology, hydrogeology and hydrochemistry of receiving water body.
8. Impacts on receiving water body in terms of quantity and quality.
9. Proposed water quality requirements for the permit and the timeframe for achieving compliance.
10. Monitoring programme, (measuring device, controlling device, sampling, records, reporting procedures).
11. Emergency plan for accidental discharges and their risks.

Water Quality and Pollution Control Assessment Report

1. Name and details of applicant.
2. Location and description of activity or proposed activity.
3. Details of river or water body (name, nearest Regular Gauging Station, Sub-catchment).
4. Details of flow regime.
5. Nature and characteristics of effluent.
6. Impact of effluent upon water resource and other water users.
7. Other sources of pollution in the project area.
8. Conclusions and recommendations.

Technical Design Report

1. Name and details of Applicant.
2. Description of Proposed Activity.
3. Analysis of Demand.
4. Details of Hydrological Assessment.

5. Details of Structures to be built.
6. Details of Equipment to be installed.
7. Details of Controlling Device.
8. Details of Measuring Device.
9. Details of operating procedures.
10. Details of safety devices.

Dam Design Report (for Very Small, Small, Medium and Large Dams)

1. Details of Location.
2. Details of Hydrological Assessment.
3. Details of Geotechnical Investigations
4. Details of Embankment.
5. Details of Reservoir.
6. Details of Draw-off and Compensation Works.
7. Details of Spillway(s).
8. Details of Ancillary Structures.
9. Details of Construction Materials.
10. Details of Construction Framework.
11. Details of Operational Regulations.
12. Procedures to notify and protect downstream inhabitants, infrastructure and environments.
13. Schedule of Inspection and Maintenance.
14. Assessment of Impacts and Risks.

Dam Operation Report

1. Basic Summary of Technical Details.
2. Details of Management Structure for Dam Operations.
3. Details of Operational and Release Regulations.
4. Details of Operation and Maintenance Systems.
5. Procedures to notify and protect downstream inhabitants, infrastructure and environments.
6. Schedule of Inspection and Maintenance.

Dam Completion Report

1. Changes and explanation for differences between As-Constructed and design details.
2. As-constructed Drawings.
3. Summary of As-Constructed Details.

Dam Inspection Report

1. Current condition of dam with respect to approved design and "as-constructed" condition.

2. Any action required to restore the functional and structural integrity of the dam to the required state.
3. Any changes with regard to the risk of or impact in the event of dam failure.
4. Review appropriateness of the action plan in event of dam failure.

Dam Damage or Failure Report

1. Details of location.
2. Date and time of dam failure or damage.
3. Preceding climate.
4. Preceding hydrology.
5. Cause of dam failure or damage.
6. Steps taken to notify downstream inhabitants.
7. Nature and extent of damage caused to the dam or caused by the dam failure.

Progress Report

1. Name and details of applicant.
2. Description of proposed Activity.
3. Details of Authorization including the time frame.
4. Cause of delay.
5. Revised timeframe for completion.

Soil and Water Conservation Plan

1. Existing Soil and Water Conservation structures and practices.
2. Potential sources of sediment and other pollutants to the water course.
3. Slope of land.
4. Land use.
5. Condition of the riparian land.
6. Proposed Measures and Targets for Improved Soil and Water Conservation.
7. Targets and timeframe for adoption and implementation of proposed Soil and Water Conservation structures and practices.
8. Schedule of Inspection of the Soil and Water Conservation Plan.
9. Site sketch showing-
   (a) demarcation of boundaries of land covered under the Soil and Water Conservation Plan;
   (b) identification of significant features.

Catchment Management Strategy

A description of the institutional framework for water resource management detailing institutional roles and responsibilities.

A strategy for the conservation of the catchment and riparian areas.

A water resource development strategy capturing the need for improved water resource reliability and availability to meet current and future demands and to address poverty alleviation targets.

A stakeholder participation strategy that will include mechanisms for encouraging the formation and establishment of Water Resource Users Associations and strengthening them once established.

A communication strategy that will capture the communication needs and mechanisms for the catchment.

A water resource monitoring strategy that will capture the resource monitoring network and flow prediction targets.

A compliance strategy that will detail the timeframe, approaches and requirements to bring water users into compliance with water management regulations.

A water demand management strategy that will capture approaches and targets for improving water allocation and use efficiencies.

A Water allocation plan detailing:

1. A description of the class of resources and their resource quality objectives.
2. An analysis of current and future water demands.
3. Allocation of the resource to the Reserve and to different types of uses.
4. Measures to be taken to ensure that water use approvals remain true to the allocations.
5. Measures to be taken when resource availability is limited.
6. A compliance plan.
7. An enforcement plan.
8. Mechanisms for reviewing the allocation plan from time to time as the need arises.

*Delete whichever is inapplicable

EIGHTEENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM Q

QUALIFIED PROFESSIONALS AND CONTRACTORS

PART A

Categories of qualified professionals

Panel I - Water Engineer

A Water Engineer shall have the following qualification and experience:

(a) At least a Bachelor's Degree in Civil Engineering or equivalent.

(b) At least 5 years' experience in undertaking any of the following assignments:

i. Water Supply Works (exceeding 1,000 m3/day)

ii. Effluent Treatment Works (exceeding 1,000 m3/day)
iii. Dams (Very small and Small dams)
iv. Irrigation Works (exceeding 7,500 m3/day)
v. Hydropower works (up to 1 Megawatts)

Panel II – Registered Civil Engineer

A Registered Civil Engineer shall have the following qualification and experience:

(a) At least a Bachelor's Degree in Civil Engineering or equivalent.
(b) Registered with recognized and relevant professional body
(c) At least 15 years' experience in undertaking any of the following assignments:
    i. Water Supply Works (more than 1,000 m3/day)
    ii. Effluent Treatment Works (less than 1,000 m3/day)
    iii. Dams (Small dams to medium dams)
    iv. Irrigation Works (more 7,500 m3/day)
    v. Hydropower works (exceeding 1 megawatts)

Panel III- Professional Dam Experts

The Dam Experts shall be Registered Engineers with the following qualification and experience:

(a) At least a Bachelor's Degree in Civil, Structural, Geotechnical or Hydraulic Engineering.
(b) At least 15 years' experience in undertaking any of the following assignments:
    i. Design of medium to large dams;
    ii. Supervision of construction of medium to large dams; and
    iii. Dam safety reviews/inspection of medium to large dams.

Panel IV- Hydrologist, Hydrogeologist and Hydro meteorologist

A Hydrologist, Hydrogeologist and Hydrometeorologist shall have the following qualification and experience:

(a) At least a Bachelor's Degree in Civil Engineering, Geology, Geography (with a physical science base), Environmental Science, Earth Science, Meteorology, Atmospheric Science or Environmental Management
(b) At least 5 years' experience in undertaking any of the following assignments
    i. Analysing, monitoring and forecasting weather, climate variability and change
    ii. Collecting data from satellite images, radar, remote sensors and weather stations all over the world
    iii. Designing and completing an investigation, which may include environmental measurement and sampling or an ongoing monitoring regime, in order to confirm or develop the model
    iv. Identification of a new water supply sources, siting new wells and protecting water supplies from pollution
    v. Designing and commissioning boreholes, and sampling and measuring groundwater and surface water;

Panel V- Water Chemist

A Water Chemist shall have the following qualification and experience:

(a) At least a Bachelor's Degree in Chemistry, Education Science (with a major in Chemistry, Physical Science), Biology (with a major in Biochemistry), Environmental Science, Environmental Management or Environmental Technology.

(b) At least 5 years' experience in undertaking any of the following assignments:

i. Analysing and treatment of water

ii. Management of a water chemistry laboratory

Panel VI- Water Resources Manager

A Water Resources Manager shall have the following qualification and experience:

(a) At least a Bachelor's Degree in Water Resources Management, Integrated Water Resources Management, Environmental Management or Natural Resources Management

(b) At least 5 years' experience in undertaking any of the following assignments:

i. Planning, coordination, management and evaluation of water resources development projects

ii. Planning and coordination of catchment management activities

Panel VII- Environmental Scientist, Biologist and Ecologist

An Environmental Scientist, Ecologist and a Biologist shall have the following qualification and experience:

(a) At least a Bachelor's Degree in Environmental Science, Environmental Management, Environment Technology, Ecology, Biology or Education Science (with a major in Biology).

(b) At least 5 years' experience in undertaking any of the following assignments:

i. Perform program research, planning and development, permitting, compliance monitoring, inspections/enforcement, and technical support services in relation to air, water, waste, federal facilities, corrective action, mining, biology, and other environmental programs

ii. Conducting field work to investigate the nature and extent of soil, sediment, groundwater and other media contamination

iii. Capable of carrying out environmental and social impact assessments for water resources related projects

PART B

Categories of qualified contractors

Category 1: MK5,000,000
Category 2: MK15,000,000
Category 3: MK50,000,000
Category 4: MK100,000,000
Category 5: MK200,000,000
Category 6: MK1 billion
Category 7: unlimited

NINETEENTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM R

PARTICULARS IN A REGISTER

An entry into the register concerning any licence or a permit granted shall include—

(a) the name of the person or company who has registered or to whom the permit has been granted;

(b) the address of the person or company who has registered or to whom the permit has been granted;

(c) the location of the discharge point;

(d) the name of the district where the discharge occurs;

(e) the name of the waterway in which the discharge is made;

(f) the number of the relevant description of discharge chemical content of water (waste water) discharge;

(g) land related to the discharge;

(h) the nature of discharge;

(i) the means of discharge;

(j) the frequency and capacity of discharge;

(k) the permit number;

(l) the duration of the permit;

(m) the expiry date of the permit;

(n) the authority that granted the permit;

(o) the registration folio of the permit;

(p) the date of registration;

(q) the authority that registers the licence or permit;

(r) any significant changes to the status of the permit;

(s) any relevant conditions attached to the permit.

TWENTIETH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM S

EMERGENCY ORDERS

Contents of an emergency order shall include:

(a) that an emergency exists;

(b) start date of the Emergency Order;

(c) the factors that have caused the emergency

(d) what area or water resource(s) are affected

(e) what action or activities are restricted or prohibited

(f) what action or activities will be undertaken; and

(g) conditions that need to be fulfilled for the Emergency Order to be lifted.

(f) declaration by the Minister

TWENTY FIRST SCHEDULE

WATER RESOURCES ACT

(CAP.72:02)

WATER RESOURCES REGULATIONS, 2018

FORM T

APPLICATION FOR AN EASEMENT

To be completed in triplicate.

Complete this form if you have been unable to agree with a neighbour upon an easement over his /her land.

1. Names and addresses of client

Name	
Address	
District	
Telephone	
Mobile Phone	
Email	

2. Location of land

Name of landowner which will benefit from the easement _____

Address of that owner _____

District _____

Property regime of land:

( ) Bona fide occupants ( ) Customary ( ) Leasehold ( ) Freehold

If leasehold, indicate Plot No. _____

If freehold, indicate Plot No. _____

Location of land where easement is sought_____

District _____ Area of that land _____ (in hectares)

3. Source of water

Select the source of water from or to which you wish to take water—

( ) River ( ) Lake ( ) Channel ( ) Dam ( ) Stream ( ) Lagoon ( ) Ditch ( ) Dry riverbed

( ) Swamp ( ) Wetland ( ) Borehole ( ) Dug well ( ) Spring Other (specify) _____

Common name of the source of water _____

Specific point where the water is or will be taken (UTM coordinates)_____

District where the water uptake is located (when applicable) _____

Give details of any water permit you hold to take water from this source

_____

(Attached a topographic map 1:50,000, indicating location of the intake works, the layout of the works, land which will benefit from the easement, land over which easement is sought.)

4. Easement

Why do you require the easement? _____

_____

What form will the easement take? (e.g., right-of-way, to construct a pipeline or channel)

_____

What works, if any, do you want to construct on that land? _____

_____

For how long would you want the easement? _____

5. People affected

Give the number of the certificate of title for the land over which the easement is sought

_____

Give the names and addresses of all people whom you know can claim an interest in that land _____

_____

Which of these people have refused to grant you an easement? _____

(Please enclose copies of any relevant correspondence.)

6. Accompanying information

Please list all maps, plans or other documents enclosed with this application.

Declaration of the Applicant

I certify that the information provided in this form is correct to the best of my knowledge. I also agree that no decision will be made nor action taken with respect to this application until I receive a notification from the Authority of water development that I have provided all the necessary information.

Signature of Applicant: _____

Full names: _____ Date _____

Note - When you have completed this form and the appropriate attachments, you must attach cash deposit slip or cheque amounting to _____ Malawi Kwacha for processing the application and send them to:

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

The Authority may require you to advertise this application at your cost in a way specified by the Authority.

For Official Use Only

Date of receipt of the application: _____

Application number: _____

Name of the officer receiving the application: _____

Designation: _____

Signature: _____

Official stamp: _____

TWENTY SECOND SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

CERTIFICATE OF AN EASEMENT

To be completed in triplicate.

Permit No. _____

Name and address _____

_____

You are granted an easement under section 64 of the Act and regulation 173. Description of the benefitted land:

_____

_____

_____

Description of the burdened land (district, traditional authority, village, volume/block, folio number/plot number) _____

_____

_____

Name of owner _____

Address of owner _____

Nature of burden imposed on burdened land _____

This permit shall be valid from (date) _____ to (date) _____

This permit is subject to the following conditions—

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Date: _____ Signature: _____

Official Stamp _____

The Executive Director, National Water Resources Authority, Private Bag 363, Lilongwe 3, Telephone: +265 (0) 111 647 907, Email: nwrasec@gmail.com

TWENTY THIRD SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM U

FEES, CHARGES AND PENALTIES

PART A **FEES**

1. New application, Renewal, Variation and Cancellation

Description of Activity	**Fees (MK)**
Application for registration of existing right	80,000
Application for Groundwater Licence	80,000
Application for Surface Water licence	80,000
Cancellation of Surface Water Licence	80,000
Cancellation of Groundwater Licence	80,000
Renewal of Groundwater Licence	200,000
Renewal of Surface Water Licence	200,000
Variation of Surface Water Licence	80,000
Variation of Ground Water Licence	80,000
Transfer of Surface Water Licence	80,000
Transfer of Ground Water Licence	80,000
Search of Licence	40,000
Application for Effluent Discharge Permit	80,000
Effluent Discharge Permit	400,000
Renewal of Effluent Discharge Permit	200,000
Variation of Effluent Discharge Permit	80,000
Transfer of Effluent Discharge Permit	80,000

Search for Effluent Discharge Permit	40,000
Application for Drilling Licence	80,000
Application for Construction Licence	80,000
Drilling Licence	400,000
Construction Licence	400,000
Renewal of Drilling Licence	200,000
Renewal of Construction Licence	200,000
Variation of Drilling Licence	80,000
Variation Construction Licence	80,000
Transfer of Drilling Licence	80,000
Transfer of Construction Licence	80,000
Search of Drilling Licence	40,000
Search of Construction Licence	40,000
Authority Order	None
Authority to Enter Land	20,000
Supplement to Licence/Permit	40,000
Application for Qualified Professional	120,000
Issuance of Licence as Qualified Professional	8,000
Application for registration as Qualified Contractor	200,000
Issuance of Licence as Qualified Contractor	120,000
Annual Licence Fee for Qualified Water Resource Professional	80,000
Annual Licence Fee for Qualified Contractor	120,000
For re-issue of or alteration to Authorizations, Permits, and Licences	80,000
Application for Easement	80,000
Advertisement Fees for Applications	10,000
Easement	200,000

2. Fees for Data, Investigations, Laboratory Analysis and Related Services

2.1 Data

Item	Category	Description	Unit	Rate (MK)
1	Groundwater Data	Basic data (Static Water Level, first Water Strike Depth, Yield, Borehole Depth) up to a maximum of 10 boreholes	Per station year	2,000
2	Hydrological Data	Rainfall	Per station year	10,000 or as per Met rates
		Other climatic parameters	Per station year	2,000
		Water level	Per station year	2,000
		Discharge	Per station year	2,000
		Sediment load	Per station year	2,000
3	Water Quality Data	All parameters (up to a max of 10)	Per station year	10,000

2.2 Technical Reports

Item	Category	Cost (MK)
1	Thematic maps & reports	5,000
2	Digital Maps	20,000
3	Copy of Register of Associations	10,000
4	Copy of Register of Water Bodies	2,000
5	Copy of Register of Licences or Permits	5,000
6	Copy of Register of Qualified Water Resources Professionals or Qualified Contractors	1,000
7	Borehole Completion Report including test pumping and water quality data	5,000
8	Bill of Quantities/Tender Documents	5,000
9	Year Book	20,000
10	Water Resources Technical Reports/Publications	20,000

2.3 Investigation

Item	Category	Description of activities	Rate	Amount (MK)
1	Groundwater	Hydrogeological Assessments	Per field trip and need	Per standing instructions
2	Surface water	Water Resources Assessments	Per field trip and need	Per standing instructions
3	Water Quality	Water Quality Assessments and Analysis	Per field trip and need	Per standing instructions
4	NWRA	Inspection of water rights and payments	Per field trip and need	Per standing instructions

2.4 Equipment

Item	Type	Rate	Amount (MK)
1	Dozer	As per PVHES prevailing rate	
2	Excavator	As per PVHES prevailing rate	
3	Drilling Rig	As per PVHES prevailing rate	
4	GPS	Per GPS/day	5,000
5	Flow measuring Equip	Per day	20,000
6	Set of Survey Equipment	Per day	50,000

PART B WATER USE CHARGES

Rates for water use charges

Formula for Calculation of Water Rentals

Total Cost: Cost (Rate) * (Factor A+ Factor B+ Factor C)*365

Table1: Rates for Consumptive water usage

Amount abstracted	Cost rate
First 500,000 m3	K5.50 per 1000 m3/day (or part thereof)
Next 500,000 m3	K5.50 per 500 m3/day (or part thereof)
In excess of 1,000,000 m3	K5.50 per 250 m3/day (or part thereof)

Table 2: Rates for Non-consumptive water usage

Amount abstracted	Proposed rate
First 500,000 m3	K5.50 per 10,000 m3/day (or part thereof)
Next 500,000 m3	K5.50 per 5,000 m3/day (or part thereof)
In excess of 1,000,000 m3	K5.50 per 2,500 m3/day (or part thereof)

The rent payable annually shall be calculated as a product of total authorized annual abstraction, the sum of the appropriate factors A, B and C and the rate prescribed by the Minister.

Factor A: Source of Water; Factor B: Use of Water; Factor C: Season of Use

Factor A: Source of Water

Source	Factor A Value
Lake Malawi	1.4
Streams into Lake Malawi	1.5
Shire River	
Upstream of Matope including Lake Malombe	1.8
Middle Shire between Matope and Chikwawa	1.5
Lower Shire below Chikwawa	1.2
Shire River tributaries and Shire Highland streams	1.0
Lake Chilwa and streams into Lake Chilwa	1.0
Lake Chiuta and streams into Lake Chiuta	1.0
Groundwater	
Alluvial aquifer	1.8
Weathered basement	2.0
Fractured weathered basement	2.0
Private storage reservoirs	0.5

Factor B: Use of Water

Consumptive Use	Factor B Value	Non-consumptive Use	Factor B Value
Irrigation		Power generation	0.5
Drip Irrigation	2.0	Conservation	0.5
Flood Irrigation	2.3	Fisheries	1.5
Sprinkler Irrigation	2.2	Recreation	1.4
Industrial Use	2.6	Navigation	1.4
Public Water Supply	1.5	Mining	3.0
Bottled water	2.8	Exploratory /research	1.0
Construction works	3.0	Recharge	0.5
Domestic use	1.0		

Factor C: Season of Use	
Season of Use	**Factor C Value**
All year round	1.5
Dominantly dry	2.0
Rainy season	1.0

PART C: EFFLUENT DISCHARGE CHARGES

Rates for water use charges

Formula for Calculation of Effluent Discharge Rentals

Total Cost: Cost (Rate) * (Factor A+ Factor B+ Factor C)*365

Table 2: Rates for Effluent Discharge

Volume of Effluent Discharge	Cost Rate
First 50 m3	K3.50 per 5 m3/day (or part thereof)
Next 100 m3	K3.50 per 10 m3/day (or part thereof)
In excess of 100 m3	K3.50 per 15 m3/day (or part thereof)

Factor A: Receiving Water Body/Catchment Area

Name of Water Body	Factor A Value
Lake Malawi	1.4
Streams into Lake Malawi	1.5
Shire River	
Upstream of Matope including Lake Malombe	1.8
Middle Shire between Matope and Chikwawa	1.5
Lower Shire below Chikwawa	1.2
Shire River tributaries and Shire Highland streams	1.0
Lake Chilwa and streams into Lake Chilwa	1.0
Lake Chiuta and streams into Lake Chiuta	1.0
Groundwater	1.5

Factor B: Type of Effluent

Type	Factor B Value
Mining	10
Brewery	5
Agricultural/Irrigation	3
Abattoir/Meat Processing	10
Petroleum	20
Textile	5
Tannery	15

Factor C: Season of Discharge

Season of Discharge	Factor C Value
All year round	1.5
Dominantly dry	2.0
Rainy season	1.0

PART D: PENALTIES

Item	Description of an Offence	Penalty (MK)
1	Unlawfully diverting, damming, storing abstracting or using water or constructing or maintaining any waterworks or in any way interfering with the flow of watercourse	
	1.1 Less than 50,000 m3/day	2,000,000
	1.2 From 50, 000 to 100,000	2,500,000
	1.3 From 100, 000 to 500,000	3,000,000
	1.4 From 500,000 to 1,000,000	3,500,000
	1.5 Above 1,000,000	K5,000,000 and eight (8) years imprisonment
2	Unlawful discharge of effluents	
	2.1 Domestic effluent	2,000,000 or as calculated
	2.2 Industrial/corporate effluent	10, 000,000 and 10 years imprisonment or as calculated
3	Failing to comply with a notice given by the Authority requiring a person to take measures specified therein to avoid or mitigate damage to water resources	2,000,000
4	Continuing to exercise a water right previously granted, after suspension or variation of the same	500,000
5	Continuing to exercise a water right previously granted, after determination or diminution of the same	500,000
6	Failing to comply with any condition, express or implied, subject to which a right was granted, or abstracting or using water for a purpose other than the one authorized in the grant	500,000
7	Preventing, obstructing or refusing entry upon your land by the Authority or any member or agent thereof for purposes of inspecting any works thereon or ascertaining the amount of water being abstracted	500,000
8	Refusing, failing or neglecting to demolish or to change the use of waterworks as required by the Authority	500,000
9	Refusing, failing or neglecting to demolish any unlawfully constructed works after being ordered by the Authority to demolish the same	500,000 Where the Authority demolishes the unlawful works, the Authority shall recover all expenses incurred as a civil debt from the person.

10	Refusing, failing or neglecting after being ordered by the Authority to modify or to demolish works previously constructed under a right which has been determined	500,000
11	Preventing, constructing or refusing entry upon your land by the Authority or any member or agent thereof for the purposes of conducting investigations and surveys	2,000,000
12	Interfering with or damages a hydro meteorological station, water quality station, hydrological station, hydrogeological station, groundwater monitoring station or any equipment thereof of works connected therewith	2,000,000 and if the equipment or works, as the case may be, have been damaged so as to require replacement or reconstruction, the person responsible shall be liable further to pay the costs of replacement or reconstruction, as the case may be
13	Preventing, obstructing or refusing entry upon any land by a representative or agent of a catchment management committee for the purposes specified under this Act	2,000,000
14	Refusing or failing to submit to the jurisdiction of a catchment management committee by refusing, failing or neglecting to comply with directions, rules, regulations, by-laws or guidelines of the catchment management committee	500,000
15	Failing to provide the Minister within the time specified by him/her with any data, information, documents or materials required by the Minister	500,000
16	A water management institution failing to make information at its disposal available to the public under the Act	1,000,000
17	Undertaking a controlled activity without a permit granted under the Act	1,000,000
18	Failure to apply to the Authority for variation of a licence status within the specified period	500,000
19	Cultivating or carrying out any activity within the bed and banks of watercourses and lakes and their adjacent land strips except as determined by the Authority	500,000
20	Failure to (*a*) install, operate and maintain equipment; take samples, dispose of them in a particular manner or submit them to such analysis by such person or class of persons;	500,000

	or (*b*) provide information to a person, concerning the investigation, use, control, protection, management or administration of any water or concerning any waste,	500,000
21	Furnishing any information under this section or causing or allowing any statement or representation to be made which you know to be false or misleading in a material particular	250,000
22	A holder of a licence authorizing the construction of works who, without the permission of the Authority, takes water from any water resource by means of any work authorized by the licence before the whole of the works authorized by the licence have been inspected and cleared.	1,000,000
23	Failure of a licensee to remove, within such time as the Authority may specify, all or any works erected in connection with the licence	250,000
24	Failure to comply with the provisions of an order to supply to an area, or to a specified person in the area, such quantity of water, and for a certain period, due to a serious deficiency of water	1,000,000
25	Without lawful authority, hindering or obstructing any person acting in pursuance of an order, or interfering with any works constructed or under construction in pursuance of such an order	2,000,000
26	Re-casing or removing the plugs or seals from a defective borehole, or depositing or causing or knowingly permitting the deposit of, any dirt, rubbish or other material in any such borehole, except with the written permission of the Authority	2,500,000
27	Miscellaneous offences	2,000,000

TWENTY FOURTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM V

FORMAT FOR REPORT ON COMPLAINTS

Information to be given by a complainant under these Regulations shall include:

(*a*) Name of Complainant;

(*b*) Contact address, telephone number, email address (if any);

(*c*) Nature and location of the problem;

(*d*) Date that problem occurred;

(*e*) Name and if available the contact details of all parties to the dispute or complaint;

(*f*) Any other relevant details; and

(*g*) Signature of the complainant.

TWENTY FIFTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM W

APPEAL AGAINST DECISION OF THE AUTHORITY, AUTHORIZED PERSON OR PUBLIC AUTHORITY MADE UNDER SECTION 142 OF THE ACT

To be completed in triplicate.

Name and address of Appellant: _____

_____

Name and address of Authority, authorized person or public authority whose decision is appealed against _____

_____

Name and address of Authority, authorized person or public authority the appeal is made to

_____

_____

Decision and a brief description of subject matter appealed forming subject of appeal _____

_____

_____

_____

Grounds of Appeal _____

_____

_____

_____

Date: _____ Signature of Appellant: _____

For official use only

Acknowledgement of receipt of appeal

Reference number: _____

Date of receipt of appeal: _____

Official stamp: _____

TWENTY SIXTH SCHEDULE

WATER RESOURCES ACT

(CAP.72:03)

WATER RESOURCES REGULATIONS, 2018

FORM X

WATER ABSTRACTION AND EFFLUENT DISCHARGE CONTROL

AND MEASURING DEVICES

To be completed in triplicate

All major authorised major users whether for abstraction or effluent discharge shall be required to have installed a controlling or a measuring device within two (2) years of these regulations coming into force, for accurate measurement water abstracted and for effluent discharged as the case may be. The devices to be installed shall be calibrated meter for piped or pumped system and calibrated weirs or flumes for open channel abstractions and shall be accessible for inspection to the Authority.

Part A: Water Abstraction

Details of water right for which measuring and control devises are to be installed

1.0 Name and grant details:

Name of licence holder: _____ LicenceNumber:_____

Licenced volume of abstraction: _____

Name of source of water: _____

2.0 Means of water abstraction:

( ) Pumping. Pump type and pumping capacity_____

( ) River diversion: Dimensions of the conveyance canal: width_____ depth _____

( ) Canal: width_____ depth _____

( ) Motorised borehole, Pump type and pumping capacity_____

( ) Other (specify) _____

3.0 Type of measuring devices installed:

( ) meter with seal not tampered with ( ) weir, ( ) sluice gates ( ) staff gauges

( ) others specify_____

calibrated in _____

What factor is required to convert the readings into cubic meters (m3) (if the readings are not directly in cubic meter) _____

Date of installation _____

Installation approved/ inspected by _____ (on behalf of the Authority)

Date_____

4.0 Means of storage of the water:

The licence holder shall be required to install means of control of overflow when the storage facility is full.

Type of storage

( ) Tanks

( ) Other (specify

Type of overflow control mechanism

( ) Ball valve /float valve

( ) Other (specify

( ) If none, describe how overflow is controlled when the storage facility is full

5.0 Water abstraction register:

The licence holder shall be required to maintain a record of daily records abstraction, which record shall be accessible for inspection by the Authority

Daily water abstractions register:

Date	Licence Number	Volume of Abstraction	Recorded by	Remarks
1				
2				
4				

Part B: Effluent Discharge

Details of discharge permit for which measuring devises are to be installed

1.0 Name and grant details:

Name of permit holder: _____Permit Number: _____

Licenced volume of discharge: _____Name of receiving water body _____

2.0 Means of wastewater disposal

( ) through oxidation ponds into _____ (name of water body)

( ) through oxidation ponds into garden/plantation

( ) Other (specify) _____

3.0 Type of measuring devices installed:

( ) weir,

( ) others specify_____

calibrated in _____

What factor is required to convert the readings into cubic meters (m3) (if the readings are not directly in cubic meter) _____

4.0 Site/Location of measuring devices

Distance between the devices the receiving water and a water body or the environment _____ (m)

Date of installation of the measuring _____

Installation approved/ inspected by _____ (on behalf of the Authority)

Date_____

Dated this 27 day of December, 2017.

JOSEPH MWANAMVEKHA
Minister of Agriculture,
Irrigation and Water Development

(FILE REF. NO WRB/1)