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MODEL WATER CODE ZIMBABWE

DEVELOPED BY TAKUDZWA MUTEZO
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Foreword

This Model Water Code is the product of a chance meeting that occurred in Lincoln, Nebraska in the United States during the summer of 2022. During that summer, Takudzwa S. Mutezo a renowned international environmental lawyer, was visiting the United States from Zimbabwe through the Washington Mandela Fellowship. The Fellowship invited Don Blankenau, an attorney who has represented numerous governmental bodies in water litigation, to engage in a conversation with the Fellowship attendees regarding water law in the United States and the global challenges to water management. Following that meeting Ms. Mutezo and Mr. Blankenau discussed ideas for sharing concepts that have been used in the United States to facilitate water infrastructure investment and simultaneously protect traditional uses. Ms. Mutezo and Mr. Blankenau agreed that it may be of helpful to adapt a model water code from the United States to the traditions, customs, and historical uses of Zimbabwe. To that end, the pair applied for and received a grant from the Mandela Washington Fellowship to develop and share this Model Water Code.

As stated above, this Model Water Code was primarily adapted from a model code created by lawyers and engineers for application in the United States. Many of the concepts expressed in this Code have been subjected to legislative and judicial scrutiny and have proved valuable to achieving water management objectives. Indeed, many of the concepts, particularly those that deal with domestic, agricultural, and environmental uses, have been tested by the United States Supreme Court. While each state within the United States has its own system of water rights and administration of those rights, the concepts contained in the U.S. sources are common to many states and are intended to accomplish two basic and primary purposes: (1) To establish a strong judicially enforceable water right that provides the holder with assurances that the right will endure for a period sufficient to encourage development and protect investment in infrastructure; and (2) To recognize within this judicial structure of rights, traditional uses of water including domestic uses, agricultural uses, municipal uses, industrial uses and provide for fish and wildlife resources.

This Model Water Code attempts to incorporate those same concepts within the judicial structure of Zimbabwe's law with an attentive eye to its Constitution and the needs of Zimbabwe's People. The Code is written to provide a solid framework for comprehensive legislation, but its primary application may be to serve as an intellectual starting point to encourage legislative discussion and debate.

Introduction

This Model Water Code has been developed as a basic template and guidance document to aid in improving existing water legislation in Zimbabwe. It has been drafted using an extensive comparative law exercise, considering 'best practice' in the field. Thus, it is aspirational in nature; seeking to provide the best possible structures, systems, and provisions to enhance water laws.

The purpose of this Model Water Code is to function as a 'framework' law that provides a comprehensive and flexible framework for managing water resources in a way that is fair, efficient, and sustainable.

The Model Water Code represents an international unification and harmonisation of water legislation, which can be adapted or modified - if the circumstances require - in different legal systems, without limitation to Zimbabwe. Elements of different legal orders have been considered and incorporated to achieve (as far as possible for the present day) a comprehensive, far-reaching, and progressive approach to water legislation. Elements of this Model Water Code can also be used for inspiration in creating, amending, or interpreting water laws.

Background

'Water is life' – hupenyu,¹ is a principle that transcends the customs and traditions of Zimbabwe.² According to customary law in Zimbabwe, drinking water is for everyone³ and cannot be denied to anyone.⁴ Human rights law recognises water as an essential for basic human needs.⁵ This is enshrined in Section 77(a) of the Constitution which identifies that: 'every person has the right to safe, clean and potable water ... and the State must take reasonable legislative and other measures, within the limits of the resources available to it, to achieve the progressive realisation of this right'. This is in tune with the value placed on water for sanitation and hygiene. Water is also a critical resource for industry, with agriculture accounting for 79% of total water use in 2005,⁶ followed by sectors such as mining, manufacturing, and other uses. However, all these uses should be carried out in a sustainable way that adheres to the environmental rights: "to an environment that is not harmful to their health or well-being; and to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures that—prevent pollution and ecological degradation, secure ecologically sustainable development and use of natural resources while promoting economic and social development", as enshrined in Section 77 of the Constitution.

¹ Hupenyu means life in Shona.

² N. Nemarundwe. (2003) Negotiating resource access: institutional arrangements for woodlands and water use in southern Zimbabwe. Doctoral thesis, Swedish University of Agricultural Sciences, Uppsala, Sweden.

³ P. Matondi. (2001) The struggle for access to land and water resources in Zimbabwe: the case of Shamva district. Doctoral thesis, Swedish University of Agricultural Sciences, Uppsala, Sweden.

⁴ B. Derman, and A. Hellum (2003) Neither tragedy nor enclosure: are there inherent human rights in water management in Zimbabwe's communal lands? In: Benjaminsen, T. and Lund, C. (eds) Securing Land Rights in Africa. Frank Cass, London, pp. 31–50.

⁵ B. Derman, A. Hellum, E. Manzungu, P. Sithole & R. Machiridza. (2007) Intersections Of Law, Human Rights And Water Management In Zimbabwe: Implications For Rural Livelihoods, IWMI Books, Reports H040698, International Water Management Institute.

⁶ FAO, 2005 [JSH3]

Zimbabwe is a landlocked and semi-arid Country bordering Zambia, Mozambique, Botswana, and South Africa. The total area of the Zimbabwe amounts to 390,580 km² of which land is 386,670 km² and the rest is covered by water bodies.⁷ Rainfall in Zimbabwe varies significantly, with catchments in the Eastern Highlands receiving three times more rainfall than the drier parts in the South East annually. Zimbabwe is made of a dense river network divided by a Central Watershed, with almost all of the rivers draining into water channels that form transboundary waters. The Country is made of up of seven major river systems which form the basis for catchments established by the Water Act [20:24] namely: Save, Runde, Mzingwane, Gwayi, Sanyati, Manyame and Mazowe. Apart from Save and Runde, the other main rivers drain into either the Zambezi or the Limpopo, which constitute international rivers.⁸

Groundwater resources in Zimbabwe are small in comparison to the estimated surface water resources. This is due to the fact that a greater part of Zimbabwe consists of ancient igneous rock formations, where groundwater potential is comparatively low. Moreover, Zimbabwe, like other States in the Southern African Development Community (SADC), is prone to droughts which have the potential to affect people and biodiversity, if water resources are not managed effectively. Thus, water sharing, utilisation and preservation at transboundary level is of value to water management in Zimbabwe and across SADC, as is evident through the Protocol on Shared Watercourse Systems.

Water is a finite resource with competing interests and uses. Demand for water is expected to increase by 55% by 2050 from 2000, according to the Organization for Economic Cooperation and Development.⁹ This increase will be caused by population growth, socio-economic development and changing water consumption behavior under a changing climate.¹⁰ Thus, effective regulation and policy of water resources is of significant value.

Water Laws in Zimbabwe

Zimbabwe has implemented various laws and reforms in an attempt to manage its water resources effectively.¹¹

Water Act of 1976

Prior to the enactment of the Water Act of 1998, water in Zimbabwe was regulated by the Water Act of 1976. However, this earlier legislation, exhibited several shortcomings that necessitated significant reforms.

The Water Act of 1976 relied on the Water Right System, which granted priority to those who obtained water rights earlier for water allocation. This system, known as the Priority Date System, resulted in inequitable distribution of water resources, as it primarily benefited those who had acquired water rights prior to the majority of the population. Moreover, water rights were issued in

⁷ Hodson Makurira & Nyashadzashe Viriri (2017) Water Permit Systems, Policy Reforms and Implications for Equity in Zimbabwe

⁸ <https://issafrica.org/country-file-zimbabwe/natural-resources-and-environment>

⁹ OECD (2012) OECD Environmental Outlook to 2050: The Consequences of Inaction. OECD Publishing, Paris, France.

¹⁰ UNESCO World Water Assessment Programme (WWAP) 2019 The United Nations World Water Development Report 2019: Leaving No One Behind. UNESCO, Paris, France.

¹¹ African Development Bank (AfDB) (2011). Water resource management, supply and sanitation. Chapter 7 in Infrastructure and Growth in Zimbabwe; An action plan for sustained strong economic growth. African Development Bank Group, 2011.

perpetuity, making it challenging to accommodate new water users once all available water had been allocated. This rigidity, coupled with the perception of racial bias in water rights distribution stemming from Zimbabwe's colonial past, further exacerbated concerns about equity.

Additionally, the Water Act of 1976 did not adequately address water pricing, environmental considerations, groundwater development and protection, or integrated water resources management. The Act's complexity, compounded by numerous amendments, further hindered its effective administration. The centralized administration of the Water Act of 1976 further compounded its weaknesses. Provincial Water Offices, while existing, had limited authority in decision-making regarding water allocation and management, excluding water stored in government dams. Water Boards, established in areas of high-water demand to manage water resources, lacked inclusive stakeholder representation. Moreover, the Water Court, situated in Harare, held sole responsibility for water allocation and dispute resolution across the entire country. This centralized approach resulted in lengthy and complex processes, particularly during water shortages when reallocation became necessary.

Once granted, water rights could not be revised, even in cases where rights holders were not utilizing their allocated water, unless compensation was provided. Consequently, there was no obligation to pay for the possession of water rights or contribute towards general water service provision, placing the financial burden solely on the central government for water development and management.

These limitations of the Water Act of 1976 prompted the introduction of the Water Act [20:24] of 1998, which aimed to address the shortcomings of its predecessor and establish a more comprehensive and equitable water management framework for Zimbabwe.¹²

Water Act of 1998

Under the Water Act of 1998, water rights were replaced with water use permits, issued for a limited period and subject to renewal based on water availability and efficient use practices. This move aimed to address the shortcomings of the previous system, where water rights were granted in perpetuity and led to inequitable distribution of water resources.

Another key feature of the Water Act was the abolition of the priority principle, which had favoured those who obtained water rights earlier. This change paved the way for a more equitable allocation of water resources, ensuring that access to water was not determined by historical precedence.

The Water Act also introduced the concept of environmental water use, recognizing the importance of water for sustaining ecosystems and maintaining ecological balance. This shift in perspective emphasized the need to consider water not just as a commodity but as a vital component of the environment.

To foster stakeholder participation in water management, the Water Act established catchment and sub-catchment councils, comprising representatives from various water use sectors. These councils were tasked with advising on water allocation and day-to-day water management decisions, bringing diverse perspectives to the table.

¹² F.G. W. Jaspers (2001) The New Water Legislation of Zimbabwe and South Africa: Comparison of Legal and Institutional Reform. *International Environmental Agreements: Politics, Law and Economics* 1: 305–325. Delft, The Netherlands.

The "polluter pays" principle was another significant addition to the Water Act, holding polluters accountable for the costs associated with their actions. This principle aimed to deter pollution and encourage more responsible water use practices. The Water Act was complemented by the National Water Policy (NWP) of 2013, which provided guidance on the implementation of the Water Act and further elaborated on key water management principles, including equity in access to water, user pays, polluter pays, sustainability, environment as a user of water, and economic feasibility.

The Water Act and the NWP have played a crucial role in modernizing water governance in Zimbabwe, moving towards a more comprehensive and equitable framework. These reforms have addressed critical issues such as water rights, allocation, and environmental considerations, ensuring that water resources are managed sustainably and responsibly for the benefit of all Zimbabweans.

Other regulatory and policy frameworks that guide the implementation of the Water Act include:

- Zimbabwe National Water Authority Act [20:25]
- Zambezi River Authority Act [20:23]
- Statutory Instrument 48 of 2016: Zimbabwe National Water Authority (Raw Water Tariff) Regulations, 2016
- Statutory Instrument 33 of 2000: Water (Catchment Council) Regulations 2000
- Statutory Instrument of 2000: Water (Sub catchment council) Regulation 2000
- Statutory Instrument 95 of 2000: Water Levy Notice, 2000
- Statutory Instrument 34 of 2000: Water (River Systems Declaration) Notice 2000
- Groundwater Regulations and Pollution Control.

Gaps in Water Legislation

Zimbabwe has comprehensive water regulations and policies highlighted in the Water Act [20:24] and other policy instruments. However, there are certain legal gaps that have been identified below, which would merit a review of the Water Act [20:24] as reiterated during the State of Nation address given by His Excellency, President E.D. Mnangagwa on the 3rd of October 2023. During the SON, the tenth parliament of Zimbabwe was called upon to review the Water Act [20:24] "to give impetus to matters related to climate change adaptation and resilience".

The gaps in water legislation are as follows:

- Right to water;
- Climate change adaptation and resilience;
- Gender mainstreaming;
- Investments in water infrastructure and technologies;
- Protection of biodiversity and aquatic ecosystems;

Right to Water

The Constitution of Zimbabwe came into effect in 2013. This was several years after the enactment of the Water Act [20:24]. Thus, there is need for the express inclusion of the right to water as prescribed by customary law and Section 77 of the Constitution, in the principal Act that regulates water use in Zimbabwe. This right to water includes the right to access, as well as the right to safe and potable water, which further indicates the commitment of the State to address the water and sanitation challenges that have ensued in Zimbabwe for over a decade.

Climate Change Adaptation and Resilience

The alteration of temperatures, precipitation levels, extreme weather conditions including frequency of droughts in Zimbabwe emanate from climate change and directly affect water use and management. Consequently, there is need for the Water Act to include provisions that directly deal with climate change adaptation and resilience.

Gender Mainstreaming

Despite their role as primary water users, there are several cultural constraints that may disadvantage women from participating in water management and have negotiating power in bodies such as the Catchment Council.¹³ Thus, it is pertinent that participation is not prohibitive but inclusive to allow for gender equality and progressive water regulations.

Investments in Water Infrastructure and Technologies

Encouraging investment in water infrastructure and technology is crucial for ensuring sustainable water resources management and addressing global water challenges. Several strategies can be implemented to attract and promote investment in this sector. Having clear regulatory frameworks and incentives, coupled with the protection of property rights and cost recovery would encourage public-private partnerships which would leverage private sector expertise and capital to finance and manage water infrastructure projects. Furthermore, by addressing regulatory barriers and strengthening institutional capacity, investments that would serve the purpose of addressing some of the major sanitary and hygiene challenges facing Zimbabwe today, by advancing infrastructure and technology.

Protection of biodiversity and Aquatic Ecosystems

Biodiversity is essential for maintaining the health of human populations, particularly those that rely on aquatic resources for their livelihoods. Aquatic ecosystems play a vital role in maintaining water quality by filtering pollutants, regulating nutrient levels, and providing habitat for microorganisms that break down organic matter. Protecting these ecosystems ensures continued access to clean and usable water resources for generations to come. Moreover, there certain ecosystems serve important functions such as flood control, erosion prevention, and climate regulation. This is in alignment with Section 73 of the Constitution which refers to environmental right.

Justification for the Model Water Code

There are a number of ethical, scientific and policy developments have led many countries to seek to introduce or improve national water legislation. This Model Water Code has been prepared to assist with this process. It has been formulated using a comparative analysis of the best available legislative models, precedents, and advice; taking into account international standards and rules, and current knowledge based on water science and practical experience. It has also undergone an extensive consultation and evaluation procedure by international and local experts and institutions, which raised a multitude of invaluable concerns and recommendations, all of which have contributed to the development of a deeply considered and more rounded proposal.

Objectives

- Developing jurisprudence of water use and management;

¹³ M. M. Walker, (2006) Women, Water Policy and Reform: Global Discourses and Local Realities in Zimbabwe, Working Paper #287

- Providing legal assurances to encourage and protect investments in water infrastructure;
- Mitigating and addressing current and emerging water issues;
- Framework for enhancing the access to fair, efficient, and sustainable uses of water.

Guiding Principles

Objectives

Water is a precious resource that is essential for life. It is also a finite resource that is becoming increasingly scarce due to population growth, climate change, and other factors. A model water code is a set of statutory provisions that can be adopted by a state or other jurisdiction to regulate the use and management of water resources.

The goal of a model water code is to ensure that water is used in a fair, efficient, and sustainable manner. The code should address a wide range of issues, including the allocation of water rights, the protection of water quality, the management of water supply and demand, the prevention of water pollution, the development and use of water conservation measures, and the enforcement of water laws.

A model water code should be flexible enough to be adapted to the specific needs of each jurisdiction. It should also be carefully crafted to balance the competing interests of water users, including agricultural, industrial, and municipal users whilst mindful of environmental impacts.

The development and adoption of water legislation is a complex and challenging process. However, it is an essential step in ensuring that water resources are managed in a way that meets the needs of the present and future generations.

Zimbabwe

“Water is life” is a universal premise. 1 in 3 people in Africa experience water scarcity according to WHO. Zimbabwe is not exempt. As a landlocked Country, Zimbabwe relies on rain that supplies lakes, rivers, and aquifers for water. The right to water is a right enshrined in Section 77 of the Constitution (2013). This right applies to all, and specifies that the water must be safe, clean, and potable.

Principles

Water is an essential resource for life and plays a critical role in human health, agriculture, industry, and ecosystem services. Effective water legislation is crucial for ensuring sustainable water management, protecting aquatic ecosystems, and ensuring equitable access to water resources. Here are some key principles for water legislation:

1. Protecting Public Interest

The waters of the State are a natural resource owned by the State in trust for the public and subject to the State’s sovereign power to plan, regulate, and control the withdrawal and use of those waters, under law, in order to protect the public health, safety, and welfare by promoting economic growth, mitigating the harmful effects of drought, resolving conflicts among competing water users, achieving balance between consumptive and non-consumptive uses of water, encouraging conservation, preventing excessive degradation of natural environments, and enhancing the

productivity of water-related activities. This also requires balance between economic growth and other important values.

2. Ensuring efficient and productive use of water

The State uses permits and other legal means to distribute the state's water resources among users in a way that ensures that water is used efficiently and sustainably. This means that water will be used to meet the needs of the economy, the environment, and society as a whole, both public and private. The State endeavors to make sure that water is available to everyone, so that it does not become a barrier or limiting factor in the general improvement of social welfare.

3. Rule of Law and Scientific Knowledge

Rule of law helps to promote efficiency, equity, order, conjunctive management, and stability in the utilization of the water resources of the State over time. The Code and all orders, permit terms or conditions, or regulations issued in accordance with the Code, are to be interpreted to achieve the policies embodied in this Code and to be consistent with scientific knowledge that governs the natural occurrence, movement, and storage of water, in so far as doing so does not directly contradict the express terms of the Code.

4. Comprehensive Planning

Proper planning and management of water resources is essential for the health, safety, and well-being of people, nature, and industry. To this end, the State will develop a comprehensive water allocation plan and implement conservation and drought management strategies to ensure that water resources are used sustainably.

5. Shortfalls in Water Supply

The State, using its authority to protect the public interest in water resources, will develop a systematic plan to allocate water efficiently and fairly during times of water scarcity or emergency in a manner that promotes economic efficiency and social equity.

6. Legal Security for Water Rights

To ensure that water rights are legally protected, this code establishes a system of permits that make water rights a matter of public record. This means that water rights holders have legal recourse if their rights are violated. Consequently, a permit issued under the Code creates a right to use water (a "water right") that is entitled to full legal protection within the terms and conditions of the permit. Legal security is necessary to foster appropriate investment in water resources.

7. Coordination of Water Allocation and Water Quality Regulation

Water allocation is inseparable from the regulation of water quality. As such, water allocation must be coordinated with water quality for effective management of a water source and to comply with laws and regulations emanating from the Code. The plans, laws, regulations, and decisions pertaining to water allocation should be coordinated with those pertaining to water quality.

8. Water Conservation

Water conservation may be ensured through suitable policies by the State and by encouraging private efforts to conserve water and to avoid waste.

9. Preservation of Minimum Flows and Levels

Adopting regulations and measures or steps to preserve a protected minimum level of each water source is important. The State has a role to preserve the minimum flows/levels in the States water sources as is necessary to preserve the biological, chemical, and physical integrity of water sources by reserving such waters from allocation and by authorising additional protections of waters of the State.

10. Local Interests in the Water of the State

The diverse hydrogeographic, economic, and institutional conditions in Zimbabwe require the State to continue to support the activities of local governments, both general and special purpose, that address local and regional water resource conditions and problems.

11. Interprovincial Water Transfers

The State shall maintain the waters of the State both for supplying water requirements within and, under appropriate circumstances, for out-of-province transportation and use.

12. Interbasin Water Transfers

The State shall protect the reasonable needs of water basins of origin through the regulation of Interbasin transfers.

13. Atmospheric Water Management

As the management of atmospheric water through weather modification affects the public health, safety, welfare, and the environment, the State shall subject such activities to regulation and control in the public interest and integrate such activities with surface and underground water resources management in order to improve water allocation and quality.

14. Precautionary Principle

Some States might prefer to adopt a higher burden of proof in this regard to reflect the “precautionary principle.” (The precautionary principle requires that in making decisions about the environment, errors should be made in favor of protection as a precaution against the potentially irreversible consequences of errors that, in retrospect, turn out to have provided inadequate protection).

Development And Modification Of Water Legislation

A codified Act, which establishes a framework which includes the justifications provided for by the guiding principles and would underpin all subsequent secondary legislation, codes of conduct and guidance is necessary.

The provisions indicated in the Model Water Code should not remain static or fixed in time but should continuously be developed in response to the rapidly occurring changes in our state of knowledge (including scientific progress) and evolving values on water.

The general principles reflected in the Model Water Act should apply to national policy 'across the board', thus applying in all national policies which concern issues relating to water.

There are also general requirements in relation to modern water legislation: the provisions should be comprehensive and precise, clearly worded, progressive, powerful, and forward-looking, efficacious, and executable whilst being adaptable to the particular needs and challenges of the country in

question. Dedication and commitment are certainly key factors which have to be firmly embedded in the new legislation as well, by manifesting an open-minded, ethically founded, compassionate and progressive approach to the subject along with the willingness of a government and a nation to accept their duties and responsibilities.

Furthermore, the Model Water Code should go beyond practical measures intended to improve water legislation and aim to develop a deeper and broader based approach that seeks to ensure public interest and sustainable development.

Considerations for the Model Water Code

Implementation of the model water code

Water law is a relatively new field of law that is undergoing significant changes, particularly in Africa. This provides an opportunity to introduce new perspectives and ideas that can shape the future development and implementation of this field. This requires thorough research and analysis of the different requirements of the field, as well as the latest legal, policy, scientific, ethical, and practical advancements. The Model Water Code follows this approach, aiming to help busy legislators avoid the need for extensive background research.

The Model Water Code is a guide that can be used to develop water legislation in specific countries. However, it may need to be adapted to take into account the specific circumstances of each country, such as its legislative procedures, socio-cultural norms, and water challenges. By following this approach, countries can design modern, comprehensive water legislation that is tailored to their own needs.

Ideally, the right to water and the obligation to access safe and potable water should be enshrined in the legal system of every country. This would ensure that everyone has access to this essential resource, regardless of their circumstances.

The constitution

The Constitution is the highest law of the land, from which provides the fundamental principles or established precedents that constitute the legal basis for legislation and policy in a State. Thus, it is key for the Constitution to provide the foundation for comprehensive and effective water rights by the State.

At the very least, a constitutional provision on water should include:

- **The right to water:** The constitution should guarantee the right of all citizens to have access to safe, clean, and affordable water. This right should be explicitly stated and should be enforceable by the courts.
- **Protect water resources:** The constitution should provide an obligation for the protection of water resources by the government and to ensure that they are used in a sustainable way. This includes protecting water quality, preventing pollution, and managing water use.
- **The role of the private sector:** The constitution should clarify the role of the private sector in the water sector. This could include allowing private companies to have water rights and operate water utilities, whilst enabling the government to play an active role in water management.

- **The participation of communities:** The constitution should emphasize the importance of community participation in water management.
- **The need for cooperation:** The constitution should recognize the need for cooperation between countries in managing shared water resources.

These are just some of the things that constitutional provisions on water should include. The specific provisions will vary depending on the States circumstances and priorities. However, all constitutional provisions on water should be designed to ensure that water is managed in a sustainable and equitable way so that everyone has access to this essential resource.

Policy

Another important need is to introduce a national water policy/strategy as early as possible. This will provide the government with more details on the ethical basis of its water policy and a roadmap for proactively developing measures to improve water rights and management, as well as educating and informing stakeholders and citizens.

The advantage of formulating a water policy/strategy at an early stage is that it clarifies the work that the government needs to do. This allows the necessary structures, systems, and expertise to be developed to address this task. These will be needed before legislation can be considered, drafted, and implemented. It is also important to set goals and a timeline for achieving these goals. Governments often try to draft water legislation before they have the necessary policy structures and expertise in place, which can lead to unintentional mistakes and ineffective provisions that need to be amended later.

The following would need to be included in any water policy/strategy as a minimum:

- **The Ethical Basis for Water policies/Laws:** Philosophical beliefs: including those based on science, culture, and societal values. Whereby recognition of water rights should be included as a basic principle.
- **Any Regional or International Requirements:** International or regional standards, agreements or provisions that may be applicable for water rights and water management would provide an invaluable addition to the national water policy/strategy.
- **Future Plans for Water Legislation:** Plans to develop a modern, comprehensive framework act, supported by secondary legislation, and where appropriate codes of conduct and guidance. These should be accompanied by a timeframe for regular reviews. and should be included in the policy.
- **Government Structures & Enforcement Systems:** Including the development of government structures and enforcement systems that can effectively administer and enforce water legislation. This will require identifying the lead government department and bodies responsible for enforcement, formulating plans to develop an effective authority, determining what is needed to strengthen systems, procedures, and staffing (including expertise and training), and providing funding for water policy, programs, education, and enforcement.
- **Knowledge Skills:** Including plans to improve knowledge and skills on water rights and water management where most needed, e.g.: drivers of change, policy officials, enforcement officers, scientists, engineers, farmers/farmers groups, industry, health care providers, traders, and communities. This would include developing national water science programmes and capacity building/training and guidance for relevant professionals; and

could be carried out in conjunction with extension services, development partners and NGOs.

- **Research & Development:** Including the collection and dissemination of good practice: pilot projects, case studies and research (within and outside of the region) - thus facilitating the application of nationally appropriate best practice. This should include the collection and use of indigenous knowledge about water management.
- **Education & Awareness:** Including the incorporation of water rights and water management education into existing school programmes; the development in further and higher education; and the development of clear consumer information, and communication and public awareness strategies for the broader public (including through mass media).
- **Mainstreaming Water Rights:** The integration of water rights into relevant sectoral and cross sectoral policies and programmes (including poverty reduction, livelihoods, agriculture and fisheries, transport, trade, science and research, health/safety; and environment).
- **Monitoring & Evaluation:** The establishment of systems for monitoring and evaluation of progress with the implementation of water legislation, including robust systems for monitoring compliance with water legislation. Also, mechanisms to monitor enforcement and collate feed-back on water issues. Plus, systems and processes for the ongoing review of ethical, scientific and practical as well as international developments in the field, and analysis of the policy and legislative enhancements needed to take account of these.

Competent Authority

The government department that should have the lead responsibility concerning water rights and water management is the Ministry of Lands, Agriculture, Fisheries, Water and Rural Development. The competent Authority should be designated by the principal Act and have the expertise, competence, and influence in the government, considering the significance of water.

In certain instances, more than one Ministry is designated authority over water, which can create difficulties as different approaches are adopted by each Ministry. It is preferable to have one department leading on water across the board, so it can establish sound and coherent principles and policies and build expertise across the board. But if a country does decide to site water under a separate Ministry (e.g., Environment or Agriculture), then it needs to establish procedures to ensure a consistency and practical approach in each Ministry.

Occasionally other aspects of water rights or management are sited under other Ministries/

Another option, which has been used by some countries, is to embed water rights and water management under a ministry that has no involvement with any water issues. For example, placing the water department under the Ministry of Justice. However, this might pose challenges in terms of expertise (the practical result where policy staff from the Ministry of Justice had to be supported by water experts at relevant water meetings).

Each government will need to develop its own approach to water regulation, based on its existing structures and expertise. The specific situation, needs, and practicalities will vary from country to country. However, it is essential that the responsible government agency builds the political will, systems, and procedures necessary to effectively administer this important mandate. This also means developing the values, principles, and expertise necessary to champion water management throughout government.

The ministry in charge of this mandate should be prepared to allocate the necessary staff and resources. It must ensure that water rights and water management is seen as a strong moral imperative, of value and relevance in its own right, and not as a marginal issue that can be ignored when other interests are at stake.

Stakeholders

It is important that legislation is widely considered just and equitable in order to be enforceable and effective. Therefore, it would be beneficial to invite all stakeholders who may be affected by the law in any way to participate in consultations about this Act and any subsequent secondary legislation. The goal should be to give all stakeholders the opportunity to examine and discuss the legislation from the early stages of its development, in order to eliminate any potential areas of conflict. Where possible, consultations should include face-to-face meetings as well as written submissions, as this allows stakeholders to interact and gain an understanding of the (often competing) needs and interests of other groups of stakeholders.

The legislative body should consult with various categories of stakeholders and interested parties from the very beginning of the decision-making process.

These may include (but are not limited to):

- **Government Agencies:** These agencies will be responsible for implementing or supporting the legislation so it is important to get their input on how the law should be written.
- **Industry/Trade groups:** These groups can provide valuable insights into the practical implications of the legislation.
- **Non-governmental organizations (NGOs):** These organizations can represent the interests of affected communities and individuals.
- **Academics/Researchers:** These experts can provide insights into the scientific, legal and policy implications of the legislation.
- **The Public:** This is important to ensure that the legislation is responsive to the needs of all citizens.

WATER CODE

ARRANGEMENT OF SECTIONS

PART I PRELIMINARY

Section

1. Title and commencement
2. Interpretation
3. Application of this Code in relation to other laws.

PART II

GENERAL PRINCIPLES OF WATER MANAGEMENT AND FUNCTIONS OF THE MINISTER

4. Water vested in the President
5. Water rights and principles of water management.
6. General functions of the Minister.
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PART III

ESTABLISHMENT, FUNCTIONS AND PROCEDURES OF CATCHMENT COUNCILS

11. Establishment of catchment councils.
12. Functions of catchment councils.
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PART I
PRELIMINARY

Section 1 Title and commencement

- (1) This Act may be cited as the Water Code [Chapter].
- (2) This Act shall come into operation on a date to be fixed by the President by statutory instrument.

Section 2 Interpretation

In this Code—

“abstraction” means process of removing water from a river or other source.

“agricultural and Rural Development Authority” means the Agricultural and Rural Development Authority established by section 3 of the Agricultural and Rural Development Authority Act [Chapter 18:01];

“agricultural purposes”, in relation to the use of water, means the use of water for—

- (a) the irrigation of land; or
- (b) fish farming purposes; or
- (c) animal husbandry, including the keeping of poultry, where the amount of water used exceeds ten thousand litres per day;

“appropriate Minister”, in relation to any particular matter, means any Minister who, by or in terms of any enactment, is empowered or required to exercise any function in respect of the matter; or

“aquatic ecosystems” means riverine flora and fauna and aquatic life;

“aquifer” means any geological formation which absorbs, stores, and transmits water;

“area under jurisdiction of a local authority” means—

- (a) in the case of a municipal council, the municipal area;
- (b) in the case of a town council, the town council area;
- (c) in the case of rural district council, the rural district council area;
- (d) in the case of a local board, the area for which the board has been declared in terms of subsection (2);

“atmospheric water management” and “weather modification” both mean any activity performed with the intent of producing artificial changes in the composition, motions, and resulting behaviour of the atmosphere or clouds, including fog, or with the intent of inducing changes in precipitation by use of electrical device, lasers, or alterations of the Earth’s surface;

“biological integrity” of a water source means the maintenance of water in the source in the volume and at the times necessary to support and maintain wetlands and wildlife (including fish, flora, and fauna) in so far as protection of either is required by Zimbabwean laws or regulations;

“borehole” means a hole drilled or sunk into the ground for the purpose of the abstraction of ground water, the collection of ground water or rock samples, the monitoring of ground water levels, or other purposes;

“catchment area” means the area which naturally drains into a dam, lake, reservoir, river, or watercourse and from which the dam, lake, reservoir, river, or watercourse receives surface or ground flow which originates from rainfall;

“catchment council” means a catchment council established in terms of section eleven;

“catchment manager” means a person appointed as catchment manager in terms of section nineteen;

“chemical integrity” of a water source means the maintenance of water in the source in the volume and at the times necessary to enable a water source to achieve the water quality standards prescribed for the water source by Zimbabwean laws or regulations in light of authorized effluent discharges and other expected impacts on the water source;

“comprehensive water allocation plan” is a plan developed by the National Water Authority for the intermediate and long-term protection, conservation, augmentation, and management of all the water of the State and is designed to promote and secure the sustainable development and reasonable use of the waters of the State, taking into account economic, environmental, climate change adaptation, climate change resilience and other social values.

“conservation measures” refers to any measures adopted by a water right holder, or several water right holders acting in concert pursuant to an approved conservation agreement, to reduce the withdrawals or consumptive uses, or both, associated with the exercise of a water right, including, but not limited to

- (a) improvements in water transmission and water use efficiency,
- (b) reduction in water use,
- (c) enhancement of return flows, and
- (d) reuse of return flows;

“consumptive use” means any use of water that is not a “non-consumptive use” without being limited to, evaporation or the incorporation of the water into a product or crop;

“climate change” means long-term shifts in temperatures and weather patterns which are attributed directly or indirectly to human activity primarily through burning of fossil fuels that alter the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods;

“Director of Physical Planning” means the Director of Physical Planning appointed in terms of section 63 of the Regional, Town and Country Planning Act [Chapter 29:12];

“domestic use” is a direct use of water for ordinary household purposes, including immediate human consumption (including sanitation and washing), the watering animals held for personal use or consumption, and home gardens and lawns;

“drought management strategies” are plans devised by the National Water Authority pursuant to this Code for the allocation of water during periods of drought and otherwise to cope with water shortages or water emergencies and, in so far as is reasonably possible, to restore the waters of the State to their condition prior to the drought;

“effluent” means waste water or other fluid originating from domestic, agricultural, or industrial activity, whether the water or fluid is treated or untreated and whether it is discharged directly or indirectly into the environment;

“electrical purposes”, in relation to the use of water, means the use of water for the purposes of an electricity undertaking;

“electricity undertaking” means any undertaking which generates and additionally, or alternatively, transmits, distributes, or supplies electricity, with all the assets and liabilities appertaining thereto, whether such undertaking is under the control of the State, the Zambezi River Authority, the Zimbabwe Electricity Supply Authority, a local authority, a company or other association of persons or a private individual;

“environmental impact assessment report” means a report on an environmental impact assessment that is referred to in section one hundred of the Environmental Management Act [Chapter 20:27];

“existing permit” means an existing permit or right to use water granted in terms of this Code or of any enactment repealed by this Code or any predecessor of such enactment;

“feedlot” means one or more enclosures or other structures on any piece of land in which animals or poultry are confined within a restricted area and fed mainly or entirely by means other than natural browsing, grazing for the purpose of bringing them into slaughter condition or maintaining their condition;

“final permit” means a permit for the use of water granted in terms section thirty-four;

“ground water” means all water which is—

- (a) beneath the surface of the ground; and
- (b) not visible on the land concerned; and includes water in boreholes and wells;

“hydrological station” means a place where measurements and observations of the flow or level of any surface or ground water are taken or made, as the case may be, and recorded;

“institutional purposes”, in relation to the use of water, means the use of such water for—

- (a) boarding-houses, guest farms, hotels, and other like enterprises; or
- (b) recreational clubs; or
- (c) missions or boarding-schools; or
- (d) a permanent labour force which, excluding the dependants of the labourers concerned, exceeds one hundred workers;

“irrigable area” means an area of land under or capable of being brought under irrigation;

“irrigation” means the artificial application of water to land for agricultural purposes;

“Interbasin transfer” is any transfer of water, for any purpose and regardless of the quantity involved, from one water basin to another;

“local authority” means—

- (a) a municipal council, town council or rural district council; or
- (b) a local board declared in terms of subsection (2) to be a local authority;

“local authority purposes”, in relation to the use of water, means the use of water for the purposes of the community within the area under the jurisdiction of a local authority and of such other persons as may conveniently be supplied with water by the local authority;

“mining purposes”, in relation to the use of water, means the use of water for mining purposes;

“Minister” means the Minister of Lands, Agriculture, Fisheries, Water and Rural Development or any other Minister to whom the President may, from time to time, assign the administration of this Code;

“miscellaneous purposes”, in relation to the use of water, means the use of water for any purposes other than agricultural purposes, electrical purposes, institutional purposes, local authority purposes, mining purposes, primary purposes, railway purposes, road purposes or local authority purposes;

“modification of a water right” is any change in the terms and conditions of a permit, whether voluntary or involuntary on the part of the permit holder, including, without being limited to

- (a) exchanges of water rights, or
- (b) changes in:
 - (i) the holder of the permit;
 - (ii) the nature, place, quantity, or time of use;
 - (iii) the point or means of diversion;
 - (iv) the place or manner of storage or application;
 - (v) the point of return flow; or
 - (vi) any combination of such changes;

“municipal uses” are uses of water by a publicly or privately owned public water supply system for the life, safety, health, and comfort of the inhabitants of a community and nonindustrial businesses serving those needs;

“National Water Authority” means the Zimbabwe National Water Authority established by section 3 of the Zimbabwe National Water Authority Act, 1998;

A “non-consumptive use” is a use of water withdrawn from the waters of the State in such a manner that it is returned to its waters of origin at or near its point of origin without substantial diminution in quality or quantity and without resulting in or exacerbating a low-flow condition.

“non-riparian owner” means an owner of land which is not riparian land;

“officer” means an officer appointed in terms of subsection (1) of section nine and includes the Secretary;

“owner” in relation to land, includes—

- (a) the State; and
- (b) the person registered in the Deeds Registry as the owner of the land or in whom the land is vested by law; and
- (c) any person lawfully holding or occupying land in accordance with any agreement or enactment empowering the State to allot land on the promise of title subject to the fulfilment by the allottee of certain conditions; and
- (d) in the case of land owned or controlled and managed by the Forestry Commission, the Forestry Commission; and
- (e) in the case of Communal Land, the Minister responsible for administration of the Communal Land Act [Chapter 20:04]; and
- (f) the legal representative of an owner of land who has died or become insolvent or is a minor or of unsound mind or otherwise under disability; and
- (g) the liquidator of an owner of land which is a company;

“permit” means a written authorization issued by the National Water Authority to a person entitling that person to hold and exercise a water right involving the withdrawal of a specific quantity of water at a specific time and place for a specific reasonable use as described in the written authorization and issued in terms of this Act;

“person” includes an individual, a partnership, a corporation, a municipality, a State (including this State), or international organization, or any other legal entity, public or private;

“physical integrity” of a water source means the volume of water necessary to

- (a) support commercial navigation of the water source as required by law or regulation;
- (b) preserve natural, cultural, or historic resources as determined by or as required law or regulation;
- (c) provide adequate recreational opportunities to the people of the State; and
- (d) prevent serious depletion or exhaustion of the water source;

“public interest” is any interest in the waters of the State or in water usage within the State shared by the people of the State as a whole and capable of protection or regulation by law, as informed by the policies and mandates of this Code;

“public water supply system” means:

- (a) a system for providing piped water to the public for human consumption if the system services and regularly serves a neighbourhood or community for their personal consumption daily for at least 60 days of the year;
- (b) any collection, treatment, storage, and distribution facilities under control of the operator of the system and used primarily in connection with the system and any collection or pretreatment storage facilities used primarily in connection with the system regardless of who owns or controls such facilities;

“reasonable use” means the use of water, whether in place or through withdrawal, in such quantity and manner as is necessary for economic and efficient utilization without waste of water, without

unreasonable injury to other water right holders, and consistent with the public interest and sustainable development;

“safe yield” of a water source is the amount of water available for withdrawal without impairing the long-term social utility of the water source, including the maintenance of the protected biological, chemical, and physical integrity of the source. It is determined by comparing the natural and artificial replenishment of the water source to existing or planned consumptive and non-consumptive uses;

“Sustainable development” means the integrated management of resources, taking seriously the needs of future generations as well as the current generation, ensuring equitable access to resources, optimizing the use of non-renewable resources, and averting the exhaustion of renewable resources;

“underground water” means water found within zones of saturation beneath the ground, regardless of whether flowing through defined channels or percolating through the ground and regardless of whether the result of natural or artificial recharge;

“unreasonable injury” means an adverse material change in the quantity, quality, or timing of water available for any lawful use caused by any action taken by another person if:

- (a) the social utility of the injured use is greater than the social utility of the action causing the injury, or
- (b) the cost of avoiding or mitigating the injury is materially less than the costs imposed by the injury;

“waste of water” means causing, suffering, or allowing the consumption or use of the waters of the State for a purpose or in a manner that is not reasonable;

“water basin” is an area of land from which all waters drain, on the surface or beneath the ground, to a common point. In any administrative or judicial proceeding pursuant to this Code, the water basin shall be measured at the lowest point relevant to the issue to be determined;

“water emergency” is a severe shortage of water relative to lawful demand such that restrictions taken under a declaration of water shortage are insufficient to protect public health, safety, and welfare in all or any part of the State. It is recognized in law only as declared by the National Water Authority;

“water right” is a right to withdraw a certain portion of the waters of the State in compliance with the provisions of this Code, whether subject to a permit or otherwise;

“water shortage” is a condition, in all or any part of the State, where, because of droughts or otherwise, the available water falls so far below normally occurring quantities that substantial conflict among water users or injury to water resources are expected to occur. It is recognized in law only as declared by the National Water Authority;

“waters of the State” include all waters, on the surface, under the ground, and in the atmosphere, wholly within or bordering the State or within the jurisdiction of the State;

“water source” includes any lake, pond, river, stream, creek, run, spring, or other water flowing or lying on or under the surface, or contained within an aquifer, or found within the atmosphere, regardless of the quantity of water or its duration.

“withdrawal” is the removal of surface or underground water from its natural course or location or exercising physical control over surface or underground water in its natural course or location, by any means whatsoever, regardless of whether the water is returned to its waters of origin, consumed, or discharged elsewhere.

3. Application of this Code in relation to other laws

- (1) Except where it is expressly provided to the contrary, this Code shall be construed as being in addition to and not in substitution for any other law which is not in conflict or inconsistent with this Code.
- (2) If any other law is in conflict or inconsistent with this Code, this Code shall prevail.

PART II

GENERAL PRINCIPLES OF WATER MANAGEMENT AND FUNCTIONS OF THE MINISTER

4. Water vested in the President

Subject to this Act, all water is vested in the President.

5. Water rights and principles of water management

- (1) Every person shall have a right to –
 - (a) safe, clean, and portable water;
 - (b) access to water information and conservation of water for the benefit of present and future generations and to participate in the implementation of the promulgation of reasonable legislative, policy and other measures that—
 - (i) prevent pollution;
 - (ii) protect biodiversity and aquatic systems while promoting sustainable development,
- (2) Subject to this Act, the following principles of water management shall apply to all persons and all government agencies, where those actions significantly affect water—
 - (a) water management must place the public interest at the forefront of its concern;
 - (b) water use must be efficient and productive;
 - (c) the impacts of climate change on water resources are increasingly evident therefore water management must be inclusive of climate adaptation and resilience;
 - (d) the participation of all interested and affected parties in water governance must be promoted and all people must be given an opportunity to develop the understanding, skills, and capacity necessary for achieving equitable and effective participation in tandem with gender mainstreaming;
 - (e) rule of law must be respected and protected to promote efficiency, equity, order, conjunctive management, and stability in the utilisation of the water resources of the State over time;
 - (f) property rights must be respected to create an environment that encourages investment and private sector participation in water infrastructure development and water management services;
 - (g) planning and management of water resources is essential for the health, safety, and well-being of people, nature, and industry including systematic plans to allocate water

- efficiently and fairly during times of water scarcity or emergency in a manner that promotes economic efficiency and social equity;
- (3) The right to water and principles of water management set out in subsections (1) and (2) shall—
- (a) serve as the general framework within which plans for the management of the water shall be formulated; and
 - (b) serve as guidelines for the exercise of any function concerning the use, protection or management of water in terms of this Act or any other enactment; and
 - (c) guide the interpretation, administration and implementation of any other law concerning the use, protection or management of water.

6. General functions of the Minister

- (1) For the purposes of this Code, the functions of the Minister shall be—
- (a) to develop policies to guide the orderly and integrated planning of the optimum development, utilization and protection of the State's water resources in the national interest; and
 - (b) to ensure the availability of water to all citizens for primary purposes and to meet the needs of aquatic and associated ecosystems particularly when there are competing demands for water; and
 - (c) to ensure the equitable, efficient, and sustainable allocation of the available water resources in the national interest for the development of the rural, urban, industrial, mining, and agricultural sectors.
- (2) In the performance of his functions in terms of subsection (1), it shall be the duty of the Minister—
- (a) to provide overall policy guidelines on the development, and sustainable utilization of water resources, ensuring that all components of the water cycle such as ground water surface water, evaporation, clouds, and rainfall are recognized as being interdependent and forming part of a single water cycle;
 - (b) to ensure that water resources are managed, sustainably utilized, and conserved in a manner consistent with climate change and national environmental approaches provided for in any enactment;
 - (c) to encourage participation by consumers in all the sectors referred to in paragraph (c) of subsection (1) and catchment councils in the development and distribution of water resources;
 - (d) to secure the provision of affordable water to consumers in under-privileged communities;
 - (e) to safeguard the interests of occupants of Communal Land;
 - (f) to ensure that water resources are utilized at all times in a sustainable and efficient manner having special regard to its value and the economic and other benefits that may be derived from it;
 - (g) to give effect to any international agreement, to which Zimbabwe is a party, on shared water course systems in a spirit of mutual co-operation;
 - (h) to ensure that research is carried out and information is obtained and kept on hydrological and hydrogeological matters such as—
 - (i) the quality and quantity of the State's water resources;
 - (ii) the utilization of the State's water resources;
 - (iii) resources needed to develop the State's water resources sufficient to meet the reasonable needs of the nation;

- (i) to promote efficiency, economy and sustainability in the utilization of water resources and to encourage the use of water saving technologies;
- (j) to regulate the supply of water by any person to consumers with respect to—
 - (i) the quality of the service provided to consumers; and
 - (ii) the protection of consumers from exploitation; without, however, impairing the efficiency of the person's operations;
- (k) to fix criteria for water allocation and the issue of permits for the use of water by catchment councils;
- (l) generally, to fix standards to be maintained in the utilization, conservation, and management of water resources in respect of environmental water quality standards as set by the Minister responsible for the administration of the Environmental Management Act [Chapter 20:27].

7. Secretary and other officers

- (1) Subject to the Public Service Act [Chapter 16:04], there shall be appointed, in addition to the Secretary, such other officers as may be necessary to carry out the provisions of this Act.
- (2) In the exercise of their functions under this Act, officers shall be subject to the directions and orders of the Minister.

8. Delegation of powers by the Minister and Secretary

- (1) The Minister may delegate to the Secretary or to the National Water Authority such of his functions under this Code as he thinks fit, other than the functions conferred on him by section six
- (2) The Secretary may delegate to any other officer or to the National Water Authority such functions—
 - (a) conferred or imposed on him by or in terms of this Code; or
 - (b) delegated to him in terms of subsection (1); as he thinks fit:
 Provided that he shall not so delegate any function delegated to him in terms of subsection (1) without the consent of the Minister.
- (3) All functions delegated by the Secretary in terms of subsection (2) shall be exercised and carried out subject to the directions and orders of the Secretary.

9. Powers of officers.

- (1) Subject to this Act, an officer may, for the better conservation and use of the water resources of Zimbabwe or for the control or prevention of the pollution of water, do all or any of the things set out in the Schedule.
- (3) A person who fails to comply with the order within the period specified in the order shall be guilty of an offence and liable to a fine not exceeding level five or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

10. Powers in respect of hydrological stations.

- (1) If the Minister or the National Water Authority—
 - (a) wishes to construct or maintain a hydrological station on any land; and
 - (b) is unable to agree on reasonable terms with the owner of the land referred to in paragraph (a) concerning the construction or maintenance referred to in that paragraph;
 the Minister or, as the case may be, the National Water Authority with the consent of the Minister, may, subject to subsection (2), compulsorily acquire such land or rights or interests over land as are necessary to construct or maintain a hydrological station on the land concerned.

- (2) Parts III, V and VIII of the Land Acquisition Act [Chapter 20:10] shall apply, mutatis mutandis, to the exercise by the Minister or the National Water Authority of powers in terms of subsection (1).

PART III
ESTABLISHMENT, FUNCTIONS AND PROCEDURES OF CATCHMENT COUNCILS

11. Establishment of catchment councils

- (1) The Minister, in consultation with the Zimbabwe National Water Authority may, by statutory instrument—
- (a) establish a catchment council in respect of an area of a river system specified in that instrument; and
 - (b) fix the number of members representing water users in the river system who shall constitute the catchment council and the manner in which they shall be elected or appointed; and
 - (c) assign a name to the catchment council; and
 - (d) prescribe the procedure at the meetings of or to be followed by the catchment council in the discharge of its functions; and
 - (e) fix the remuneration, if any, and allowances payable to members of a catchment council from funds allocated for that purpose from the Water Levy Fund to meet the reasonable expenses incurred by members in connection with the business of the catchment council.
- (2) A catchment council shall be a body corporate capable of suing and being sued in its own name and, subject to this Code, of performing such functions as a body corporate may by law perform.
- (3) The Minister may, by statutory instrument—
- (a) abolish a catchment council; or
 - (b) subject to subsection (1) of section eleven, alter the area of jurisdiction of a catchment council; or
 - (c) alter the membership or the name of a catchment council.

12. Functions of catchment councils.

- (1) Subject to this Code, a catchment council shall—
- (a) in conjunction with the National Water Authority, prepare an outline plan for its river system in accordance with this Code; and
 - (b) determine applications made and grant permits required in terms of this Code; and
 - (c) regulate and supervise the exercise of rights to, and use of, water in respect of the river system for which it is established; and
 - (d) to supervise the performance of functions by sub-catchment councils; and
 - (e) ensure proper compliance with this Code; and
 - (f) perform any other function conferred or imposed upon it in terms of this Code.
- (2) The Minister may, by written notice to a catchment council, confer all or any of the powers of officers upon a catchment manager or on all or any of the members of a catchment council, and may at any time amend or revoke any such notice.
- (3) For the better exercise of its functions, a catchment council may delegate to sub-catchment councils, either absolutely or subject to conditions, such of its functions as it thinks fit: Provided that —
- (a) the power to grant permits shall not be delegated to a sub-catchment council;

- (b) the delegation shall not prevent the catchment council from exercising the functions concerned.
- (c) the catchment council may amend or withdraw any decision of a sub-catchment council in the exercise of its delegated functions.

13. Powers of catchment councils.

- (1) A catchment council may, subject to this Code and in regard to water within the area of the river system for which it is established—
 - (a) grant an application for—
 - (i) a permit; or
 - (ii) a provisional permit; or
 - (iii) a temporary permit;
 for the use of water subject to such conditions as it thinks fit to impose or may refuse the application;
 - (b) on an application by any person to whom an existing permit has been granted for a revision of an existing permit, investigate the matter and make an appropriate order on the matter;
 - (c) on an application by any person in regard to—
 - (i) a dispute concerning the abstraction, appropriation, control, diversion or use of water; or
 - (ii) any matter which may be brought before a catchment council in terms of this Code; investigate the dispute or matter and make an appropriate order;
 - (d) at the request of the Minister or the Administrative Court, investigate any matter concerning the abstraction, appropriation, control, diversion or use of water and report on the matter;
 - (e) at the request of the Minister—
 - (i) investigate, define and record the right to the use of the water of any channel, reservoir or public stream, aquifer or other source of supply;
 - (ii) in the case of any watercourse the character of which has not already been defined by the catchment council, decide whether such watercourse is a public stream or not;
 - (iii) report for his information on—
 - A. the use or waste of water abstracted from any public stream;
 - B. the advisability of interference with or the removal of any dam, weir or other structure in the course of a public stream and, if such interference or removal is recommended, the compensation, if any, to be paid to any affected person;
 - C. any matter arising out of this Code;
 - (f) at the direction of the Minister, terminate any investigation requested by them in terms of paragraph (d) or (e).
 - (g) on its own motion, terminate any investigation referred to in paragraph (b) or (c);
 - (h) do anything which may be done by a catchment council in terms of this Code or any other enactment.
- (2) In the exercise of any power referred to in subsection (1), a catchment council may—
 - (a) make all such inspections as may be necessary; and
 - (b) call and take expert advice on any matter; and
 - (c) without derogation from section ninety-three, revise or cancel any existing permit.

14. Principles to be observed by catchment councils in considering applications for Permits for use of water.

- (1) Subject to the priorities in the utilisation and allocation of water set out in an outline plan in considering applications for permits for the use of water, a catchment council shall—
 - (a) in the case of more than one application for the use of the same water, have regard to—
 - (i) the need to achieve, as far as possible, an equitable and sustainable distribution of the available water resources;
 - (ii) the needs of each applicant; and
 - (iii) the likely economic and social benefits of the proposed use;
 - (b) in granting a permit for the use of water for agricultural purposes, have regard to—
 - (i) the extent and nature of all land, wherever situated, irrigable by the water concerned; and
 - (ii) the suitability for irrigation of the land concerned; and
 - (iii) the efficiency of the proposed method or possible methods of using the water concerned;
 - (c) have regard to the economic aspects of the proposed scheme, undertaking or work;
 - (d) if the use will result in effluent requiring treatment and disposal, order the applicant to ensure that the proposed method of treatment and disposal of the effluent complies with Environmental Management Act [20:27];
 - (e) take into consideration such matters, other than the matters referred to in paragraphs (a) to (d), as may appear to be relevant to its investigations.
- (2) Subject to this Code, the Minister, after consultation with the National Water Authority and any catchment council concerned, may prescribe—
 - (a) the matters which shall be taken into account in considering the respective priority of different uses of water; and
 - (b) the manner of allocating water between consumers who have competing needs for water; and
 - (c) the methods of allocating water.

15. Establishment and functions of sub-catchment councils.

- (1) The Minister may, by statutory instrument—
 - (a) establish a sub-catchment council for any part of a river system specified in the notice; and
 - (b) fix the number of members who shall constitute a sub-catchment council and the manner in which they shall be elected; and
 - (c) assign a name to the sub-catchment council.
- (2) The Minister may, by a statutory instrument—
 - (a) abolish a sub-catchment council; or
 - (b) alter the area for which a sub-catchment council was established; or
 - (c) alter the membership or the name of a sub-catchment council.
- (3) A sub-catchment council shall be a body corporate capable of suing and being sued in its own name and, subject to this Act, of performing such functions as a body corporate may by law perform.
- (4) Subject to this Code and without derogation from the powers of a catchment council, a sub-catchment council shall—
 - (a) regulate and supervise the exercise of rights to water within the area for which it was established; and

- (b) perform such other functions as may be conferred or imposed upon it in terms of this Code.
- (5) With the approval of the Minister, a sub-catchment council may –
 - (a) levy rates upon persons who hold permits within the area for which the sub-catchment council was established; and
 - (b) charge fees for any service rendered by it.
- (6) Any rates levied or fees charged by a sub-catchment council in terms of subsection (5) shall be held by the sub-catchment council in a fund for which proper accounts shall be kept and maintained.
- (7) A sub-catchment council shall apply the moneys in the fund referred to in subsection (6) on expenses of the sub-catchment council in the performance of its functions.
- (8) In the performance of its functions, a sub-catchment council may require any holder of a permit within the area for which it was established to take such steps as it may specify to maintain in efficient repair any water works connected with his permit.
- (9) Any holder of a permit who is aggrieved by a requirement of a sub-catchment council in terms of subsection (8) may, within thirty days of the requirement, appeal to the Administrative Court in terms of Part VII.
- (10) If any person fails to comply with a requirement in terms of (8) which has not been set aside in terms of subsection (9), the sub-catchment council may itself take the steps concerned and recover the cost of doing so from such person in any court of competent jurisdiction.
- (11) The Minister may, by written notice to the sub-catchment council concerned, confer all or any of the powers of officers upon all or any of the members of the sub-catchment council, and may at any time amend or revoke any such notice.

16. Persons interested in matters before catchment council.

- (1) Before proceeding to the determination of any matter submitted to it, a catchment council shall satisfy itself that all persons who, in its opinion, have an interest which is reasonably likely to be adversely affected by the determination have been duly notified of the proceedings.
- (2) Any person who has an interest in the determination of any matter submitted to a catchment council may—
 - (a) appear before the catchment council; and
 - (b) present such argument or produce such evidence before the catchment council as they think fit.
- (3) An irrigation company shall, if any matter before a catchment council arises wholly or partly within the area of the combined water scheme concerned, be taken as having an interest referred to in subsection (2).

17. Costs.

The costs payable in respect of any proceedings before a catchment council shall be as prescribed.

18. Orders of catchment council.

- (1) Subject to this Code, a catchment council may make such award or order on any proceedings brought before it as it thinks fit.
- (2) An award or order of a catchment council—
 - (a) shall be reduced to writing and a copy thereof, certified by the chairman of the catchment council, shall, if such award or order is made on the hearing and

- determination of a dispute or application, be served on each party to the dispute or application, as the case may be; and
- (b) shall be binding on each party to the dispute or application concerned, if any, unless the award or order is set aside on appeal.
- (3) An award or order of a catchment council for the payment of a sum of money by a party to a claim, dispute, appeal or application shall have the same effect as an order of the High Court for such payment unless such award or order is set aside on appeal: Provided that an appeal against the decision of a catchment council shall not suspend the decision, order, award or finding appealed against.

19. Catchment manager.

- (1) For the day-to-day management and administration of the affairs of a catchment council, there shall be a catchment manager who shall be an employee of the National Water Authority.
- (2) In the performance of his functions, a catchment manager shall act on the advice of the catchment council and shall be supervised by the National Water Authority.
- (3) A catchment council may delegate to the catchment manager any of its functions imposed upon it in terms of section twelve or thirteen.

20. Powers of catchment managers.

- (1) Subject to this Code, a catchment manager may, if the catchment council is not meeting—
- (a) on an unopposed application or claim—
- (i) grant permits for the use of water;
 - (ii) extend the duration of a temporary permit or provisional permit;
 - (iii) grant interdicts in respect of matters cognizable by a catchment council;
 - (iv) cancel existing permits;
 - (v) subject to section 11 of the Communal Land Act [Chapter 20:04], award servitudes;
 - (vi) grant an application modify water rights; and
- (b) on an opposed or unopposed application—
- (i) postpone or further postpone the consideration of the matter;
 - (ii) cause any investigation which he considers necessary for the determination of the matter to be carried out;
 - (iii) authorize the proof of all or any of any facts in a matter by affidavit;
 - (iv) on such conditions as to costs or otherwise as he thinks fit, authorize an applicant to withdraw his application: Provided that a catchment manager may not exercise any of the powers set out in this paragraph on an opposed application unless the applicant has given notice of his application to the person opposing the application;
- (c) exercise, mutatis mutandis, the powers referred to in paragraphs (f) and (g) of subsection (1) of section thirteen.
- (2) Notwithstanding anything in this Code, the parties to a dispute may, if they so wish, state the dispute in writing signed by or on behalf of each party and submit the dispute to the catchment manager for consideration and decision.
- (3) Any decision made by a catchment manager on a dispute submitted to him in terms of subsection (2) shall—
- (a) have the same force; and
 - (b) be subject to appeal in the same manner; as if it were a decision of a catchment council.

21. Services by National Water Authority to catchment councils.

The National Water Authority shall provide secretarial, administrative, clerical, and technical services to catchment councils.

22. Inspections.

- (1) Any member of a catchment council may, for the purpose of—
 - (a) enforcing this Code in circumstances where there are reasonable grounds for believing that the search or entry is necessary for the prevention, investigation or detection of a criminal offence; or
 - (b) protecting the rights and freedoms of other persons; at all reasonable times enter upon any land and, after having informed the person who is for the time being in charge of the land of the purpose of their visit, make such inspection and inquiry as they may consider necessary for the proper enforcement of this Code.
- (2) If any person without just cause refuses to permit a member of a catchment council to conduct any inspection or inquiry in terms of subsection (1), or hinders or obstructs a member of a catchment council in the exercise of their powers in terms of subsection (1), they shall be guilty of an offence and liable to a fine not exceeding level five or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.
- (3) In addition to the penalties specified in subsection (2), the refusal, hindering or obstruction of a member of a catchment council in the exercise of his powers in terms of subsection (1) shall afford a ground for refusing the grant of any permit in terms of this Code or the rescinding of any existing permit.
- (4) A catchment council may delegate its functions in terms of this section to an officer, the catchment manager or any other employee of the National Water Authority, and subsections (2) and (3) shall apply mutatis mutandis.

**PART IV
GENERAL PROVISIONS**

General Obligations and Prohibitions

23. The Obligation to Make Only Reasonable Use of Water

No person shall make any use of the waters of the State except in so far as the use is reasonable as determined pursuant to this Code.

24. No Unreasonable Injury to Other Water Rights

No person using the waters of the State shall cause unreasonable injury to other water uses made pursuant to valid water rights, regardless of whether the injury relates to the quality or the quantity impacts of the activity causing the injury.

25. Protection of Property Rights

- (1) Nothing in this Code authorizes the taking of any existing vested property right in the use of water except for just compensation.
- (2) Proof of compliance with this Code is not a defence in any legal action not founded on this Code except to the extent that the provisions of this Code expressly supersede prior law on which such claim is founded.

Transitional Provisions

26. Prior Laws Repealed

All prior laws inconsistent with the Code are repealed on the effective date of the Code.

27. Continuation of Prior Orders, Permits, Rules, and Regulations

(1) Upon the effective date of this Code, all prior inconsistent orders, rules, and regulations are repealed.

(2) Prior consistent orders, rules, and regulations, even if made pursuant to any statute repealed by this Code, shall remain in effect according to their terms or until superseded by new orders, rules, or regulations made pursuant to this Code.

(3) All prior permits shall remain in effect under this Code only until replacement permits are issued and shall remain in effect for that period even though the prior permit was issued pursuant to a statute repealed by this Code.

(4) A replacement permit issued under this Code may contain such permit terms and conditions as are consistent with this Code, regardless of whether those terms or conditions are consistent with the terms or conditions of the prior permit.

PART V

WATERS SUBJECT TO ALLOCATION

Waters Subject to Allocation

28. Waters Subject to Allocation

Except as expressly exempted pursuant to this chapter, all waters of the State are subject to allocation in accordance with the provisions of this Code.

29. Certain Shared Waters Exempted from Allocation

Water from a transboundary water source subject to allocation by the National Water Authority or to management under an international treaty is not subject to allocation under this Code, except in so far as such allocation is consistent with the National Water Authority's mandate, or international agreement ratified by the Republic of Zimbabwe.

30. Small Water Sources Exempted from Allocation (optional)

(1) A surface water source that originates on a person's property is not subject to allocation under this Code if the total water basin down to the point the water source leaves the property in question is less than 8 acres and the water is used on the tract of land on which it originates.

(2) Exemption from allocation under this section does not preclude the application of orders or regulations adopted pursuant to this Code necessary to protect minimum flows or levels or during water emergencies.

Protected Minimum Flows or Levels

31. Protected Minimum Flows or Levels Not to Be Allocated or Withdrawn

(1) The National Water Authority shall establish by regulation the minimum flow or level in any water source that is not subject to allocation under this Code except as provided in this Part.

(2) Every person exercising a water right pursuant to this Code is required to protect the prescribed minimum flows or levels when exercising such right.

32. Standards for Protected Minimum Flows or Levels

The National Water Authority shall establish a minimum flow or level as the larger of the amounts necessary for the biological, chemical, and physical integrity of the water source, taking into account normal seasonal variations in flow and need.

33. Effects of Water Shortages or Water Emergencies

(1) Threats to impair the minimum flows or levels established by this section justify the National Water Authority to declare a water shortage or water emergency as appropriate.

(2) During periods of water emergency, the National Water Authority may allocate waters normally within protected minimum flows or levels when necessary to prevent serious injuries to water uses established before the beginning of the water emergency, but only in so far as such allocation does not permanently impair the biological, chemical, or physical integrity of the water source.

(3) To facilitate planning for water emergencies, the National Water Authority shall establish emergency minimum flows or levels, which are not subject to allocation except to prevent grave threats to human life or health under circumstances where water is not available from other sources for coping with these needs.

34. Burden of Proof

(1) In any proceeding under this Code, the person proposing to withdraw water from a water source shall have the burden of showing by a preponderance of the evidence that the proposed withdrawal will not impair the protected minimum flows or levels as determined under this section.

(2) Nothing in this Code authorizes any person to withdraw water from a source that would impair its established protected minimum flow or level without first securing authorization to do so from the National Water Authority or a court reviewing a decision by the National Water Authority.

PART VI ADMINISTRATION

General Administrative Authority

35. Basic Responsibility and Authority

The National Water Authority is responsible for general supervision and control over the development, conservation, and use of the waters of the State and is vested with all powers necessary to accomplish the purposes for which the National Water Authority is organized, insofar as those powers are delegable by the legislature.

36. Non-Impairment of General Powers

The enumeration of any particular powers granted shall not be construed to impair any general grant of power contained in this Code or to limit any grant of power of the same class as those enumerated.

37. General Administrative Powers

In addition to any other powers and duties, the National Water Authority is authorized to—

- (1) administer all funds made available to the Agency for the effectuating of this Code and to disburse those funds for proper purposes, including the State Water Fund and the Interbasin Compensation Fund;
- (2) accept grants, gifts, bequests, or the like of anything to be used to carry out the purposes, powers, or duties of the National Water Authority;

- (3) carry out data collection, surveys, research, and investigations into all aspects of waters of the State, including the availability, use, quality, and quantity of those waters;
- (4) prepare, publish, and disseminate information and reports concerning its activities as the National Water Authority deems necessary;
- (5) contract and execute other instruments necessary or convenient to the exercise of its powers with any person;
- (6) appoint and remove officers and employees, including specialists and consultants, for the purpose of carrying out its powers and functions;
- (7) acquire, hold, sell, lease as lessor or lessee, lend, transfer, or dispose of real and personal property, or interests therein, as may be necessary or convenient to the performance of its functions, including the acquisition of real property for the purpose of conserving and protecting water and related resources;
- (8) hold regular and special meetings, pursuant to procedures established by regulation; and
- (9) keep full and proper records of its work, including its proceedings, all field notes, computations, and facts made or collected, all of which shall be part of the records of its office and property of the State and, as such, open to the public during business hours with copies to be provided at the cost of reproduction, subject only to privileges of confidentiality as provided in this Code or other laws.

38. Special Funds Created

- (1) The National Water Authority shall create and administer a State Water Fund to be used for the exclusive purpose of upgrading the environmental, ecological, or aesthetic values of the waters of the State, including, when the National Water Authority deems it appropriate, the repurchase of permits before the permit expires.
- (2) The National Water Authority shall create and administer an Interbasin Compensation Fund to provide appropriate compensatory benefits, as determined by the National Water Authority, to the water basin of origin for which the monies in the Fund are received

39. Regulatory Authority of the State Agency

- (1) The National Water Authority shall adopt such regulations as are necessary or convenient to administer the provisions of this Code.
- (2) Regulations shall establish, without being limited to, the following:
 - (a) the form of an application for a permit under this Code;
 - (b) procedures for hearings required under this Code;
 - (c) procedures for reviewing and acting on applications for permits under this Code;
 - (d) detailed methods for identifying and notifying persons who might be adversely affected by any action of the National Water Authority allocating, conserving, developing, or managing the waters of the State;
 - (e) requirements for reporting volumes and rates of withdrawal;
 - (f) methods for determining what portion of a withdrawal constitutes a consumptive use;
 - (g) procedures for developing and implementing the plans and strategies adopted under this Code;
 - (h) a schedule of fees for water permits.

40. Application Fees

- (1) The National Water Authority shall establish a schedule of application fees to be paid by every person who applies for a permit or registers a water use.

- (2) Application fees shall equal the National Water Authority's expenses for processing the permit and registration provisions of this Code.

41. Water Use Fees

- (1) The National Water Authority shall collect water use fees from every person withdrawing water under a permit issued pursuant to this Code.
- (2) The National Water Authority shall, by regulation of general application after public notice and hearings, establish a schedule of reasonable water use fees as compensation for the value of water used.
- (3) Regulations to set water use fees shall become effective 60 days after publication by the National Water Authority unless disapproved by either the Secretary or Minister during that period.
- (4) Water use fees shall vary only according to the class of use as determined by the purpose or quantity of use, except that the National Water Authority may conduct an auction to determine the water use fees for a particular source.
- (5) Water use fees shall be paid into the general funds of the State.

42. Protection of Confidential Business Information

- (1) Any confidential business information in any information provided by any person to the National Water Authority or obtained by the National Water Authority through its investigatory powers, under this Code or under any order, permit term or condition, or regulation made pursuant to this Code, shall be kept confidential by the National Water Authority.
- (2) A person claiming the privilege of confidential business information must identify the information allegedly embodying the confidential business information which thereafter will be kept in a separate place from the general records pertaining to that applicant.
- (3) No person shall be able to claim as confidential business information data reporting the amount of water withdrawn or consumed pursuant to that person's permit.
- (4) Presumptively confidential information will be made available only to employees of the National Water Authority in so far as is necessary to fulfil their duties pending a final determination of the validity of the claimed privilege.
- (5) The National Water Authority will from time-to-time review claims of privilege for confidential business information and, after affording the person claiming the privilege a confidential hearing upon that person's request, shall release to the general records any information determined by the Agency not to embody confidential business information.
- (6) The disclosure or use of any information regarding confidential business information privileged under this section in any administrative or judicial proceeding shall be determined by the rules of evidence.
- (7) A person claiming the privilege shall be provided notice 10 business days before any disclosure or use in any administrative or judicial proceeding.
- (8) The National Water Authority will not oppose any motion by the person claiming the privilege to intervene as a party to the administrative or judicial proceeding in which the disclosure or use is planned.

Planning Responsibilities

43. The Comprehensive Water Allocation Plan

- (1) The National Water Authority shall develop and adopt a comprehensive water allocation plan within five (5) years of the effective date of this Code and shall review and revise the plan from time to time thereafter.
- (2) The plan shall collect data and devise strategies for achieving sustainable development of the waters of the State. The plan shall include, but need not be limited to:
 - (a) identification of existing uses of the waters of the State;
 - (b) estimates of future trends in uses of the waters of the State, including the current and future capabilities of public water supply systems to provide an adequate quantity and quality of water to their service areas and the developmental choices necessary to attain the optimum reasonable use of water in light of climate change;
 - (c) identification of the boundaries of the water basins of the major water sources within the State;
 - (d) an estimate of the safe yield for each major water source and, where applicable:
 - (i) the minimum flows and levels necessary, during normal and drought conditions, to preserve the protected biological, chemical, and physical integrity of the water source; and
 - (ii) the prime recharge areas for underground water;
 - (e) an evaluation of the reasonableness of various classes of use;
 - (f) a description of systems for allocating the waters of the State during a water shortage or emergency; and
 - (g) a set of recommended goals for the use, management, and protection of the waters of the State and related land resources, with evaluations of alternative recommendations according to economic, environmental, hydrologic, jurisdictional, legal, social, climate change and other relevant factors.
- (3) The National Water Authority shall provide reasonable opportunities for all interested persons to comment on the plan while it is being formulated, including, where appropriate, one or more public hearings on the proposed plan.

44. Drought Management Strategies

- (1) The National Water Authority shall devise and publish a set of drought management strategies in anticipation of reasonably foreseeable water shortages and water emergencies.
- (2) The drought management strategies for each major water source within the State shall include, but not be limited to:
 - (a) criteria for identifying the onset and severity of a water shortage or water emergency;
 - (b) a specification of the classes of uses and their priorities, based on their relationship to the public interest as determined according to the policies, standards, and grounds established in this Code;
 - (c) measures for auditing water use and detecting leaks;
 - (d) measures for overall system rehabilitation;
 - (e) a registry of conservation measures for public and private buildings, including, under appropriate conditions, a moratorium on new construction;
 - (f) registered private agreements to curtail use in times of water shortage or water emergency;
 - (g) possible bans or restrictions on certain water uses; and other necessary contingency plans.

45. The Nationwide Data System

- (1) In cooperation with the political subdivisions of the State, of local governmental organizations, and of agencies created for the purpose of utilizing or conserving the waters of this State, the National Water Authority shall establish and maintain a statewide system to gather, process, and distribute information on the availability, distribution, quality, and use of the waters of the State, including data on all permits issued under this Code.
- (2) The National Water Authority shall invite interested governmental agencies including interstate and international agencies with responsibility for waters internationally and regionally to join this data system and shall cooperate with any such agency choosing to join the system.
- (3) Information gathered in the nationwide data system, subject to the protection provided to confidential business information under section 49, shall be made available to any person on payment of a reasonable fee to cover the expenses of making the information available to that person.

46. Planning Advisory Committees

- (1) The National Water Authority shall establish planning advisory committees to assist in the formulation of its plans, programs, and strategies, providing by regulation for the constitution and functioning of the committees.
- (2) Advisory committees shall be inclusive and consist of representatives from agencies or branches of the government, local authorities, communal lands or branches of interstate or international organizations with responsibility for water of the State, other agencies or branches of the State, other States sharing the water basin under study, subdivisions of the State, and all persons or groups interested in or directly affected by any proposed or existing plan or strategies.

Coordination with Other Branches or Levels of Government

47. Cooperation with other States and International Organizations

The National Water Authority shall cooperate with any appropriate agency or representative acting under the authority of an international treaty ratified by the Republic of Zimbabwe when such agency, officer, or body's responsibilities relate to the management, conservation, or development of the waters of the State and the National Water Authority determines that cooperation is consistent with this Code.

48. Cooperation with other Agencies and Local Government

- (1) The National Water Authority shall cooperate with local government and with agencies created for the purpose of utilizing or conserving the waters of this State, assisting such entities to coordinate facilities, and participating in the exchange of ideas, knowledge, and data with such other units of government.
- (2) Upon the written request of any other unit of government within the State, the National Water Authority is authorized to provide water supply planning assistance to that unit of government in so far as Agency resources allow.
- (3) Water supply planning assistance as authorized in subsection (2) of this section shall relate to
 - (a) applications for grants or permits,
 - (b) drought management strategies,
 - (c) evaluation of alternative water sources,
 - (d) the necessity for new enabling legislation,

- (e) steps for conserving water, or
 - (f) such other planning activities as the National Water Authority determines to be appropriate.
- (4) The National Water Authority shall maintain an advisory staff of experts for the purposes set forth in this section.

49. Duty to Cooperate

- (1) All local, regional, special purpose, and State governmental units within this State shall cooperate with the National Water Authority in carrying out of its responsibilities under this Code.
- (2) Every official of the State or of any county or local government, including agencies created for the purpose of utilizing or conserving the water of this State, is under a duty, upon request, to assist the National Water Authority or its duly authorized employees in the enforcement of the provisions of this Code or of any order, permit term or condition, or regulation made pursuant to this Code.

50. Combined Permits

The National Water Authority and other interested units of the government of the State shall combine a permit issued under this Code with a permit issued under authority of any law of the State when that combination would improve the administration of both laws.

**PART VII
APPEALS AND DISPUTE RESOLUTION**

Appeals

51. Interpretation in Part VII

In this Part –

“authority” means the Minister, the Secretary, a catchment council or the National Water Authority, as the case may be.

52. Composition of Administrative Court for the purposes of this Act

- (1) For the purpose of hearing any appeal or matter referred to it in terms of this Code, the Administrative Court shall consist of a president of the Court and at least two assessors appointed in terms of subsection (2).
- (2) Subject to subsection (3), of the assessors referred to in subsection (1)—
 - (a) one shall be appointed from a list of persons approved by the Chief Justice who are or have been Government water engineers for a period of not less than five years; and
 - (b) one shall be appointed from a list of persons who are not members of the Public Service nominated by the Presidents of the Administrative Court and approved by the Chief Justice.
- (3) Whenever the Administrative Court is required to hear and determine any matter the determination of which may require special knowledge not ordinarily possessed by an assessor referred to in paragraph (b) of subsection (2), the president of the Administrative Court may, after consultation with the Chief Justice, appoint a special assessor in lieu of or in addition to the assessor referred to in paragraph (b) of subsection (2).

53. Appeals against decisions of authority

- (1) Any person who is aggrieved by any decision, direction, order or action of any authority in terms of this Code may appeal against the decision, direction, order or action to the Administrative Court in terms of this Part.
- (2) A notice of appeal in terms of this section shall be lodged with the Registrar of the Administrative Court and the authority concerned within thirty days of the date of the decision, direction, order or action appealed against.
- (3) On an appeal in terms of this section, the Administrative Court may confirm, vary or set aside the decision, direction, order or action appealed against or give such other decision as in its opinion the authority concerned ought to have given, and make such order as to costs as it thinks fit.
- (4) The authority concerned shall comply with any decision of the Administrative Court made in terms of this section.
- (5) The Administrative Court Act [Chapter 7:01], shall apply in relation to the procedure and powers of the Administrative Court on an appeal in terms of this Part.
- (6) Where an appeal has been noted in terms of this Code, the decision, direction, order or action appealed against shall, notwithstanding the noting of the appeal, remain valid pending the determination of the matter by the Administrative Court.

Dispute Resolution

54. Support for Informal Dispute Resolution

When the authority determines that an agreement, executed in writing by all persons having an interest in a dispute regarding the waters of the State and filed with the authority, is consistent with the policies and requirements of this Code, the authority shall approve the agreement, and the agreement shall thereafter control in place of a formal order or regulation of the authority until terminated by agreement of the persons bound by the agreement or terminated by the authority because the agreement or its effects have become inconsistent with the policies or requirements of this Code.

55. Conciliation or Mediation

- (1) With the consent of persons involved in disputes over water or the allocation thereof, the authority may conduct informal negotiations to encourage and assist the conciliation, mediation, or other informal resolutions of the dispute.
- (2) The authority shall recover from the parties the expenses of its activities in encouraging and assisting the conciliation or mediation of disputes, allocating the expenses to the parties in the same proportions as their water use fees bear to each other.

56. Administrative Resolution of Disputes among Holders of Permits to Withdraw Water

- (1) If the authority determines that the more informal procedures contained in sections 44 and 45 will not succeed in resolving a dispute among holders of water rights evidenced by a permit or upon the request of any person interested in such a dispute, the authority shall convene a hearing to arbitrate the dispute administratively.
- (2) The authority shall provide at least 21 days' notice of the proposed hearing to any holder of a water right involved in the dispute prior to convening the arbitral hearing, sending the notice by any form of mail requiring return receipt to the last address reported to the authority for any reason by the holder in question.

- (3) Upon the conclusion of the arbitral hearing, the authority shall issue an order determining whether there has been an unreasonable injury to any holder of a water right invited to participate in the arbitral hearing or to the public interest, and ordering as appropriate:
 - (a) steps to be taken by those parties best able to avoid or abate the injury at the least cost;
 - (b) compensation to the injured person by the person responsible; and
 - (c) modification or revocation of the permit of the offending person as necessary to prevent the unreasonable injury;
- (4) The only recourse for any party to the arbitral hearing who is aggrieved by the result shall be judicial review of the authority's decision;
- (5) If the authority fails within six (6) months to conclude the proceedings under this section or fails with reasonable diligence to effectuate or enforce the decision rendered through the hearing, any aggrieved party to the arbitral hearing may initiate a proceeding in any court of competent jurisdiction to resolve the dispute according to the provisions of this Code and other relevant laws.

Civil Enforcement

57. Inspections and Other Investigations

- (1) Any duly authorized employee of the authority may, pursuant to a valid administrative inspection warrant, enter at reasonable times upon any property, other than a building used as a dwelling place, in which that employee reasonably believes that water is withdrawn from the waters of the State, to inspect, investigate, study, or enforce this Code, or any order, term or condition of a permit, or regulation made pursuant to this Code.
- (2) An employee acting pursuant to subsection (1) of this section remains liable for any actual damage caused in the course of an inspection by unlawful conduct.
- (3) Duly authorized employees are authorized to undertake, with reasonable frequency, any investigations reasonably pertinent to any matter relevant to the administration or enforcement of this Code, including making tests, reviews, studies, monitoring, or sampling, or examining books, papers, and records, as the responsible employee present at the scene deems necessary.

58. Notice of Violation

- (1) Whenever a duly authorized employee of the authority has reason to believe that any person has violated any provision of this Code, or any order, permit term or condition, or regulation made pursuant to this Code, the employee shall issue and serve upon the person or persons so suspected a written notice of violation indicating the provision(s), order(s), permit term(s) or condition(s), or regulation(s) allegedly violated and the facts alleged to constitute the violation.
- (2) The notice of violation shall require the person or persons served to answer the charges set out in the notice at a hearing before the authority not less than 30 days after the date the notice was served unless the person or persons served waive in writing the minimum period before the hearing can be held.

59. Orders to Cease or Restore

- (1) The authority has full authority, after a hearing, to order any person to cease violations or to restore the condition of the waters of the State and related land resources to their condition

prior to the violation, or both, as is reasonably necessary to the enforcement of this Code and any order, permit term or condition, or regulation made pursuant to this Code.

- (2) If the authority determines that an emergency exists requiring immediate correction of the violation, the National Water Authority shall, without a hearing, issue an order with immediate effect with a hearing to follow within 10 days of the issuance of the order.

60. Injunctions

- (1) The authority has full authority to initiate and maintain suits in courts of competent jurisdiction to enjoin any unlawful withdrawal and use of the waters of the State, or the waste, loss, or pollution of the waters of the State, and as otherwise necessary to carry out its duties.
- (2) The authority need not prove irreparable damage from the violation or that there is no adequate remedy at law, nor need the authority prove either prior notice or negotiations about the violation before the filing of the complaint.
- (3) The initiation of a proceeding for an injunction or its issuance shall not relieve any person of any duty, sanction, or penalty otherwise applicable under this Code.

61. Civil Liability

Every person who shall violate any provision of this Code, or any order, permit term or condition, or regulation made pursuant to this Code, shall be liable in a proceeding before any court of competent jurisdiction for the expenses incurred by the authority to investigate and resolve the violation and to correct its effects and also to compensate any person injured by the violation when no other private remedy is provided in this Code.

62. Civil Penalties

- (1) A court may assess a civil penalty, not to exceed an amount stipulated by the Court for each violation, against any person found to have violated any provision of this Code or any order, permit term or condition, or regulation made pursuant to this Code.
- (2) The court shall assess a civil penalty at least equal the monetary benefits obtained by the violator if that sum is less than the maximum lawful penalty.
- (3) The court may assess a civil penalty that is higher than the monetary benefits obtained by the violator to reflect the nature of the violation, non-monetary benefits obtained by the violator, and the harm to others or to the public generally, so long as the maximum penalty is not exceeded.
- (4) Each day of a continuing violation counts as a separate violation for the purposes of this section.
- (5) Civil penalties shall be paid into the State Water Fund.

63. Civil Charges

- (1) The National Water Authority may waive any civil liability or civil penalty provided in this chapter against any person and payable to the authority or the State Water Fund if that person undertakes to pay the costs of restoring or repairing any damage caused by the violation and agrees to pay an additional civil charge assessed by order of the authority;
- (2) Each day of a continuing violation counts as a separate violation for purposes of this subsection.
- (3) Civil charges shall be paid into the State Water Fund.

64. Liens for Liquidated Monetary Claims

- (1) Any liquidated monetary claim arising from the enforcement of this Code and owing to the State, the authority, or the State Water Fund shall constitute a lien against the real property on which the withdrawal occurred or the withdrawn water was used, unless the owner of the land can demonstrate that the withdrawal and use was without the knowledge or neglect of the owner.
- (2) The holder of the lien created in this section may enforce the lien through summary proceedings for foreclosure of the lien in any court of competent jurisdiction.

65. Citizen Suits (optional)

- (1) Any citizen of the State may obtain an injunction or other appropriate remedy in an enforcement action brought against the person responsible for any violation of the provisions of this Code or of any order, permit term or condition, or regulation adopted pursuant to this Code if no other enforcement measures are pending based upon the same violation.
- (2) No citizen shall initiate an enforcement action under this section unless the citizen shall first have given written notice of intent to initiate the action to the authority and to the alleged violator at least 60 days before initiating the action.
- (3) The notice of intent to initiate an enforcement action shall indicate the nature of the alleged violation and of the remedy intended to be sought.
- (4) A citizen action is precluded if the violation is corrected or if the authority initiates any enforcement measures or undertakes to provide administrative resolution of any related dispute within the 60-day period specified in subsection (2) of this section.
- (5) A citizen who has given notice of the intent to initiate an enforcement action under subsection (2) of this section may intervene, as of right, in any civil legal proceeding brought by the authority.
- (6) In any enforcement action under this section, the court shall award the costs of litigation, including reasonable attorney and witness fees, to any prevailing party.
- (7) This section does not restrict any right of any person to seek relief under the statutory or common law apart from this Code for an injury caused by a violation of this Code or of any order, permit term or condition, or regulation adopted pursuant to this Code.

Criminal Enforcement

66. Crimes

- (1) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to this Code or pursuant to any order, permit term or condition, or regulation made under this Code, or who knowingly falsifies, tampers with, or renders inaccurate any monitoring device or method required to be maintained under this Code, guilty of an offence and liable
 - (i) to a fine—
 - A. not exceeding level eight; or
 - B. an amount equivalent to twice the amount of any profit or advantage unlawfully gained or acquired or any prejudice caused by the convicted person as a result of the offence; whichever is the greater; or
 - (ii) to imprisonment for a period not exceeding two years; or
 - (iii) to both such fine and such imprisonment.
- (2) Each day of a continuing violation shall constitute a separate crime.

- (3) Prosecution shall be the responsibility of the National Prosecuting Authority.
- (4) Fines collected under this section are to be paid into the State Water Fund.

67. Revocation of Permits

The National Water Authority is authorized to revoke any permit—

- (a) for any act that is criminal under this Code;
- (b) for wilful violation of this Code or of any term or condition of any permit or regulation issued under this Code; or
- (c) when necessary to prevent an unreasonable injury to a holder of another water right pursuant to dispute resolution under section 56.

68. Temporary Arrest Power (optional)

- (1) Any employee duly authorized by the National Water Authority may arrest any person when the employee finds probable cause to believe that the person has committed a crime as defined in this Code if the arrest is necessary to prevent the imminent escape of the person or the destruction or loss of evidence;
- (2) In the event of an arrest under this section, the arresting employee shall comply with the relevant law regarding the rights of criminal defendants;
- (3) The arresting employee shall turn such persons over to proper law enforcement authorities as promptly as is reasonable under the circumstances;
- (4) Immediately upon delivering any such person into the custody of law enforcement officers, the State Agency shall make a complaint in writing and upon oath before the proper court against the person so accused.

**PART VIII
ESTABLISHING A WATER RIGHT**

The Requirement of a Permit

69. Withdrawals Unlawful without a Permit

No person not specifically exempted by this Code shall make a withdrawal from the waters of the State without first having obtained a permit as provided in this Code and without fully complying with all provisions of this Code and all orders, permit terms or conditions, or regulations promulgated pursuant to this Code.

70. Primary Uses Exempted from the Permit Requirement

- (1) No permit shall be required for abstraction for primary uses from the waters from the State;
- (2) Exemption from the permit requirement under this section does not preclude the application of orders or regulations adopted pursuant to this Code necessary to protect minimum flows or levels or during water emergencies;
- (3) Persons not required to obtain a permit for a withdrawal may, at their option, apply for and obtain a permit under the same terms and conditions as for other permits obtained pursuant to this Code.

71. Existing Withdrawals

- (1) Existing withdrawals include actual withdrawals from the waters of the State on the effective date of this Code and withdrawals made on a regular basis within the 12 months immediately before the effective date of this Code.

- (2) Every person with an existing withdrawal must apply to the National Water Authority for a permit in a form prescribed by the National Water Authority within one year after the effective date of this Code.
- (3) A person qualifying to apply for a permit under this section may continue the existing withdrawal and its related use until the National Water Authority completes action on the application.
- (4) The National Water Authority shall approve a permit for any person proving a withdrawal from a particular water source existing on the effective date of this Code for such water as is reasonably necessary to accomplish the purpose for which the existing withdrawal was made.
- (5) If the aggregate of existing withdrawals exceeds the safe yield of the water source, the National Water Authority shall allocate the water properly available for withdrawal among existing withdrawals according to the standards applicable to the approval of an application for a new permit.
- (6) Failure to file an application as provided in this subsection shall be conclusive evidence of the abandonment of any right to withdraw water based on an existing withdrawal by the person failing to apply.

72. Withdrawals Begun after the Effective Date of the Code

Any person not qualifying as having an existing withdrawal from the waters of the State as defined in the Code must apply to the National Water Authority for a permit in a form prescribed by the National Water Authority before initiating any withdrawal of the waters of the State or undertaking any work intended to form part of the withdrawal of the waters of the State.

73. Temporary Permits

- (1) The National Water Authority may issue a temporary permit for a withdrawal of the waters of the State while an application is pending under this chapter or when an emergency arises that requires immediate action without the delays incident to the processing of an application for a permit.
- (2) A temporary permit shall specify the date on which it expires, which in any event cannot be more than six (6) months after the temporary permit is issued.
- (3) The National Water Authority may renew a temporary permit upon its expiration if action on the primary permit is not yet completed or if the emergency continues, but no series of temporary and renewed temporary permits can be issued for a single purpose for a total period of more than 24 months.
- (4) The National Water Authority shall issue temporary permits on such terms and conditions as are necessary to prevent any significant impact on any other permitted use of the water or any substantial change in the water source.
- (5) The notice and hearing requirements under this chapter do not apply to the issuance or renewal of a temporary permit.

74. Registration of Withdrawals Not Subject to Permits

- (1) The National Water Authority may, by regulation, require some or all persons whose withdrawal is exempt from allocation or from the permit requirement to register the withdrawal of the waters of the State periodically, including such information as the National Water Authority determines to be necessary to carry out the National Water Authority's responsibilities under this Code.

- (2) Persons who are not required to register their withdrawals may, at their option, register their withdrawals by providing the same information as is required under the regulations issued pursuant to subsection (1) of this section.

Permit Procedures

75. Contents of an Application for a Permit

- (1) An application for a permit to withdraw water pursuant to this Code shall contain the following information:
- (a) name and address of the applicant;
 - (b) amount of the proposed withdrawal of water, including estimates of the projected daily, monthly, seasonal, and annual mean and peak withdrawals;
 - (c) place and source of the proposed withdrawals;
 - (d) place and nature of the proposed use of water;
 - (e) place of the proposed return flow of withdrawn water;
 - (f) estimate of the projected overall consumptive use of water;
 - (g) anticipated effects, if any, of the withdrawal on existing or proposed uses dependent on the same water source, along with a list of the persons entitled to notice under Section seventy-six in so far as known to the applicant;
 - (h) impact of the proposed withdrawal on other water sources hydrologically interconnected with the water source from which the withdrawal is to be made;
 - (i) current operating capacity of any existing withdrawal system and the effect of the proposed withdrawals on the existing withdrawal system;
 - (j) any land acquisition, equipment, energy consumption, or the relocation or re-siting of any existing community, facility, right-of-way, or structure that will be required;
 - (k) total anticipated costs of any proposed construction;
 - (l) list of all interstate, State, or local approvals, permits, licenses, or other authorizations required for any part of the proposal;
 - (m) statement of whether and how the proposed withdrawal complies with all applicable plans and strategies for the use, management, and protection of the waters of the State and related land resources;
 - (n) planning status and estimated timetable for the completion of the proposed project;
 - (o) description of alternative means for satisfying the applicant's need for water if the requested permit is denied or modified;
 - (p) description of any plan for conservation the applicant proposes to follow; and
 - (q) any other information reasonably required by the National Water Authority by regulation.
- (2) In any dispute regarding any fact in issue between the National Water Authority and an applicant for a permit, the burden of proof shall be on the applicant.

76. Notice and Opportunity to Be Heard

- (1) Before deciding whether to approve or deny a permit, the National Water Authority shall, beginning within 14 days after the filing of an application for a permit, publish a notice of the permit application once each week for four consecutive weeks in a newspaper of general circulation in each water basin to be affected by the proposed withdrawal and in the State Register, and provide individual written notice to
- (a) every unit of state or local government with regulatory authority or other responsibility for the proposed withdrawal;

- (b) each owner of land contiguous to the location of the proposed withdrawal; and
 - (c) each person holding a permit under this Code or other relevant Acts of Parliament if such a permit holder is likely to be affected by the proposed withdrawal or use.
- (2) Individual written notice shall be by any form of mail with return receipt requested.
- (3) The required notice shall indicate the water source from which it is proposed to withdraw the water, the quantity and location of the proposed withdrawal, and the purposes for which it is proposed to withdraw the water.

77. Processing Applications in the Order Received

The National Water Authority shall process applications in the order in which they are received except

- (a) when to do so would prevent the prompt approval of routine applications;
- (b) when public health, safety, or welfare would be threatened by delay; or
- (c) when the Agency undertakes joint consideration of pending applications proposing to withdraw water from the same source of supply.

78. Contesting an Application

- (1) Any person who might be adversely affected by the granting of a proposed permit may, within 30 days of actual notice of the receipt of the application by the National Water Authority or, if no actual notice is required or has proven impossible, within 30 days of constructive notice by publication of the final notice required by Part VIII submit a statement to the National Water Authority briefly outlining the reasons for believing that an adverse effect is likely to result.
- (2) Any person submitting a statement contesting an application for a permit under subsection (1) of this section is to be provided with a copy of the permit application upon paying the costs of duplicating the application; a request for a copy of the application must be made within 10 business days of the filing of the statement contesting the application.
- (3) Any person submitting a statement contesting an application for a permit under subsection (1) must file any further comments on the application within 21 days of receipt of the copy of the application.
- (4) Any person submitting a statement is entitled to a hearing under section fifty-three upon requesting the hearing on non-frivolous grounds not later than the last day for the submission of the further comments under subsection (3).
- (5) No person who has not contested an application for a permit under this section shall be entitled to seek judicial review of the decision to grant the permit in question.

79. Public Right of Comment

Any person may submit written comments on any application within 45 days of the publication of the final notice required in Part VIII.

80. Obligation of the State Agency to Act

- (1) The National Water Authority shall rule upon all applications within six (6) months of the initial filing of the application, unless the National Water Authority shall, by order, extend time for not more than an additional six (6) months.
- (2) Failure of the National Water Authority to rule upon an application within the time applicable under this section shall be deemed to be an approval of the application, and the issuance of the permit on the basis of such terms and conditions as are inferable from the application.

- (3) An applicant may bring an action in any court of competent jurisdiction to declare the terms and conditions of the permit void as provided in subsection (2) of this section.

81. Notice of Action on Applications

- (1) If the National Water Authority determines that an application for a permit meets the requirements for a permit, the permit shall be issued, accompanied by a written statement of such terms and conditions as the Authority determines to be appropriate under this Code or regulations made under this Code.
- (2) The National Water Authority shall provide a written explanation of its grounds for including any particular term or condition in a permit whenever the person to whom a permit is issued requests such explanation in writing.
- (3) If the National Water Authority determines that an application for a permit fails to meet the standards for a permit, the application shall be denied and the application shall be returned to the applicant accompanied by a written statement of Authority's findings regarding the application and the reasons for its denial.
- (4) The National Water Authority shall provide individual written notice of its disposition of each application to any other person who participated in the application proceedings pursuant to this chapter, along with the grounds for any decision as communicated to the applicant.

82. Opportunity to Remedy Defects in an Application

- (1) The National Water Authority shall provide each applicant whose application has been denied a reasonable opportunity to remedy the defects in the application that caused the denial.
- (2) The National Water Authority shall give individual written notice of any resubmission to persons entitled to notice of the action on the earlier application and shall provide such persons a reasonable opportunity to comment on or contest the resubmitted application.
- (3) The National Water Authority shall establish by regulation the period of time allowed for resubmission of an application or for commenting on or contesting the resubmission.

The Basis of a Water Right

83. Standards for a Permit

- (1) The National Water Authority shall approve an application and issue a permit only upon determining that:
 - (a) the proposed use is reasonable;
 - (b) the proposed withdrawal, in combination with other relevant withdrawals, is sustainable and will not exceed the safe yield of the water source;
 - (c) the proposed withdrawal and use are consistent with any applicable comprehensive water allocation plan and drought management strategies;
 - (d) both the applicant's existing water withdrawals and use, if any, and the proposed withdrawal and use incorporate a reasonable plan for conservation; and
 - (e) the proposed withdrawal and use will be consistent with the provisions of this Code and any order, permit term or condition, and regulation made pursuant to this Code or any other statute pertaining to the use of water.
- (2) In any judicial review of the Agency's determination under subsection (1) of this section, the burden of proof shall be on the person challenging the Agency's determination.

84. Determining Whether a Use Is Reasonable

In determining whether a use is reasonable, the National Water Authority shall consider the

- (1) number of persons using a water source and the object, extent, and necessity of the proposed withdrawal and use and of other existing or planned withdrawals and uses of water;
- (2) supply potential of the water source in question, considering quantity, quality, and reliability, including the safe yields of all hydrologically interconnected water sources;
- (3) economic and social importance of the proposed water use, and other existing or planned water uses sharing the water source;
- (4) probable severity and duration of any injury caused or expected to be caused to other lawful consumptive and non-consumptive uses of water by the proposed withdrawal and use under foreseeable conditions;
- (5) probable effects of the proposed withdrawal and use on the public interest in the waters of the State, including, but not limited to
 - (a) general environmental, ecological, and aesthetic effects;
 - (b) climate change
 - (c) sustainable development;
 - (d) domestic and municipal uses;
 - (e) recharge areas for underground water;
 - (f) waste assimilation capacity;
 - (g) other aspects of water quality; and
 - (h) wetlands and flood plains;
- (6) whether the proposed use is planned in a fashion that will avoid or minimize the waste of water (g) any impacts on Interbasin water uses;
- (7) the scheduled date the proposed withdrawal and use of water is to begin and whether the projected time between the issuing of the permit and the expected initiation of the withdrawal will unreasonably preclude other possible uses of the water; and
- (8) any other relevant factors;

85. Aggregation of Multiple Withdrawals

In calculating the total amount of an existing or proposed withdrawal pursuant to a permit issued under this Code, or as qualifying for an exemption from the permit requirement of this Code, the National Water Authority shall include all separate withdrawals by a single person for a single use or for related uses.

86. Preferences among Water Rights

- (1) When the waters available from a particular water source are insufficient to satisfy all lawful demands upon that water source, water is to be allocated by permits up to the safe yield or other applicable limit of allocation of the resource according to the following preferences:
 - (a) direct human consumption or sanitation in so far as necessary for human survival and health,
 - (b) uses necessary for the survival or health of livestock and to preserve crops or physical plant and equipment from physical damage or loss in so far as it is reasonable to continue such activities in relation to particular water sources, and
 - (c) other uses in such a manner as to maximize employment and economic benefits within the overall goal of sustainable development as set forth in the comprehensive water plan.

- (2) In processing applications for withdrawals from water sources within the scope of subsection (1) of this section, the National Water Authority may determine whether applications are competing by aggregating the applications by periods of time, not to exceed one year, the periods to be set by regulation.
- (3) Within each preference category, uses are to be preferred that maximize the reasonable use of water.
- (4) Applications to renew a permit issued under this Code shall be evaluated by the same criteria applicable to an original application, except that renewals shall be favoured over competing applications for new withdrawals if the public interest is served equally by the competing water uses after considering the prior investment pursuant to a valid water right in related facilities as a factor in determining the public interest.

87. Prior Investment in Proposed Water Withdrawal or Use Facilities

- (1) The fact that an applicant has acquired, through the power of eminent domain or otherwise, any land for the specific purpose of serving as the site for proposed facilities to withdraw or use water or has undertaken construction on such facilities, prior to the obtaining of a permit from the National Water Authority, is not admissible in any administrative or judicial proceeding relating to the application or permit and shall have no bearing on decisions relating to the application or permit.
- (2) Prior acquisition of land or prior commencement of construction is a voluntary risk assumed by the applicant and no compensation is due for any loss in the value of the land or of the investment in facilities should a permit be denied or issued subject to terms and conditions less favourable than those sought in the application.

88. Special Standard for Interbasin Transfers

- (1) In determining whether to issue a permit for an Interbasin transfer of water, the National Water Authority shall give particular weight to any foreseeable adverse impacts that would impair the sustainable development of the water basin of origin.
- (2) In addition to the factors set forth in sections eighty-three to section eighty-seven of this Code, in determining whether an Interbasin transfer is reasonable, the National Water Authority shall consider the
 - (a) supply of water available to users in the basin of origin and available to the applicant within the basin in which the water is proposed to be used,
 - (b) overall water demand in this basin of origin and in the basin in which the water is proposed to be used, and
 - (c) probable impact of the proposed transportation and use of water out of the basin of origin on existing or foreseeable shortages in the basin of origin and in the basin in which the water is proposed to be used.
- (3) When authorizing an Interbasin transfer notwithstanding probable impairment to the existing or future uses of water in the basin of origin, the National Water Authority shall assess a compensation fee to be paid into the Interbasin Compensation Fund by the person granted a permit for the Interbasin transfer in so far as is necessary to compensate the basin of origin for generalized losses not attributable to injuries to particular holders of water rights in the basin of origin.

Coordination of Water Allocation and Water Quality Regulation

89. Protecting and Preserving Water Quality Standards

- (1) The National Water Authority shall allocate or approve transfers of the waters of the State in such a manner as to protect and preserve the quality of those waters.
- (2) The National Water Authority shall not allocate water to a water right for any use that appears likely to result in a violation of the water quality standards designated by the State without consulting with the Environmental Management Authority.
- (3) If Environmental Management Authority objects to a proposed allocation of water to a water right, they may appeal the National Water Authority's decision in accordance with Part VII.

90. Data to Be Provided by the Environmental Management Authority to the National Water Authority

The National Water Authority shall include in the nationwide data system the following data, to be provided by the Environmental Management Authority, using that data, when relevant, in considering the allocation of water under this Part:

- (a) the ambient water quality standards and effluent discharge standards for all waters of the State;
- (b) the number and effluent discharge data for all point sources for which Environmental Management Authority has issued any permit;
- (c) all information and data on any nonpoint source of return flow as may be available to the Environmental Management Authority; and
- (d) changes in ambient water quality standards or effluent discharge standards for any segment of any water source in the State

91. Evaluating Allocations for Their Potential Effect on Water Quality

- (1) The National Water Authority shall establish and implement standards and procedures that include coordination with the Environmental Management Authority for the issuance of permits for water rights:
 - (a) when a withdrawal may affect the volume of flow for waters receiving effluent discharges;
 - (b) when allocating water to a use that will result in a return flow, whether as a point source or a nonpoint source, that appears likely to contain any category of pollutant regulated by legislation or regulations, or in the Code and the regulations adopted by the Environmental Management Authority;
 - (c) when the withdrawal of underground water will create a zone of depression threatening intrusion by saline waters, hazardous waste, or other pollutants; or
 - (d) when artificial recharge of underground water appears likely to create a risk of the introduction into the water source of any category of pollutant regulated by legislation or regulations, or in the Environmental Management Act [20:27] and the regulations adopted by the Environmental Management Authority.
- (2) To determine the impact of an allocation of water to a consumptive use on water quality, the National Water Authority shall consider the following:
 - (i) nature, size, and safe yield of the water source;
 - (ii) biological and chemical effects of any degradation of the quality of the water source resulting from the proposed allocation, by itself or in combination with other existing, permitted, or planned uses, and adversely affecting the water's availability or fitness for other uses;
 - (iii) injury to public health, safety, or welfare, or to environmental quality and integrity that would result if any expected degradation of water quality were not prevented or abated;

- (iv) necessity for the withdrawal and the costs to the applicant for a permit or approval of meeting the needs through other means;
 - (v) extent of adverse quality effects on other uses and the extent of remedial costs necessary to mitigate those effects;
 - (vi) effect on the waste assimilative capacity of a water source as determined according to subsection (3) of this section; and
 - (vii) any other impact on the public interest and sustainable development.
- (3) In order to ensure that the State's water quality standards are achieved and maintained, the National Water Authority shall, in determining whether a proposed or existing water withdrawal or use is reasonable, determine the effect of an allocation of water on the capacity of the water source to assimilate effluent from point and nonpoint sources, balancing the cost of additional pollution control on the pollutant source against the cost of losses imposed on other actual or potential users of water as a result of the impact of the proposed effect on the water source's waste assimilation capacity

92. Combining Permits for Water Allocation and Water Quality

- (1) Whenever consistent with the policies and requirements of this Code, the National Water Authority and the Environmental Management Authority shall issue a combined permit expressing terms and conditions governing both water allocation and water quality.
- (2) If the National Water Authority determines for any reason that a combined permit is not possible under subsection (1) of this section, the National Water Authority shall
 - (a) publish, in a newspaper of general circulation within the county in which the withdrawal is to occur, a notice of its intention to issue a permit under this Code at the end of 30 days from the publication of the notice;
 - (b) promptly send written notice to the Environmental Management Authority; and
 - (c) issue the permit as planned unless precluded by the action of a court or other body authorized by law to review the decision in question.

93. Preservation of Private Rights of Action

This Code does not alter or abridge any right of action existing in law or equity, whether civil or criminal, nor does it prevent any person from exercising rights to suppress nuisances or otherwise to abate pollution.

**PART IX
SCOPE OF THE WATER RIGHT**

Extent of the Right

94. Permit Terms and Conditions

If the National Water Authority approves an application for a new, renewed, or modified permit, the National Water Authority shall modify an existing permit or issue a new one, indicating in the permit the following terms and conditions:

- (a) location of the withdrawal;
- (b) authorized amount of the withdrawal and the level of consumptive use, if any, and required conservation measures, if any;
- (c) dates or seasons during which water is to be withdrawn, including any seasonal or shorter variations in the authorized withdrawals or level of consumptive use;

- (d) uses for which water is authorized to be withdrawn;
- (e) the amount of return flow required, if any, and the required place of discharge, if any;
- (f) requirements for metering, surveillance, and reporting as the National Water Authority determines to be necessary to ensure compliance with other conditions, limitations, or restrictions of the permit, including consent to inspections or investigations as provided in section fifty-seven of this Code;
- (g) time within which all necessary construction authorized by the permit must be completed or within which the withdrawal or use of water must begin to be made, with the delay not to exceed one-half of the duration of the permit, subject to extension by order of the National Water Authority for cause shown;
- (h) any extraordinary withdrawals of the waters of the State necessary for the construction of any facilities necessary to withdraw or use the water;
- (i) any obligation to restore the lands or waters of the State to their condition prior to the issuance of the permit upon its expiration;
- (j) date on which the permit expires;
- (k) payment by a holder of a water right involving an Interbasin transfer of a withdrawal fee to be paid into the Interbasin Compensation Fund; and
- (l) any other conditions, limitations, and restrictions the National Water Authority determines to be necessary to protect the public interest, the environment and ecosystems, the public health, safety, and welfare, and to ensure the conservation, sustainable development, proper management, and aesthetic enhancement of the waters of the State.

95. Duration of Permits

- (1) The National Water Authority shall issue permits for a period of time representing the economic life of any necessary investments not to exceed 20 years, except that permits may be issued for a period reasonable for the retirement of debt associated with the construction of related facilities by a governmental or other public body or public service corporation not to exceed 50 years.
- (2) Not more than six (6) months prior to the expiration of any permit, a water right holder may apply for a renewal of the permit; such an application is entitled to the renewal preference provided in section eighty-six only if received by the National Water Authority before the permit expires.

96. Forfeiture of Permits

- (1) If a water right holder wastes the water or fails to withdraw or use water as authorized by a permit for a period of consecutive five (5) years (without counting years when water was physically and legally unavailable), the holder forfeits the right, and the permit becomes void.
- (2) A forfeiture also occurs whenever the National Water Authority determines that a person to whom a permit has been issued will be unable under any foreseeable circumstances to comply with this Code or with relevant orders, permit terms or conditions, or regulations made pursuant to this Code or any other laws pertaining to the use of water.
- (3) A forfeiture can pertain to the whole or any part of a water right, depending on the extent to which the water is wasted or not withdrawn or used, or the extent to which the holder of the right is unable to comply with the terms or conditions of the permit.

Modification of Water Rights

97. Approval Required for Modification of Permits

- (1) A person who holds an unexpired permit may apply for a modification of any term or condition of the permit, including the name of the person holding the permit, by submitting an application for modification on such forms as are required by the National Water Authority.
- (2) A proposed modification, including the assignment of a permit to a person other than the current water right holder, becomes effective only upon approval by the National Water Authority.

98. Approval of Modifications

- (1) Except as provided in section ninety-nine, the National Water Authority shall evaluate an application for the approval of a modification according to the procedures set forth in Part VIII and subject to the standards of section eighty-three.
- (2) The National Water Authority may require a new plan for conservation as a condition of approval of a modification.
- (3) If the National Water Authority approves a modification even though some adversely affected water right holders have not consented to the modification, the National Water Authority shall condition approval of the modification upon the payment of adequate compensation to such adversely affected water right holders.
- (4) Any person who is aggrieved by the National Water Authority's approval or denial of a modification, whether the National Water Authority has ordered compensation to that person or not, may seek judicial review of the order under Part VII of this Code but cannot otherwise litigate the validity of, or seek damages for, the modification.

99. Approval of Non-Injurious Modifications

- (1) In the event of a simple assignment of a permit, whether voluntary or involuntary, to a person other than the current water right holder that does not alter the place, time, or manner of use, the assignee of the permit must file a written notice of the assignment with the National Water Authority within 30 days of the assignment.
- (2) Failure to register a simple assignment under subsection (1) of this section within the prescribed time renders the assigned permit void.
- (3) An assignee who complies with subsection (1) of this section shall receive a reissue of the permit in the new owner's name for the period of the remaining duration of the original permit.
- (4) The National Water Authority may authorize approval of certain classes of modification without specific review by the National Water Authority according to regulations defining the conditions under which a modification is deemed not to have a significant impact on the water source, other water right holders, and the public interest.

100. No Rights Acquired through Adverse Use

- (1) The methods set forth in this Code are the only methods whereby a water right may be acquired under the law of this State.
- (2) No water right or other right to use water can be acquired by adverse use, adverse possession, estoppel, or prescription.

Restrictions During Water Shortages or Water Emergencies

101. Authority to Restrict Permit

- (1) The National Water Authority may restrict any term or condition of any permit issued under this Code for the duration of a water shortage or a water emergency declared by the National Water Authority.
- (2) The National Water Authority is to impose restrictions according to previously developed drought management strategies unless the National Water Authority determines that the relevant drought management strategies are inappropriate to the actual situation.
- (3) In implementing restrictions under this section, the National Water Authority shall comply with the preferences provided in section eighty-six.

102. Declaration of a Water Shortage

- (1) The National Water Authority shall declare a water shortage whenever it finds the conditions defined in section two to exist.
- (2) Before restricting the exercise of any right conferred by a permit under this Code because of a water shortage, the National Water Authority shall serve notice of the proposed action on and provide an opportunity for a contested hearing to any person affected by the proposed restriction.
- (3) In any hearing or litigation relating to this section, the burden of proof shall be on the party requesting the hearing or initiating the litigation.

103. Declaration of a Water Emergency

- (1) The National Water Authority shall declare a water emergency whenever it finds the conditions defined in section two to exist.
- (2) In addition, its powers under a declaration of water shortage, the National Water Authority may, upon declaring a water emergency and without prior hearing, order a person who holds a permit under this Code immediately to cease or otherwise change the withdrawal or use of water as necessary to alleviate the emergency.
- (3) An emergency order issued under this section shall specify the precise date and time on which the withdrawal or use must stop or change and the date, if any has been determined at the time the order is issued, on which the withdrawal or use might be resumed.
- (4) Any restriction under this section shall not take effect against any person affected by the restriction until the National Water Authority serves the emergency order on that person.
- (5) Any person affected by a restriction under this section may obtain a hearing to challenge the restriction to begin not more than 10 days after the National Water Authority receives the request for a hearing, to be concluded as soon as reasonably possible after the hearing begins.
- (6) In any hearing or litigation relating to this section, the burden of proof shall be on the party requesting the hearing.
- (7) An emergency order remains in effect pending the result of any hearing or litigation relating to this section.

104. Delineation of the Area Affected

The National Water Authority, in declaring a water shortage or a water emergency, shall determine and clearly delineate the area of the State and the water sources included within the shortage or emergency.

105. Restriction of Withdrawals for Which No Allocation or Permit Is Required

- (1) During a water shortage or water emergency, the National Water Authority is empowered to restrict withdrawals for which no permit is required, or to allocate water to and among such uses, to alleviate the water shortage or water emergency.
- (2) In exercising its power under this section, the National Water Authority shall proceed on the same bases and according to the same procedures as apply to restrictions on uses for which a permit is required.

106. Conservation Credits

- (1) In so far as practical, the National Water Authority, in ordering restrictions on the withdrawal or use of water during a water shortage or water emergency, shall not order a person to do more if that person has successfully implemented conservation measures pursuant to the plan of conservation made a term or condition of the permit under which the person exercises a water right, until other permit holders shall have achieved comparable restrictions in the exercise of their water rights.
- (2) When a person holding a water right voluntarily undertakes conservation measures during a period of water shortage or water emergency beyond those required by this Code, including the terms or conditions of the person's permit, that result in significant quantifiable reductions in the water that person had been using before the beginning of the water shortage or water emergency, that person is entitled to a credit for such reductions in any scheme of restrictions imposed by the National Water Authority as a response to the water shortage or water emergency.
- (3) When a written agreement between persons holding water rights under this Code for those persons to undertake joint conservation measures in the event of an anticipated water shortfall is filed with the National Water Authority before the declaration of a water shortage or water emergency and the agreement does not unreasonably impair the rights of other persons who hold water rights, or the public interest, or sustainable development, the Agency shall
 - (a) register the agreement and include it in any relevant drought management strategies, if the agreement is consistent with the policies of this Code; and
 - (b) credit any water actually conserved under the agreement to the obligations of the parties to the agreement to restrict their water withdrawals or consumptive uses during any water shortage or water emergency.
- (4) When a written agreement between persons holding water rights under this Code for those persons to undertake joint conservation measures is filed with the National Water Authority during the declaration of a water shortage or water emergency and the agreement does not unreasonably impair the rights of other persons who hold water rights, or the public interest, or sustainable development, the Agency shall
 - (a) register the agreement and authorize the parties to the agreement to implement those measures in lieu of restrictions imposed (or to be imposed) by the Agency; and
 - (b) credit any water actually conserved under the agreement to the obligations of the parties to the agreement to restrict their water withdrawals or consumptive uses during any water shortage or water emergency.
- (5) Conservation credits and registered agreements on joint conservation measures shall be included in the statewide data system.

107. Amendment or Termination of a Declaration of Water Shortage or Water Emergency

The National Water Authority is authorized to amend or terminate a declaration of water shortage or of water emergency upon a finding that conditions justifying the declaration no longer exist as to part or all the area included in the prior order.

PART X WATER CONSERVATION AND SUPPLY AUGMENTATION

Water Conservation

108. Support for Voluntary Water Conservation Measures

The National Water Authority shall encourage voluntary actions to conserve water by

- (a) providing technical assistance to any person holding a water right to aid in the development or implementation of conservation measures beyond those required by this Code, including as a term or condition of a permit, in so far as the resources available to the National Water Authority enable it to do so; and
- (b) creating a program of information, in schools and otherwise, to educate the public about the State's water policies in general and any steps necessary to respond to a water shortage or water emergency in particular.

109. Preferences to Water Developed through Conservation Measures

- (1) When a person holding a water right voluntarily undertakes conservation measures beyond those required by this Code, including beyond the terms and conditions of the person's permit, that result in significant quantifiable reductions in the water that person has been using other than during a period of water shortage or water emergency, that person shall receive approval of a modification of the permit to enable the person to use the water in other locations or for other purposes in preference to others who might apply for a permit to use the water conserved.
- (2) The preference provided in this section does not change the burden on an applicant for approval of a modification of a permit to demonstrate that the modification will not unreasonably injure other holders of water rights, other persons generally, or the public interest and the sustainable development of the waters of the State.
- (3) The preference provided in this section does not apply to water developed from uses that originally involved the waste of water or are subject to forfeiture.

Atmospheric Water Management

110. State Authority over Atmospheric Water Management

- (1) All moisture suspended in the atmosphere above this State is property of the State in trust for the people of the State and is dedicated to their use as provided by law.
- (2) The State has the right to increase or authorize the increase of precipitation by artificial means for use in the State.

111. The Obligations of Persons Undertaking Atmospheric Water Management in this State

All persons engaged in atmospheric water management in this State shall take proper safeguards, record accurate information concerning such activities, and report that information as required by the State's weather modification control law.

112. Governmental Immunity

Nothing in this Code shall be construed as imposing any liability or responsibility on the State, the National Water Authority, or any other governmental agency for any injury caused by persons issued permits under the State's weather control law or exempted from a permit by that law or regulations adopted pursuant to that law.

113. Private Liability

- (1) An operation or research and development activity conducted under a permit issued under the authority of the State's weather control law or exempted from a permit under that law or regulations adopted pursuant to that law is not an ultrahazardous or abnormally dangerous activity.
- (2) The mere act of dissemination of weather modification agents into the atmosphere or clouds within the atmosphere, including fog, by a person holding a permit or a person exempted from the permit requirements of the State's weather control law acting within the scope of the permit or exemption shall not in itself give rise to a cause of action.
- (3) Except as provided in subsections (1) and (2) of this section and section one hundred and fourteen, nothing in this Code shall prevent any person adversely affected by a weather modification operation or research and development activity from recovering damages resulting from intentional harmful actions or negligent conduct by a person conducting a weather modification operation or research and development activity.
- (4) Other than in a legal action charging a failure to obtain a permit, the fact that a person holds a permit and has complied with the provisions of the State's weather modification control law and regulations made pursuant to that law is not admissible as a defense in any legal action that might be brought against such person for actions taken under the permit or pursuant to such law or regulation.

114. Water Rights Derived from Atmospheric Water Management

- (1) Water derived from atmospheric water management becomes part of the State's basic water supply, subject to allocation and regulation in accordance with the provisions of this Code.
- (2) When a person successfully undertakes atmospheric water management, the National Water Authority shall grant that person a permit authorizing that person to make a reasonable use.
- (3) The applicant for a water allocation right based upon operation of an atmospheric water management project shall bear the burden of quantification of the amount and timing of such augmented water supply.
- (4) Quantification of a right based upon atmospheric water management shall be based upon consideration of such of the following factors as may be appropriate:
 - (a) physical and statistical analysis of historic streamflow and augmented streamflow,
 - (b) analysis of precipitation data in the project area and in control areas,
 - (c) computer simulations,
 - (d) radar measurements,
 - (e) chain of events research, and
 - (f) such other technology or technique that currently exists or may be available in the future, which comports with sound engineering and physical principles.

**PART XI
SAFETY OF DAMS**

115. Interpretation in Part XI.

(1) In this Part—

“advisory panel” means an advisory panel appointed in terms of subsection (3) of section one hundred and seventeen;

“approved civil engineer” means a civil engineer who has been declared to be an approved civil engineer in terms of subsection (5) of section one hundred and seventeen;

“approved civil engineering technician” means a civil engineering technician who has been declared to be an approved civil engineering technician in terms of subsection (4) of section one hundred and seventeen;

“appurtenant works” means any works which contribute directly or indirectly to the functioning, operation or safety of a small dam or large dam and includes—

- (a) outlet works and penstocks, pipelines, tunnels and other water conduits, whether running through the structure of the small dam or large dam or the abutments thereof; and
- (b) gated and ungated spillways and erosion control and energy dissipating works, whether in the structure of the small dam or large dam or separate therefrom; and
- (c) anchoring, buttressing, drainage and other stabilising works in original earth or rock slopes, whether downstream or upstream of the small dam or large dam; and
- (d) devices or works for measuring flow, movement, pore water pressure, seepage, strain, temperature or uplift pressure, whether in the structure of the small dam or large dam or separate therefrom; and
- (e) such other works as may be declared in terms of subsection (2) to be appurtenant works;

“board of consultants” means a board of consultants appointed in terms of subsection (1) of section one hundred and twenty-five;

“dam works” means the alteration, construction, reconstruction or removal of a small dam or large dam;

“design flood”, in relation to a small dam or large dam, means the estimated maximum flow of water resulting from floods or other causes, which flow—

- (a) is required to pass through the spillway or other discharge facilities; and
- (b) is approved or fixed in relation to the small dam or large dam concerned in terms of subsection (3);

“dry freeboard” means the vertical distance between the water level attained when the design flood is being passed and the level of the non-overflow crest of the wall of the small dam or large dam concerned;

“full supply level” means that water level which pertains immediately prior to the release of excess flood water through the spillway;

“high flood level” means the maximum level of water which can safely be contained by a small dam or large dam without encroaching on the dry freeboard thereof;

“large dam” means a structure, whether constructed or proposed to be constructed, which, together with its abutments, appurtenant works and foundations, is capable of diverting or storing water and which—

- (a) has a vertical height of fifteen metres or more measured from the non-overflow crest of the wall of the structure to the lowest point on the downstream face of the wall; or
- (b) is capable of storing one million or more cubic metres of water at full supply level; or
- (c) has foundations which, in the opinion of the Secretary as notified to the owner of the structure, may or causes special or unexpected difficulties; or
- (d) in the opinion of the Secretary as notified to the owner of such structure, is a small dam of unusual design; or
- (e) is declared in terms of subsection (2) to be a large dam;

“owner”, in relation to a small dam or large dam—

- (a) means the person entitled to divert or store water by means of the small dam or large dam; and
- (b) includes the legal representative of any person referred to in paragraph (a) who has died, become insolvent, is a minor or of unsound mind or is otherwise under disability and, in the case of a company, the liquidator of the company;

“registration certificate” means a registration certificate issued in terms of subsection (2) of section one hundred, subsection (2) of section one hundred and one or subsection (2) of section one hundred and nineteen;

“small dam” means a structure, whether constructed or proposed to be constructed, which, together with its abutments, appurtenant works and foundations, is capable of diverting or storing water and which—

- (a) has a vertical height of more than eight metres but less than fifteen metres measured from the non-overflow crest of the wall of such structure to the lowest point on the downstream face of such wall; or
 - (b) is capable of storing more than five hundred thousand but less than one million cubic metres of water at full supply level; or
 - (c) is declared in terms of subsection (2) to be a small dam.
- (2) The Minister, on the recommendation of the National Water Authority and in consultation with the catchment council concerned, may, by notice in writing given to the owner of the small dam or large dam concerned—
- (a) declare any works, other than works referred to in paragraphs (a) to (d) of the definition of “appurtenant works” in subsection (1), to be appurtenant works;
 - (b) declare any structure, other than a structure referred to in paragraphs (a) to (c) of the definition of “small dam” in subsection (1) or in paragraphs (a) to (e) of the definition of “large dam” in that subsection, which, together with its abutments, appurtenant works and foundations, is capable of diverting or storing water to be a small dam or large dam, as the case may be; for the purposes of this Part.
- (3) The Secretary, in consultation with the catchment council concerned, may approve or fix, in relation to a small dam or large dam, a flow of water as the design flood thereof.

116. Minister may grant exemptions.

- (1) The Minister may, in consultation with the catchment council and the National Water Authority, may, by notice in writing and subject to such conditions as he may impose, exempt

any person from compliance with all or any of the provisions of this Part in respect of any large dam, small dam, dam works or appurtenant works proposed to be constructed in respect of any public stream which forms any part of the international boundary of Zimbabwe.

- (2) The Minister may at any time, on the recommendation of the National Water Authority in consultation with the catchment council, withdraw or amend any exemption granted in terms of subsection (1).

117. Approved civil engineers and approved civil engineering technicians.

- (1) Any person who wishes to become an approved civil engineer or an approved civil engineering technician shall apply in the prescribed manner to the Secretary to be declared an approved civil engineer or approved civil engineering technician, as the case may be, in terms of subsection (4).
- (2) On receipt of an application in terms of subsection (1), the Secretary shall refer the application to an advisory panel for consideration and recommendation: Provided that the Secretary may, if they consider that the application does not provide sufficient information concerning the applicant, require the applicant to furnish the Secretary with such additional information concerning the applicant as the Secretary may specify before so referring the application.
- (3) An advisory panel shall—
 - (a) be appointed by the Secretary; and
 - (b) consist of two or more civil engineers who have wide experience of the design and construction of dams and large dams or such other experience as the Secretary may approve; and
 - (c) consider and make recommendations on applications or matters referred to it in terms of subsection (2) or (6), as the case may be.
- (4) Members of any advisory panel shall be paid from moneys appropriated for the purpose by Act of Parliament such remuneration or allowances as the Minister, after consultation with the Minister responsible for finance, may fix.
- (5) On receipt of a recommendation from an advisory panel on an application in terms of subsection (1), the Secretary shall—
 - (a) if they consider that the applicant possesses the necessary qualifications for and experience of dam works and is a fit and proper person, by notice in the Gazette, declare the applicant to be an approved civil engineer or an approved civil engineering technician, as the case may be, subject to such conditions as he thinks fit to impose; or
 - (b) refuse the application: Provided that the Secretary shall, before refusing an application, afford the applicant an opportunity to satisfy the Secretary that they possess the necessary qualifications for or experience of dam works or is a fit and proper person, as the case may be.
- (6) The Secretary may, if they thinks that—
 - (a) the declaration of an approved civil engineer or approved civil engineering technician should be withdrawn; or
 - (b) the conditions subject to which the declaration of an approved civil engineer or approved civil engineering technician was made should be amended; refer the matter to an advisory panel for consideration and recommendation.
- (7) On receipt of a recommendation from an advisory panel on a matter referred to it in terms of subsection (6), the Secretary shall—

- (a) if they consider that the declaration of the approved civil engineer or approved civil engineering technician concerned should be withdrawn or that the conditions subject to which the declaration was made should be amended, by notice in the Gazette, withdraw the declaration or amend the conditions: Provided that, if the withdrawal or amendment will or is likely to prejudice the approved civil engineer or approved civil engineering technician, the Secretary shall, before withdrawing the declaration or amending such conditions, afford the approved civil engineer or approved civil engineering technician an opportunity to satisfy the Secretary that the declaration should not be withdrawn or that the conditions should not be amended; or
- (b) take no action in the matter.

118. When dam works in respect of small dams may be commenced.

- (1) Subject to Part XI, no person shall commence any dam works in respect of a small dam other than action referred to in section one hundred and twenty-eight or one hundred and twenty-nine, until the expiry of a period of thirty days after—
 - (a) an approved civil engineer or approved civil engineering technician has—
 - (i) prepared a design, together with plans and specifications, of the proposed dam works; and
 - (ii) certified the adequacy and safety of the proposed dam works and, in the case of modifications to an existing small dam, that the adequacy and safety of the small dam will not be prejudiced; and
 - (b) the owner of the small dam has submitted to the Secretary in the prescribed manner, together with such fee as may be prescribed, such details of the design, plans and specifications prepared in terms of paragraph (a) as may be prescribed, together with the certificate of adequacy and safety referred to in subparagraph (ii) of that paragraph.
- (2) The Secretary may require the owner of the small dam concerned—
 - (a) to provide the additional information; and
 - (b) to modify such design, plans and specifications in such manner; and
 - (c) to provide such additional certificates of adequacy and safety; as, and within such period as, the Secretary may specify.
- (3) A person who—
 - (a) commences dam works in contravention of subsection (1); or
 - (b) fails without reasonable excuse to comply with a requirement made in terms of subsection (2); or
 - (c) being the owner of the small dam concerned, fails to ensure that the dam works in respect of the dam are completed in accordance with the details submitted in terms of subsection (1) and to the satisfaction of an approved civil engineer or approved civil engineering technician; shall be guilty of an offence.
- (4) If during the execution of any dam works the owner of the small dam concerned wishes to modify the details submitted in terms of subsection (1), subsections (1), (2) and (3) shall apply, mutatis mutandis, in respect of such modification.

119. Duties of owners on completion of dam works in respect of small dams and registration.

- (1) The owner of a small dam shall, within a period of—
 - (a) thirty days from the completion of any dam works in respect of the small dam, notify the Secretary and the catchment council in writing of the completion; and

- (b) one hundred and twenty days from the completion of any dam works in respect of the small dam or such longer period as the Secretary may allow, submit to the Secretary and the National Water Authority—
 - (i) a report in the prescribed form; and
 - (ii) such plans certified as true and correct by the approved civil engineer or approved civil engineering technician concerned, as the case may be, of the completed dam works as may be prescribed; and
 - (iii) a completion certificate in the prescribed form of the adequacy, safety and completion of the dam works, signed by the approved civil engineer or approved civil engineering technician concerned, as the case may be; and
 - (iv) in the case of dam works other than the construction of a small dam, the registration certificate, if any, issued in respect of the small dam; and
 - (v) when requested by the Secretary or the National Water Authority to do so, such further information as the Secretary or the National Water Authority may specify.
- (2) On receipt of the report, plans and completion certificate and any registration certificate or further information submitted to him in terms of subsection (1), the Secretary shall, in consultation with the National Water Authority—
 - (a) in the case of the construction of a small dam, register the small dam and issue to the owner a registration certificate in the prescribed form; or
 - (b) in the case of dam works other than the construction or removal of a small dam, amend the registration of the small dam;
 - (c) in the case of the removal of a small dam, cancel both the registration of the small dam and the registration certificate concerned.
- (3) The owner of a small dam who contravenes subsection (1) shall be guilty of an offence and liable to a fine not exceeding level five or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

120. Reporting of small dams in certain areas.

- (1) If the Secretary, on the recommendation of the National Water Authority and in consultation with the catchment council, considers it necessary or desirable to do so, they may, by notice in the Gazette and in a newspaper circulating in the area concerned, require the owners of existing small dams within the area specified in the notice to notify them in writing, within such period as may be specified in the notice, of such particulars as they may specify in the notice in respect of the small dams, whether or not section one hundred and nineteen has been complied with in respect of the small dams.
- (2) On receipt of the details submitted to him in terms of subsection (1), the Secretary shall, in the case of a small dam in respect of which no registration certificate has been issued, register the small dam and issue to the owner a registration certificate in the prescribed form: Provided that the Secretary may, in registering the small dam, require the owner to comply within such period as the Secretary may specify and subject to such conditions as the Secretary may consider necessary for the protection of persons and property.
- (3) A person who fails to comply with a requirement made in terms of subsection (1) or the proviso to subsection (2) shall be guilty of an offence and liable to a fine not exceeding level five or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

121. When dam works in respect of large dams may be commenced.

- (1) Subject to Part XI, no person shall commence any dam works in respect of a large dam, other than action referred to in section one hundred and twenty-eight or one hundred and twenty-nine—
- (a) until—
- (i) an approved civil engineer, assisted by such qualified engineers, geologists and other specialists as the Secretary in consultation with the National Water Authority may require, has—
 - A. prepared a design, together with plans and specifications, of the proposed dam works; and
 - B. certified the adequacy and safety of the proposed dam works and, in the case of modifications to an existing small dam or large dam, that the adequacy and safety of the small dam or large dam will not be prejudiced; and
 - (ii) the owner of the large dam has submitted to the Secretary in the prescribed manner, together with such fee as may be prescribed, such details of the design, plans and specifications prepared in terms of subparagraph (i) as may be prescribed, together with the certificate of adequacy and safety referred to in that subparagraph, and the Secretary has approved the details in writing; and
 - (iii) the expiry of a period of ten days after the owner of the large dam has given notice in writing to the Secretary of the proposed commencement of the dam works; or
- (b) after the expiry of a period of twelve months from the date on which the Secretary approved the details referred to in subparagraph (ii) of paragraph (a): Provided that the Secretary may, on the application in writing of the owner concerned, extend the period for such further period or periods in aggregate not exceeding thirty-six months as the Secretary may specify.
- (2) The Secretary may, before approving the details referred to in subparagraph (ii) of paragraph (a) of subsection (1), require the owner of the large dam concerned—
- (a) to cause such further investigations to be made; and
 - (b) to provide such additional information; and
 - (c) to modify the design, plans and specifications concerned in such manner; and
 - (d) to provide such additional certificates of adequacy and safety; as, and within such period as, the Secretary may specify.
- (3) A person who commences dam works in contravention of subsection (1) shall be guilty of an offence and liable to a fine not exceeding level seven or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

122. Supervision of dam works in respect of large dams.

- (1) The owner of a large dam referred to in section one hundred and twenty-one shall cause an approved civil engineer—
- (a) to arrange for the adequate supervision of the progress of the dam works concerned for the purpose of securing compliance with the design, plans and specifications approved in respect of the dam works; and
 - (b) to maintain up-to-date drawings of the dam works concerned; and
 - (c) if so required by the Secretary, the National Water Authority and the catchment council, to submit to the Secretary, the National Water Authority and the catchment council such progress reports on the dam works concerned within such periods as the Secretary, the National Water Authority or the catchment council may specify.

- (2) The owner referred to in subsection (1) shall, if the approved civil engineer concerned considers that modifications to the details approved in respect of the dam works concerned are necessary—
 - (a) notify the Secretary in writing; and
 - (b) obtain his approval in writing; of the modifications before causing the modifications to be made.
- (3) The Secretary, the National Water Authority, the catchment council or any person authorized thereto in writing by them may, at any time during the progress of any dam works in respect of a large dam, have access to the dam works for the purpose of inspection.
- (4) The Secretary, the National Water Authority or the catchment council may, as a result of information received during the progress of dam works in respect of a large dam, require the owner of the dam to cause the approved civil engineer concerned to modify any design, plans or specifications relating to the dam works.
- (5) The owner of a large dam who contravenes subsection (1) or (2) or fails to comply with a requirement made in terms of subsection (4) shall be guilty of an offence and liable to a fine not exceeding level seven or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

123. Duties of owners on completion of dam works in respect of large dams and registration.

- (1) The owner of a large dam shall, within a period of—
 - (a) thirty days from the completion of any dam works in respect of the large dam, notify the Secretary and the catchment council in writing of the completion; and
 - (b) one hundred and twenty days from the completion of dam works in respect of the large dam or such longer period as the Secretary may allow, submit to the Secretary, the National Water Authority and the catchment council—
 - (i) a report in the prescribed form; and
 - (ii) such plans certified as true and correct by the approved civil engineer concerned of the completed dam works as may be prescribed; and
 - (iii) a completion certificate in the prescribed form of the adequacy, safety and completion of the dam works, signed by the approved civil engineer concerned; and
 - (iv) in the case of dam works other than the construction of a large dam, the registration certificate, if any, issued in respect of the small dam or large dam.
- (2) On receipt of the report, plans and completion certificate and any registration certificate submitted to him in terms of subsection (1), the Secretary shall, if they are satisfied that the dam works concerned are adequate and safe—
 - (a) in the case of the construction of a large dam, register the large dam and issue to the owner a registration certificate in the prescribed form; or
 - (b) in the case of dam works other than the construction or removal of a large dam, register the large dam and issue to the owner concerned a registration certificate in the prescribed form or amend the registration certificate concerned and return it to the owner, as the case may be;
 - (c) in the case of the removal of a large dam, cancel both the registration of the large dam and the registration certificate concerned.
- (3) The owner of a large dam who contravenes subsection (1) shall be guilty of an offence and liable to a fine not exceeding level six or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

124. Periodic inspections of large dams.

- (1) The owner of a large dam shall—
 - (a) cause an approved civil engineer to prepare instructions relating to the maintenance and operation of the large dam; and
 - (b) cause the large dam to be maintained and operated in accordance with instructions prepared in terms of paragraph (a) and with such additional instructions as the Secretary or the catchment council may from time to time give to them; and
 - (c) cause detailed measurements and observations of the large dam to be made by such person in such manner and at such intervals as the Secretary or the catchment council may require; and
 - (d) whenever requested to do so by the Secretary or the catchment council and, in addition, before the end of the month of June or of such other month as the catchment council may specify immediately following—
 - (i) the first season during which water was diverted or stored by the large dam; and
 - (ii) the first season during which water spilled from the large dam; and
 - (iii) each successive period of five years reckoned from the date of completion of construction of the large dam; cause a detailed engineering inspection of the large dam to be carried out by an approved civil engineer; and
 - (e) within a period of thirty days from the date of completion of—
 - (i) any measurements and observations made in terms of paragraph (c), submit to the Secretary and the National Water Authority such report thereon as the Secretary and the National Water Authority may specify; and
 - (ii) any detailed engineering inspection carried out in terms of paragraph (d), submit to the Secretary and the National Water Authority such report thereon as the National Water Authority may specify, together with a summary of the maintenance measures carried out since the date of completion of the large dam or of the previous such detailed engineering inspection, as the case may be.
- (2) The Secretary, the National Water Authority or any person authorized by them in writing may at any time carry out a detailed engineering inspection of a large dam.
- (3) The owner of a large dam shall provide the Secretary, the National Water Authority or any person authorized in terms of subsection (2), with such assistance and facilities in the carrying out of the inspection referred to in that subsection as the Secretary, the National Water Authority or such person may reasonably require.
- (4) If, as a result of any measurements and observations made in terms of paragraph (c) of subsection (1) or of a detailed engineering inspection carried out in terms of paragraph (d) of that subsection or in terms of subsection (2) or of a report submitted in terms of paragraph (e) of subsection (1), the Secretary in consultation with the National Water Authority considers that the large dam concerned is inadequate or unsafe, they may require the owner of the large dam to remedy, within such period as the Secretary may specify, the inadequacy or lack of safety concerned to the satisfaction of the Secretary.
- (5) If the owner of a large dam fails to comply with a requirement made in terms of subsection (4)—
 - (a) without reasonable excuse the onus of proof of which lies on him, he shall be guilty of an offence;
 - (b) the National Water Authority may remedy the inadequacy or lack of safety concerned and recover the cost of so doing, together with interest on such cost, from the owner by—
 - (i) proceedings in a court of competent jurisdiction against the owner; or

- (ii) if the owner is the owner of the piece of land on which the large dam or a portion thereof is situated, directing that the Registrar of Deeds make a note on the title deeds of the piece of land and in the appropriate register.
- (6) On receipt of a direction made in terms of subparagraph (ii) of paragraph (b) of subsection (5), the Registrar of Deeds shall make the note specified in the direction.
- (7) The owner of the piece of land referred to in subparagraph (ii) of paragraph (b) of subsection (5) shall, at the request of the Registrar of Deeds, produce his title deed in respect of the piece for the purpose of the noting referred to in subsection (6).
- (8) If an owner referred to in subsection (7) fails to produce their title deed for the purpose of noting referred to in subsection (6), they shall be guilty of an offence.
- (9) A note made in terms of subsection (6) shall constitute a hypothecation of the piece of land concerned—
 - (a) ranking from the date on which the note was made; and
 - (b) for the amount stated therein, together with interest thereon determined in terms of the Prescribed Rate of Interest Act [Chapter 8:08]; until such time as the amount and interest referred to in paragraph (b) have been paid to the catchment council.
- (10) The Registrar of Deeds shall not pass transfer of a piece of land hypothecated in terms of subsection (9) unless the catchment council has, by notice in writing to the Registrar of Deeds, released the piece of land from hypothecation.
- (11) Any person who contravenes subsection (1) or (3) shall be guilty of an offence and liable to a fine not exceeding level six and to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

125. Secretary may appoint council of consultants.

- (1) The Secretary in consultation with the catchment council may, if—
 - (a) in their opinion the safety considerations relating to a small dam or large dam so require; or
 - (b) the owner of the large dam concerned has failed to comply with a requirement made in terms of subsection (4) of section one hundred and five; or shall, if they are requested to do so in writing by the owner of a small dam or large dam and the owner gives security for the remuneration, allowances and costs referred to in subsection (3), appoint a board of consultants to report to him on any action to be taken in relation to the small dam or large dam concerned or to any design, drawings, plans, records, reports or specifications relating to the dam.
- (2) A board of consultants shall consist of two or more engineers who have—
 - (a) had wide experience of the design and construction of small dams and large dams; and
 - (b) not previously been associated with any dam works in respect of the small dam or large dam concerned.
- (3) If the Minister decides that the owner of the small dam or large dam concerned should pay the whole or any part of the remuneration and allowances and of any costs so incurred, together with the costs incurred by the State or the National Water Authority in connection with the exercise by the board of consultants of the functions specified by the Minister, they may deduct the whole or part thereof from the security given in terms of subsection (1) or recover the same from the owner by action in a court of competent jurisdiction.

126. Secretary may require owner to carry out dam works.

- (1) On receipt of a report made by a board of consultants, the Secretary may require the owner of the small dam or large dam concerned to carry out such dam works as the Secretary in

consultation with the National Water Authority considers to be necessary within such period as they specify.

- (2) If the owner of a dam or large dam—
- (a) carries out the small dam works concerned in accordance with a requirement made in terms of subsection (1), the Secretary shall register or amend or cancel the registration of, as the case may be, the dam or large dam concerned and issue a registration certificate or amend or cancel the registration certificate concerned accordingly; or
 - (b) fails, without reasonable excuse the onus of proof of which lies on them, to carry out any dam works concerned in accordance with a requirement made in terms of subsection (1), they shall be guilty of an offence and liable to a fine not exceeding level seven or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment; or [Subsection amended by section 4 of Act 22 of 2001]
 - (c) fails to carry out the dam works concerned in accordance with a requirement made in terms of subsection (1), the National Water Authority may cause the dam works to be carried out and recover the cost of so doing, together with interest on the cost, from the owner by doing either or both of the following—
 - (i) proceedings in a court of competent jurisdiction against the owner; or
 - (ii) if the owner is the owner of the piece of land on which the small dam or large dam or a portion thereof is situate, directing that the Registrar of Deeds make a note on the title deeds of the piece of land and in the appropriate registers, and subsections (6) to (10) of section one hundred and twenty-four shall apply, mutatis mutandis; and shall register or amend or cancel the registration, as the case may be, of the small dam or large dam concerned and issue a registration certificate or amend or cancel the registration certificate concerned accordingly.

127. Rights of access, inspection, investigation and survey.

- (1) The Secretary, the National Water Authority, the catchment council or any person authorized thereto by the Secretary, the National Water Authority or the catchment council in writing may—
- (a) have access to the site of any dam works, whether proposed or in progress, or to any existing small dam or large dam for the purpose of inspection; and
 - (b) if, in their opinion, it is necessary to do so in order to establish the adequacy and safety or otherwise of any dam works referred to in paragraph (a), carry out surveys and conduct investigations, whether by drilling, excavating, mining or otherwise.
- (2) The provisos to paragraph 12 of the Schedule shall apply, mutatis mutandis, in relation to the exercise of any powers in terms of subsection (1).

128. Procedure in emergencies.

- (1) If the owner of a small dam or large dam learns of any sudden or unprecedented flood or alarming or unusual circumstance or occurrence, whether anticipated or existing, which may adversely affect the small dam or large dam, they shall, in addition to discharging any duty, liability or obligation imposed on them by or under any other law—
- (a) forthwith take all such steps as may be reasonable and practicable for dealing with the flood, circumstance or occurrence, as the case may be; and
 - (b) as soon as practicable and by registered letter notify the Secretary and the National Water Authority, as fully as possible, of the flood, circumstance or occurrence, as the case may be, and of the action he has taken or proposes to take in terms of paragraph (a).

- (2) If the Secretary, whether or not they have been notified in terms of subsection (1), considers that a small dam or large dam is in any way endangered they may require the owner of the small dam or large dam to take such action as they may specify to deal with the situation either forthwith or within such period as may be specified by the Secretary.
- (3) If the Secretary after being notified by the owner of a small dam or large dam in terms of subsection (1) considers that the steps taken or proposed to be taken by the owner are inadequate or not sufficiently timely for dealing with the situation they may require the owner to take such action as they may specify to deal with the situation either forthwith or within such period as may be specified by the Secretary.
- (4) An owner who has been required by the Secretary in terms of subsection (2) or (3) to take any action shall—
 - (a) by registered letter notify the Secretary immediately after commencing to take the action; or
 - (b) report to the Secretary within a period of forty-eight hours after commencing to take the action on the progress and results of the action; and
 - (c) comply with such other instructions as the Secretary may from time to time give to them.
- (5) If the owner of a small dam or large dam fails to comply with a requirement made in terms of subsection (2) or (3) or to notify or report to the Secretary in contravention of, or to comply with any requirement made by the Secretary in terms of, subsection (4)—
 - (a) without reasonable excuse the proof of which lies on them, the owner shall be guilty of an offence; and
 - (b) the Secretary shall direct the National Water Authority to take such action as it thinks fit and recover the cost of so doing, together with interest on the cost, from the owner by—
 - (i) proceedings in a court of competent jurisdiction against the owner; or
 - (ii) if the owner is the owner of the piece of land on which the small dam or large dam or a portion thereof is situate, directing that the Registrar of Deeds make a note on the title deeds of the piece of land and in the appropriate registers, and subsections (6) to (10) of section one hundred and five shall apply, mutatis mutandis.
- (6) An owner of a small dam or large dam who contravenes subsection (1) shall be guilty of an offence and liable to a fine not exceeding level seven and to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

129. Procedure in emergencies arising during execution of dam works.

- (1) If, during the execution of any dam works in respect of a small dam or large dam, any sudden danger is posed to any works or structure connected therewith, and such danger renders it necessary to carry out immediate dam works otherwise than in accordance with the details submitted in terms of section ninety-nine or one hundred and two in respect of the small dam or large dam, as the case may be, the owner of the small dam or large dam—
 - (c) shall immediately commence the latter dam works notwithstanding that he has not complied with subsection (4) of section one hundred and eighteen or subsection (2) of section one hundred and twenty-one; and
 - (d) shall, within fourteen days after taking any action in terms of paragraph (a), notify the Secretary and the National Water Authority by registered letter as fully as possible of such action and of the circumstances necessitating it.
- (2) Any owner of a small dam or large dam who contravenes subsection (1) shall be guilty of an offence and liable to a fine not exceeding level six or to imprisonment for a period not exceeding six months or to both such fine and such imprisonment.

130. Exemption from liability areas.

- (1) Without prejudice to any defence or limitation which may be available in terms of any law, no liability shall attach to the State, the Minister, a catchment council or the National Water Authority or any agent or employee of the State, a catchment council or National Water Authority in respect of any loss, damage or injury sustained by any person as a result of the exercise or performance or purported
- (2) exercise or performance of or the omission to exercise or perform any power or duty conferred or imposed on the Secretary, a catchment council or the National Water Authority or any person authorized by them by or in terms of this Part unless the act or omission to act concerned was in bad faith or negligent.
- (3) Nothing done in terms of this Part shall be construed as relieving the owner or person in charge of a small dam or large dam of any duty, liability or obligation imposed on him by or under any other law in respect of the small dam or large dam.

Explanatory Notes

PART I PRELIMINARY

Section

131. Title and commencement

The Act could take effect on a future date, allowing the National Water Authority and other authorities to begin implementation without delay. Since the Act envisions progressive implementation, this delay need not be long. However, provisions that require work and investment to amend water systems can have a phased-in implementation. Experience elsewhere shows that this must be mandatory with strict penalties for noncompliance.

132. Interpretation

In many legal systems, it is common to provide definitions to help interpret and apply the law. Definitions can be clarifying and valuable tools, especially for complex terms. Modern computer search capabilities make it unnecessary to include the usual "unless the context clearly requires otherwise" clause. Definitions are provided for terms that appear in multiple sections of the Code and are used in a precise sense that may not be self-evident to an ordinary person. Definitions are not provided for a term that has a simple dictionary definition or when a term used is, and is expected to remain, vague rather than precise.

133. Application of this Code in relation to other laws.

The application of code in relation to other laws refers to how the code interacts with other legal systems, both within the same jurisdiction and across different jurisdictions. It further provides that this Code should prevail, in the event of conflict with another law.

PART II GENERAL PRINCIPLES OF WATER MANAGEMENT AND FUNCTIONS OF THE MINISTER

134. Water vested in the President.

Water is considered a public good according to custom and traditions in Zimbabwe. The Constitution also provides that everyone should have access to water. Vesting water in the President, ensures that water remains a public good that can be allocated fairly and efficiently by government based on the powers conferred on them by the President.

135. Water Rights and Principles of Water Management

The right to water and principles of water management serve as the general framework for developing water management plans, guidelines for exercising any function concerning the use, protection, or management of water, and guidance for the interpretation, administration, and implementation of any other law concerning the use, protection, or management of water. This section establishes that water is a public good and that everyone has the right to access it. It also outlines the key principles that should guide water management, such as efficiency, sustainability, and public participation.

136. General functions of the Minister.

This section indicates the functions of the Minister in relation to the implementation of the Code.

137. Secretary and other officers.

This section highlights the appointment of the Secretary and other officers.

138. Delegation of powers by the Minister and Secretary.

The Code provides delegation powers to the Minister as Secretary as prescribed in this Section.

139. Powers of officers.

Officers are conferred with powers and duties which are indicated in this section.

140. Powers in respect of hydrological stations.

This section refers to the powers pertaining to hydrological stations.

PART III

ESTABLISHMENT, FUNCTIONS AND PROCEDURES OF CATCHMENT COUNCILS

141. Establishment of catchment councils.

Zimbabwe is made up of up of seven major river systems which form the basis for catchments namely: Save, Runde, Mzingwane, Gwayi, Sanyati, Manyame and Mazowe. Apart from Save and Runde, the other main rivers drain into either the Zambezi or the Limpopo, which constitute international rivers. The composition of the catchment councils is indicated in this section.

142. Functions of catchment councils.

The section indicates the function of catchment councils. According to this section, they are responsible for the planning, regulation, and supervision of water use in its river system. It may also delegate some of its functions to sub-catchment councils, but it retains the power to grant permits, exercise the delegated functions itself, and amend or withdraw any decision of a sub-catchment council.

143. Powers of catchment councils.

The catchment councils have broad powers to grant, manage, and oversee water permits in their respective river system. These powers are designed to ensure that water resources are used sustainably and equitably.

144. Principles to be observed by catchment councils in considering applications for Permits for use of water.

The catchment council has the power to grant water permits, subject to certain conditions, including the priorities set out in the outline plan and the need for equitable and sustainable water use. The Minister may prescribe regulations on the prioritization of water uses, the allocation of water between competing users, and the methods of allocating water.

145. Establishment and functions of sub-catchment councils.

Sub-catchment councils are responsible for the regulation and supervision of water use within their areas, as well as for performing other functions as may be conferred upon them by the water code. They may levy rates and fees to cover their expenses, and their decisions may be appealed to the Administrative Court.

146. Persons interested in matters before catchment council.

The sections you provided describe the procedures that catchment councils must follow when determining matters submitted to them. These procedures are designed to ensure that catchment councils make fair and informed decisions that take into account the interests of all stakeholders.

147. Costs.

The section refers to the costs in respect to any proceedings before a catchment council.

148. Orders of catchment council.

Catchment councils have broad powers to make decisions on water-related matters, and that their decisions are binding on the parties involved. This ensures that catchment councils can effectively manage water resources and resolve disputes.

149. Catchment manager.

A catchment manager is the day-to-day manager of the catchment council, but they are accountable to both the catchment council and the National Water Authority. The catchment council may delegate some of its functions to the catchment manager, but it retains overall responsibility for water management in its area. This structure ensures that the catchment council is able to draw on the expertise and resources of the National Water Authority, while also maintaining its independence and autonomy. It also helps to ensure that the catchment council is accountable to the public and to the government.

150. Powers of catchment managers.

A catchment manager has the power to make certain decisions on behalf of the catchment council when the catchment council is not meeting. The catchment manager also has the power to adjudicate disputes submitted to them by the parties involved. This structure helps to ensure that water management can continue even when the catchment council is not meeting, and that disputes can be resolved quickly and efficiently.

151. Services by National Water Authority to catchment councils.

The section indicates the services that will be provided by the National Water Authority to Catchment Councils.

152. Inspections.

Catchment council members and other authorized persons have the power to enter private property to enforce the water code and protect the rights and freedoms of others. This power is subject to certain safeguards, such as the requirement to inform the person in charge of the land of the purpose of the visit. Anyone who interferes with the exercise of this power can be prosecuted and may also lose their water permit. This power is important for ensuring that the catchment council can effectively manage water resources and protect the public interest. It also helps to deter illegal water use and other activities that could harm water resources.

PART IV GENERAL PROVISIONS

General Obligations and Prohibitions

153. The Obligation to Make Only Reasonable Use of Water

Traditional common law water rights resolved water use conflicts by determining which use was reasonable. This section carries that criterion forward as the fundamental principle for allocating water under the Model Water Code. All water uses, including those not requiring a permit or allocation, must be "reasonable" as defined in the Code. This seeks to eliminate or minimize wasteful water uses, prevent unreasonable injury to other water right holders, and ensure that the State's waters are allocated to the uses most consistent with the public interest and sustainable development.

154. No Unreasonable Injury to Other Water Rights

The Model Water Code retains the common law water rights standard: no use is lawful if it unreasonably harms other lawful uses. Determining reasonableness remains a balancing of affected parties' and society's interests. The Code transfers primary responsibility for determining unreasonable injury from courts to the National Water Authority. Compensation to affected parties through voluntary agreement or National Water Authority measures negates unreasonable injury.

155. Protection of Property Rights

The Model Water Code proceeds on the theory that while the State cannot take a vested property interest without just compensation, including a vested property interest in the use of water, the State can regulate property rights in the public interest. For this purpose, the State can compel even holders of vested property interests to obtain a permit subject to loss of their property interest if they fail to comply with the permit requirement. This is particularly true for water, as the waters of the State are owned by the State in trust for the public, with only the right to use water being owned by particular users. This approach does not deny all protection of property rights, even in water, as regulation can become so extensive as to amount to a taking, particularly if the regulation deprives a property owner of substantially all economic value or imposes a significant burden not related to activities on the property.

Transitional Provisions

This chapter provides the usual, and basic, provisions necessary for the transition from a prior legal regime to the regime created under this Model Water Code.

156. Prior Laws Repealed

The enactment of any law implicitly repeals, in whole or in part, all inconsistent prior laws. Which prior laws are affected may remain unclear until there is extended litigation.

157. Continuation of Prior Orders, Permits, Rules, and Regulations

The Model Water Code seeks to provide continuity in the transition to the new body of law by preserving all prior juridical acts taken under the laws repealed by this Code until such

time as the National Water Authority reviews the juridical act in question and takes appropriate steps to replace it by acting under the National Water Authority's authority as conferred by this Code. The preservation of the validity of prior juridical acts does not extend to orders, rules, or regulations that are inconsistent with this Code. Moreover, prior permits remain in effect until a replacement permit is issued. These subsections also provide that the existence of an unexpired term for a prior permit does not preclude the issuance of a new permit including conditions as provided in this Code, even if the new conditions are inconsistent with the terms or conditions of the prior permit. These two subsections should be omitted in a State that has not had water use permits prior to enactment of this Code.

PART V

WATERS SUBJECT TO ALLOCATION

Waters Subject to Allocation

158. Waters Subject to Allocation

This section declares the basic rule that all waters are subject to allocation pursuant to the Model Water Code. In general, allocation will occur by the issuing, altering, terminating, or denying of permits. Integration of the management of underground water with that of defined surface water sources is common among existing regulated water statutes, although not universal. The allocation of water under this Code does not preclude other sorts of regulation relating to water-based activities.

159. Certain Shared Waters Exempted from Allocation

The Model Water Code supports the cooperation between States, state agencies and local governments, as well as private entities.

160. Water for Primary Use Exempted from Allocation (optional)

This provision is similar to that found in several existing regulated water statutes. The exemption from regulation enables landowners to use diffused surface water in whatever manner appears to be most efficient to them without entering into disputes about the precise legal category of the water at the point where it is exploited. This rule also generally serves to exempt what are usually (because of the limited nature of the water source) small scale users of surface water sources from the expense and other burdens of the allocation process established by the Model Water Code. This preference usually will amount to a benefit to agricultural users of water, although nothing in the Code so restricts it. It also exempts small-scale users of surface water from the permit process. The exemption is restricted to small quantities of water, and users are still subject to regulations designed to preserve water resources in water emergencies. Under particular circumstances, a user under this section can voluntarily choose to register the use or even to obtain a permit for the use under sections thirty or seventy-four. This Code bases the exemption on the maximum size of the water basin. However, few comparable statutes express the exemption in terms of maximum flow or the maximum size of a pond rather than in terms of the size of the watershed. These approaches require greater intrusion by the National Water Authority to determine whether a particular stream or pond qualifies for the exemption. The Authority can easily determine whether a particular watershed has the selected size without close subsequent monitoring to determine whether the flow or size of a water source has changed, artificially or naturally. A legislature considering enacting this provision should

carefully consider the size of the drainage area that will be exempted from formal allocation pursuant to this Code. If the exemption takes in too many uses of water, it will seriously impair achieving the goal of sustainable development or otherwise realizing the public interest in the waters of the State. The figure selected here is deliberately kept small to ensure that any significant use of water comes within the regulatory authority of the State.

Protected Minimum Flows or Levels

161. Protected Minimum Flows or Levels Not to Be Allocated or Withdrawn

This section sets forth the basic responsibilities of the State and of persons using water to protect the biological, chemical, and physical integrity of each water source in the State. Respect for and protection of these integrities are central to achieving the goal of sustainable development and protecting the public interest in the waters of the State in light of climate change. The responsibilities to protect the several integrities of the waters of the State are primarily discharged by the National Water Authority through the establishment of a protected minimum flow or level for each water source, which is then not subject to allocation to particular water users, except as provided in this Part of the Code. Additionally, the protected minimum flows or levels are to be protected from impairment by everyone using water in the State, whether pursuant to a permit or otherwise. The protection of established minimum levels or quantities usually will be through the terms and conditions attached to each permit as it is issued, or through orders or regulations adopted by the National Water Authority pursuant to a water shortage or water emergency. Generally, this will occur through steps to define the safe yield of a water source and to limit total consumptive uses to the safe yield. The myriad of circumstances that could affect the protection of minimum flows or levels cannot usefully be delineated in a legal code and cannot be fully described in conditions to a permit.

162. Standards for Protected Minimum Flows or Levels

This section establishes that the standards for minimum flows or levels are not set by this Code, but by other relevant laws. The primary laws would need to be introduced that regulate cleanliness or safety of water, with potential for Act of Parliament regulating the environment or wildlife to include provisions that regulate the minimum flow or level of water. In the United States they rely on the Clean Water Act, the Safe Drinking Water Act, and the Endangered Species Act, along with corresponding State legislation. Almost any statute dealing with protection of the environment might prove relevant to establishing the standards for a particular water source. The National Water Authority is to particularize the minimum flow or level for each source through a regulation adopted after suitable planning and study. The trend today is to manage withdrawals (including releases from reservoirs) so as to mimic natural seasonal variations in flow in order to preserve the biological integrity of the water source.

163. Effects of Water Shortages or Water Emergencies

Subsection (1) provides the National Water Authority with authority to act to protect protected minimum flows or levels through invocation of the powers relating to water shortages or water emergencies. Subsection (2) provides the National Water Authority with authority to make temporary allocations of water within the protected minimum flows or levels when strictly necessary to prevent injuries to established waters uses during a water emergency, but not during a water shortage. Such temporary allocations are authorized only

if that can be done without permanent impairment of the values served by the establishment of the protected minimum flows or levels. Any lesser standard would be inconsistent with the goal of sustainable development. In order to ensure this, subsection (3) requires prior planning to establish the emergency minimum flows or levels that are to be protected should the power in subsection (2) to make emergency allocations be exercised. The establishment of emergency minimum flows or levels would usually be part of the more general process of planning drought management strategies under the Code.

164. Burden of Proof

Generally, the protection of established minimum levels or quantities will be through the terms and conditions attached to each permit as it is issued, or through orders or regulations adopted by the National Water Authority pursuant to a water shortage or water emergency. Subsection (1) provides that in any proceeding in which a person seeks to challenge the Authority's determination in this regard, the person making the challenge has the burden of proving by a preponderance of the evidence that the person's proposed withdrawal and use will not impair the protected minimum levels or quantities. The standard of preponderance of the evidence recognizes that there can be no absolute proof of a negative about the future. The person challenging the Authority's decisions regarding protected minimum levels or flows must introduce enough credible evidence that, even after rebuttal by evidence introduced by the Authority or others participating in the proceeding, it appears more likely than not that the challenger's proposed withdrawal and use will not impair the protected minimum levels and quantities. Some States might prefer to adopt a higher burden of proof in this regard to reflect the "precautionary principle." (The precautionary principle requires that in making decisions about the environment, errors should be made in favour of protection as a precaution against the potentially irreversible consequences of errors that, in retrospect, turn out to have provided inadequate protection).

**PART VI
ADMINISTRATION**

General Administrative Authority

165. Basic Responsibility and Authority

This section provides that the National Water Authority is vested with all powers necessary to accomplish its purposes. These powers include planning, the implementation of regulations and procedures, and public projects. The only limitation is any possible judicial finding that particular powers are not delegable by the legislature under the State's constitution.

166. Non-Impairment of General Powers

Courts have often interpreted express grants of authority to an administrative Authority to undertake certain activities or functions as implicit denials of authority to undertake activities or functions not expressly granted. The Model Water Code expressly rejects that approach to interpreting the provisions of the Code. Although specific express limitations established in other sections of this Code are binding on the National Water Authority, no inference is drawn of more general limitations than those expressed in this Code.

167. General Administrative Powers

This section sets forth in some detail the authority of the National Water Authority to undertake the usual routine steps that any governmental Authority will find necessary to its own internal administration or to undertake by contract or otherwise to conduct its non-regulatory and non-planning relationships with the world outside the Authority. These general powers might be reshaped in any particular State to conform to the administrative law and practice of the State. In particular, if the National Water Authority is under a particular department in the State's government, the director of that department might be vested with staffing and budgetary needs. Some of the general powers specified in this section are treated in more detail elsewhere in this Model Water Code when the specified general powers intersect with regulatory or planning activities or functions, particularly those activities or functions that relate to the central policies expressed in this Code.

168. Special Funds Created

The Model Water Code establishes a State Water Fund to improve the waters of the State and an Interbasin Compensation Fund to compensate for Interbasin transfers. The State Water Fund can be used to build infrastructure, purchase water rights, or promote sustainable development. The Interbasin Compensation Fund is used to benefit the water basin of origin.

169. Regulatory Authority of the National Water Authority

This section outlines the regulatory and planning functions of the National Water Authority. The Authority can adopt regulations setting standards for activities carried out under the Code, such as the planning, design, and operation of water withdrawal projects and facilities, flood protection works, groundwater recharge operations, water basin management programs, trunk mains, water and waste treatment plants, and water-related recreational facilities.

170. Application Fees

The costs of complying with the permit and registration requirements of the Model Water Code can become a significant burden to persons seeking to use water in various forms and can also constitute a significant drain on the resources made available to the National Water Authority. The Code prevents the latter difficulty by providing that the costs of processing applications shall be borne by permit applicants. This would be particularly burdensome for small users, however. The Code seeks to prevent this from becoming problematic by exempting small users from the need to apply for a permit and by exempting the smallest users even from the requirement that they register their activities.

171. Water Use Fees

This section highlights the importance of water use fees in promoting efficiency and sustainable development. It argues that water should be treated as an economic good, and that users should pay a reasonable share of the value of the water they use. The Model Water Code authorizes the National Water Authority to charge water use fees. The Authority has broad discretion to set fees but must consider the policies expressed in the Code. The Code provides a check on the Authority's discretion by requiring that fee regulations be approved by the state legislature.

The passage also discusses the need to phase in water use fees over a transition period to cushion the impact on existing users. It also discusses different ways to use the revenue from water use fees.

172. Protection of Confidential Business Information

Applicants and other persons will from time to time be required under the Model Water Code to disclose information that they consider confidential business information. This section of the Code establishes the obligation of the National Water Authority to protect confidential business information under most circumstances. The section also establishes procedures to determine whether a claim of confidential business information was properly made and for disclosing confidential business information in the course of administrative or judicial proceedings.

If confidential business information is to be used in a legal proceeding, the Code requires that the person claiming confidentiality be given notice of the intent to do so at least 10 business days before the attempt to admit the information and that the person claiming confidentiality not be opposed by the National Water Authority when that person seeks to enter the case to litigate the question of confidentiality. A legislature might select some notice period other than 10 business days specified in this section, but the principle that the person claiming confidentiality be heard before the evidence is admitted into open court or an administrative proceeding is an important principle that no State should ignore.

This Code rejects, however, the common practice of claiming simple data of how much water is withdrawn or consumed as confidential business information. If the public is to be in a position to evaluate the performance of the Authority, this information must be a matter of public record.

Planning Responsibilities

173. The Comprehensive Water Allocation Plan

Planning obligations are usually included in existing regulated water statutes. In fact, some commentators have concluded that the existing regulated water statutes require permits more to ensure data for the State's planning processes than for actually controlling how water is used. Although the Model Water Code does not subscribe to the latter view, it does place planning at the centre of the National Water Authority's responsibility.

The Comprehensive Water Allocation Plan is to guide the National Water Authority in all its activities and other persons whose activities are subject to regulation by the Authority. This section sets forth the obligations and limits of the Authority's intermediate and long-term planning authority, spelling out in some detail the matters that must be considered and the conclusions that must be included in the State's comprehensive water allocation plan.

Subsection (1) establishes the obligation to complete development of the comprehensive water allocation plan within five years of the effective date of this Code. The plan is defined in section 2 as a plan for the intermediate and long-term management of the waters of the State with a view toward the sustainable development and reasonable use of the waters of

the State. After completing the initial plan, the National Water Authority is to update the plan as needed, being given the discretion to decide when and how often to do so.

Subsection (2) establishes sustainable development as the legal goal of the planning process. The goal of achieving sustainable development is pervasive throughout the Code, but it comes to the fore in the planning process. As consistency with the comprehensive water allocation plan is a prerequisite for obtaining a permit, sustainable development also serves as a legal standard for use of the waters of the State.

Furthermore, although the plan will probably never be the exclusive consideration in determining whether a use is reasonable, the plan will go a long way toward resolving that question, including an evaluation of the reasonableness of particular classes of use from a particular water source.

Subsection (2) specifies the minimum contents of any comprehensive water allocation plan. Subsection (3) ensures a reasonable opportunity for all interested persons to have input on the plan while it is being formulated. The procedures for providing such access presumably would include hearings as provided in the Code. Because of the extensive reach of this section, States may consider inviting other government agencies or pertinent international institutions to join in formulating the plan.

174. Drought Management Strategies

Responding to water shortages and water emergencies will often be the most controversial steps that the National Water Authority will undertake. To ensure both that the National Water Authority responds in a careful manner to any shortfall in available water and that water users have ample notice of the risks they run in the event of a serious shortfall in the water available in the water source on which they rely, the Model Water Code requires the National Water Authority to undertake advance planning of Drought Management Strategies and to keep abreast of conservation measures and plans of conservation by permit holders. The resulting published Drought Management Strategies will serve to guide the drought responses of the National Water Authority and of persons using water. The planning of Drought Management Strategies cuts across the comprehensive water planning otherwise required by this Code.

Drought Management Strategies will indicate the sort of shortfalls that will cause the National Water Authority to invoke its powers relating to water shortages and water emergencies. The strategies will also specify the priorities to be given to different classes of use. In general, the priorities will reflect the protection of minimum levels in water sources and the preferences applicable to competing applications. Priority will also have to be given to water uses mandated by the government or under interstate obligations binding on this State. Additional priorities might be found in the comprehensive water allocation plan or in area water management plans created by Special Water Management Areas.

The Drought Management Strategies will contain an inventory of steps to curtail use and otherwise to protect the biological, chemical, and physical integrity of the affected water sources and to ensure that water is available for the most essential uses, redefining the safe yield of the affected water source under the drought conditions.

The Drought Management Strategies will also outline means of ensuring compliance with such measures and proposed means for, in so far as possible, restoring (“rehabilitating”) the water sources to their normal or usual physical state under conditions of sustainable development.

If it becomes necessary to compromise these goals (protection, assurance, and rehabilitation), the Drought Management Strategies will include the indicia of, and the steps for responding to, the water emergency conditions that alone justify such compromises. In keeping with the emphasis of this Code on encouraging and enabling persons to respond through their own arrangements to the needs and problems, the Code, in section one hundred and six, provides for conservation credits for persons who undertake voluntarily to curtail their usage during periods of shortage or emergency. The same section of the Code also encourages water right holders to agree among themselves how to curtail use during water shortages or water emergencies. To take such agreements into account in planning for the water shortages and water emergencies, the Code requires such agreements to be registered in advance and reserves the authority to the National Water Authority to disallow the agreements on the same basis as the Authority might disapprove a transfer or other modification of a water right.

The focus on Drought Management Strategies in this Code reflects its focus on water allocation issues. In some States, the National Water Authority will also be given responsibility for water quality, flood control, and other non-allocational issues. In those instances, this section should be expanded to cover these broader responsibilities in the form of general water shortage and water emergency strategies rather than just Drought Management Strategies.

175. The Nationwide Data System

The National Water Authority, and other persons within the State, need accurate and complete information in order to fulfil their responsibilities relating to water. In particular, without accurate data, the sort of comprehensive planning that the Model Water Code contemplates is impossible.

The Code creates a nationwide data system to be administered by the National Water Authority and accessible to public and private persons upon the payment of a reasonable fee to recover the expenses of making the data available to that person, not the expenses of gathering and maintaining the data. The availability of the data to the public is limited by the protection required for confidential business information. The Code also imposes an express duty on all other agencies and branches under the State’s authority to provide relevant data to the System.

The State cannot compel nongovernmental agencies or interstate or international organizations to cooperate with the nationwide data system, yet their cooperation could be vital to the success of the system. The Code requires the National Water Authority to invite the participation of these agencies or branches and authorizes the National Water Authority to cooperate with them. The terms of cooperation, including cost sharing and assured access, would need to be negotiated in each instance.

176. Planning Advisory Committees

The Model Water Code seeks to ensure the participation of affected persons in activities undertaken by the National Water Authority. For the planning functions, the numbers of people affected are generally too large to enable all to participate in person. Some regulated water statutes provide in detail for separate planning bodies, often with elaborate provisions as to the constitution and functioning of those bodies. This section of the Code provides for representative participation through the inclusion of representatives in planning advisory committees to work with the National Water Authority in formulating the comprehensive water allocation plans and Drought Management Strategies required under this Part. The Code leaves it to the National Water Authority to define by regulation how such committees are to be established and function. Such regulations are subject to judicial review on the same basis as any other regulation adopted by the National Water Authority pursuant to this Code. This section is supported by a policy on public participation.

Coordination with Other Branches or Levels of Government

The ambient nature of water ensures that no level or Authority of government can operate without affecting other levels and agencies of government, just as no user of water can withdraw water without affecting other users. This Part sets forth a comprehensive set of provisions for the cooperation and coordination of the National Water Authority with other levels and agencies of government. To the extent it is within the authority of the State to do so, this Part also imposes an obligation on other agencies of government to cooperate and coordinate with the National Water Authority. When, as with interstate, and international units of government, the State cannot impose the duty, the Code authorizes the National Water Authority to cooperate with those units on a voluntary basis. Finally, this Part provides for certain protections of persons subject to regulation or condemnation from difficulties they might confront from incomplete coordination. The specific problems of coordinating water allocation with water quality issues, if responsibility for those issues are vested in different agencies of the State, are further addressed in Part VIII.

177. Cooperation with other States and International Organizations

As the government becomes an ever more important player in the conservation, development, and use of water, it becomes ever more important that the National Water Authority have clear authority to coordinate its activities with those of international water agencies. The Model Water Code authorizes such cooperation, but only when the National Water Authority determines that to do so would be consistent with the policies and provisions of the Code. In case of conflict between the policies and provisions of this Code and interstate compacts and international treaties ratified by the Republic of Zimbabwe, of course, prevail, but such problems must be addressed by the legislature or other responsible organs of State government and not by the National Water Authority.

The Code deals similarly with the coordination of the National Water Authority's activities with the activities of interstate or international commissions or other bodies created by interstate compact or international treaty to manage, develop, or conserve waters shared across state or national boundaries. Most interstate compacts in States likely to adopt regulated water statutes merely call for the States to share information and to consult in formulating individual state plans and policies.

178. Cooperation with other Agencies and Local Government

All States have agencies and local units of government, directed at conserving or managing local water supplies to meet particular needs. Although the responsibility and authority to implement the policies and provisions of this Code remain vested in the National Water Authority and are not delegated to other units of government except as might be specifically authorized in this Code, the Code seeks to foster a cooperative rather than a competitive attitude among these various units of government. This section goes beyond merely requiring the cooperation of different units of State government; it authorizes to the National Water Authority to provide active support to the activities and functions of other units of State and local government relating to water in so far as the resources available to the Authority enable it to do so. The section specifically authorizes the National Water Authority to assist other units of government in their planning activities related to water and to maintain the necessary staff to aid those units in both achieving their own purposes and in conforming their activities and functions to the requirements of the National Water Authority pursuant to this Code. Support will better enable the other units of State and local government to comply with the policies and provisions of this Code and also to take best advantage of the opportunities provided by federal grants and other programs. The National Water Authority is also authorized to assist the other units of State and local government in their relations with the State legislature in so far as those relations concern the waters of the State.

179. Duty to Cooperate

Similarly, to the charge to the National Water Authority to cooperate with other agencies of State and local government, the Model Water Code requires all other governmental units within the State to cooperate with the National Water Authority in the fulfilment of its duties under the Code. This requirement relieves the other units of government from any objections they might make to cooperating based on lack of authority under State or local law. The only surviving legal impediments to cooperation, if any, must be found in the State constitution. Ordinary law enforcement officers throughout the State are placed under a duty to cooperate with the officers or employees of the Authority in the enforcement of the provisions and requirements of the Code. The duty is generalized to a duty of all officials of State and local government to cooperate within the limits of their offices. Such a general duty is justified by the importance attached to the proper planning, management, and regulation of the waters of the State. As a corollary to this duty, duly authorized employees of the National Water Authority are required to turn persons they arrest over to the ordinary law enforcement officers promptly.

180. Combined Permits

The Model Water Code recognizes the close relationship between water allocation and water quality. Although the focus of the Code is on water allocation issues, the Code cannot avoid addressing at least some water quality issues. States that already combine the decision-making processes relating to water allocation, water quality, and other water management issues in a single Authority will have a much easier time coordinating the two policies. For States that assign the regulation of these different water management issues to different agencies, statutory coordination is necessary. To ensure that persons subject to these separate processes are bound by a single, consistent set of requirements and are not unduly burdened by the costs of security duplicative permits, the two agencies are charged to combine their permits when permits from different levels of government are necessary, regardless of whether the differing permits serve quantity, quality, or other purposes.

PART VII
APPEALS AND DISPUTE RESOLUTION

Appeals

- 181. Interpretation of Part VII**
- 182. Composition of Administrative Court for Purposes of this Act**
- 183. Appeals against decisions of authority**

Dispute Resolution

Disputes over the allocation of water or the modification of water rights should be resolved as expeditiously, inexpensively, and fairly as possible. Once a dispute arises, the persons involved generally discuss their differences and try to settle the misunderstanding or disagreement through the informal process of negotiation. Negotiation offers the advantage of allowing the persons themselves to control the process and the solution and, thus, offers the greatest assurance of achieving a mutually satisfactory outcome that they will honor rather than seek to evade. As a result, the majority of disputes will never enter any formal dispute resolution process; most will be settled through negotiation.

If direct negotiations between the parties to a dispute fail, various forms of alternate dispute resolution have been developed to combine the advantages of greater party control than is possible for litigation and third-party intervention designed to facilitate (mediation) or mildly compel a resolution to the dispute (arbitration). The four goals of alternative dispute resolution are to

- (1) relieve more formal dispute resolution mechanisms of congestion and the parties to the dispute of undue cost and delay;
- (2) enhance community involvement in the dispute resolution process;
- (3) facilitate access to justice; and
- (4) provide more effective dispute resolution.

Most regulated water statutes already in place say little or nothing about resolving disputes between holders of water rights. This silence relegates the parties to any such dispute, once they have exhausted their own efforts to negotiate their differences, to the law courts. This Part of the Model Water Code encourages a wider range of informal dispute resolution for all disputes involving the waters of the State and requires arbitration for disputes between permit holders.

184. Support for Informal Dispute Resolution

The Model Water Code facilitates the settlement of disputes by negotiation between the parties, whether through mediation or otherwise, by providing that the National Water Authority will be bound by the terms of the resulting agreement once it is filed by the Authority, unless the Authority determines that the agreement or its effects are inconsistent with the policies or requirements of the Code. Any person aggrieved by the Authority's determination to recognize such an agreement is entitled to judicial review on the same terms as any person aggrieved by any final order or decision by the Authority.

185. Conciliation or Mediation

If negotiations directly between the parties fail, this section authorizes the National Water Authority to facilitate the negotiations in an effort to achieve the sort of informal outcome that offers the best chance of long-term success.

Two techniques are available for this intervention, and both are authorized. The least intrusive role possible for a representative of the State in helping to resolve a dispute not involving the State is conciliation in which the Authority merely functions as a conduit for information and encourages the parties to devise their own solutions. The Authority takes on a slightly greater role in the process of mediation; in that process, the mediator suggests solutions to the dispute, although the Authority refrains from attempting to impose any solution it suggests to the parties. This express recognition is not to foreclose other modes of intervention that could also facilitate the informal resolution of a dispute.

This section authorizes any informal techniques that are mutually agreeable to the parties to the dispute if the Authority finds it can usefully perform a function under the technique. Some will consider this to be the most important function of the National Water Authority. Still, the Authority cannot undertake to conciliate or mediate every dispute between water right holders if only because of budget limitations, for conciliation and mediation can become a time-consuming and expensive process. Therefore, the section merely authorizes the Authority to become involved. The Authority retains discretion on how often and how extensively it will become involved in conciliation or mediation. The exercise of this discretion will necessarily be strongly influenced by the appropriations by the State legislature authorized for this purpose or for the National Water Authority generally.

In a proper case, the National Water Authority can refer the interested persons to a Catchment Council for conciliation or mediation, which could somewhat ameliorate the burdens of conciliating or mediating a large number of disputes.

Subsection (2) requires the National Water Authority to recover the costs of its services from the parties. As the process is non-adversarial, there is not, strictly speaking, a “winner” or a “loser” when the process is concluded. Therefore, one cannot allocate the costs to the loser, as might be done after litigation. To allocate the costs equally between the parties would often impose an impossible financial burden on the smaller participants in the process. The Model Water Code allocates the costs in proportion to the water use fees paid by the participants. Such an approach is consistent with the non-adversarial nature of the process and, generally, will be consistent with the ability of the participants to pay for the process. In short, the formula will usually be fair or equitable.

186. Administrative Resolution of Disputes among Holders of Permits to Withdraw Water

The Model Water Code pre-empts most litigation between holders of water rights held pursuant to a permit by providing a formal administrative process before the Authority to resolve the dispute. Although the compulsory aspects of this administrative process make it resemble full-blown litigation, the Code intends that the process generally remain more informal, less costly, and faster than litigation.

While certain features of this administrative process are found in some of the existing regulated water statutes, none of them contains a provision as extensive or complete as the

one set out in this Code. This procedure is designed to enable the Authority to retain its managerial control of the waters of the State without fear of confronting, for example, inconsistent judicial decrees entered in several separate private proceedings or that would somehow give third persons veto power over particular water sources or uses. The process is not available for all disputes because it does not reach disputes regarding water rights for which a permit is not required or disputes involving nonconsumptive uses. The Authority and the participants in the dispute remain bound to attempt informal dispute resolution before resorting to the arbitration hearing. Overall, the Model Water Code's administrative dispute resolution process is designed to be a fair and efficient way to resolve disputes between holders of water permits.

Civil Enforcement

Achieving the purposes and requirements of the Model Water Code are impossible without effective enforcement. The Code includes a detailed plan for the National Water Authority to enforce the provisions of the Code. The following measures should be read as a series of discrete steps following, when necessary, in succession until compliance is achieved. In a particular case, however, the sequence might be inverted or abbreviated. The measures set forth in this Part would be available to enforce the outcome of an arbitration proceeding as well as the requirements of this Code and regulations, orders, or decisions of the National Water Authority. Each of these measures includes some degree of actual or threatened punishment as well as (often) means for compensating the National Water Authority or others for the effects of the violation. The more strictly punitive sanctions are set off in a separate Part of this chapter, denominated "criminal enforcement."

187. Inspections and Other Investigations

Effective enforcement of the Model Water Code hinges on the ability to inspect and investigate whether water users are adhering to its provisions. The Code empowers duly authorized employees of the National Water Authority to conduct administrative inspections as deemed necessary for enforcement purposes. The authority to conduct administrative inspections is broadly defined in the Code and does not require a criminal search warrant.

A concern with inspections and investigations is the potential for the National Water Authority, or one of its duly authorized employees, to exploit this power to harass a particular water user or class of users. The Code aims to prevent this by limiting inspections to "reasonable times" and investigations to "reasonable frequency." Hearings and judicial review are available to address violations of these limits.

Moreover, while the Code authorizes inspecting property such as yards, it specifically excludes actual dwelling places (as opposed to yards, garages, and other outbuildings) from the searches and inspections permitted under this section. Additionally, subsection (2) holds employees personally liable for unlawful conduct in carrying out a search or inspection under this section. Subsection (3) explicitly includes the permit holder's records, including those of any self-monitoring required by the terms and conditions of a relevant permit, within the scope of a search or inspection. Such searches or inspections of records must adhere to the obligation to safeguard confidential business information from unauthorized disclosure. The search or inspection also encompasses the authority to conduct tests and similar investigations as deemed necessary by the duly authorized employee to determine whether the permit holder is complying with the terms and conditions of the permit and the Code in general.

188. Notice of Violation

The simplest response to any finding that a person is violating the provisions and requirements of the Model Water Code is a notice of violation to be issued by the employee of the National Water Authority who is making the investigation or inspection. The notice, which serves a function similar to a traffic citation, simply sets in motion a process consisting of further inspection and investigation and a hearing. Based on that process, the National Water Authority will determine the appropriate legal response to the violation.

189. Orders to Cease or Restore

Orders to “cease and desist” are one of the most common techniques available to administrative agencies to put an end to continuing violations of laws or regulations. Such orders are the administrative equivalent of injunctions in that the orders as such impose no liability or penalty for past conduct, instead focusing on directing what conduct is to be undertaken or authorized in the future. Should a person subject to such an order nonetheless persist in the prohibited conduct, penalties are attached to the violation of the order without reference to whether the original decision to issue the order was correct.

Rather than a “cease and desist” order (which, after all, is a mere redundancy), the National Water Authority is to issue an order to “cease,” or an order to “restore,” or an order to “cease and restore.” Under this Code, the Authority can expand on this concept to make any order reasonably necessary to achieve the enforcement of the Code. The Authority can then recover for civil liability or civil penalties, or negotiate civil charges, should the person(s) subject to the order defy it.

In cases in which the noncompliance involves the knowing reporting of false information or the like, criminal prosecution also becomes a possibility. Generally, such orders will be issued only after giving a hearing to the person accused of a violation and will allow a reasonable time to comply before sanctions come into play. In emergencies, the Authority can issue an order before the hearing and give that order immediate effect. In such a case, the Authority is to expedite its procedures, holding the hearing within a brief period of days to be determined by the legislative. The Code adopts a period of ten days. A State legislature might consider whether a shorter period would be administratively feasible.

190. Injunctions

Injunctions are orders from a court requiring a person to do something or to refrain from doing something. Injunctions are functionally similar to a “cease and restore” order. Injunctions carry greater force than orders to cease and restore in that persons who violate an injunction face imprisonment for contempt of court until they purge themselves of the contempt by complying with the injunction. Injunctions are one of the more commonly authorized methods for enforcing existing regulated water statutes. Because injunctions receive judicial scrutiny before they are issued, the Model Water Code authorizes the availability of an injunction in somewhat more broad terms than it authorizes orders to cease and restore. The Code also removes certain traditional restrictions on the availability of injunctions, including the requirements of irreparable injury and that there is no adequate remedy at law. In effect, the Code presumes that both conditions exist whenever there is a violation of the law, permits, or regulations relating to the waters of the State. Nor need the Authority attempt to seek a resolution of any problem through negotiations as a

precondition to seeking an injunction. On the other hand, the initiation of a suit for an injunction does not relieve anyone of any other possible enforcement measure available under the Code.

191. Civil Liability

The Model Water Code recognizes that any person injured by a violation of any aspect of the law created by or pursuant to this Code is entitled to compensation for their loss caused by the violation. The Code makes explicit that this includes the expenses of investigating and resolving the violation incurred by the National Water Authority as well as the more usual damages (such as restoration expenses) that the National Water Authority or an injured private party might recover. This section does not address whether the Authority can recover damages for the generalized degradation of the environment or ecosystems, in part because those concerns are at least partially covered by other sections of the Code, such as the provision of civil penalties. Courts will need to work out the interrelationship of these several enforcement measures as experience demonstrates their interaction. Generally, disputes between permit holders are to be resolved through the mechanisms provided in this Code. The Code encourages alternative dispute resolution, including arbitration of disputes between the holders of permits to withdraw water. Those procedures will include the provision of appropriate compensation with the possibility of judicial review. The section indicates, however, that private parties without a remedy under this Code can sue for damages. This section does not provide for recovery for generalized injuries to the public rather than specific injuries to particular persons.

192. Civil Penalties

The Model Water Code authorizes the National Water Authority to sue for civil penalties for any violation of the law created by or pursuant to the Code. The figure used should be prescribed by statutory instrument. The figure selected needs to be high enough to discourage violations without being so high that a court would be reluctant to enforce it. The following compilation of provisions from comparable statutes suggests the range currently used in similar provisions in existing regulated water statutes. In part, the problem of judicial reluctance is resolved by according the court discretion to assess the penalty (up to the limit expressed in the section) depending on the seriousness of the violation and other relevant factors. Normally, the civil penalty shall be at least equal to the monetary benefits to the violator, so long as that figure is not more than the maximum penalty provided for in the section. Civil penalties are to be paid into the State Water Fund. Thus, civil penalties shall be used to restore or enhance the diffused non-economic values that are one of the purposes of this Code to promote. The threat of civil penalties is a powerful tool to compel compliance with the Code, or any order, permit, or regulation under the Code. As the penalty is civil, the various procedural limitations applicable to crimes do not apply. The National Water Authority can act quickly as assessing the penalty does not depend upon the completion of all related judicial proceedings. Even modest penalties will mount quickly to a sizable sum if the violation persists through any significant amount of time because of the policy of counting each day as a separate violation. Finally, the order assessing penalties creates a lien enforceable by a summary proceeding. On the other hand, if the court assesses an excessive remedy, the National Water Authority can negotiate a settlement for a lesser amount, or the amount of the penalty can be challenged on appeal.

193. Civil Charges

The Model Water Code recognizes that, for various reasons, the National Water Authority might find it more effective to waive other possible liabilities or penalties payable to the Authority as a means of obtaining voluntary compliance from the offender. This approach is consistent with the Code's general approach of supporting informal and administrative dispute resolution whenever possible. This section authorizes the Authority to compromise its claims in just such an agreement, but only if the offender agrees to pay a negotiated civil charge payable into the same State Water Fund as are civil penalties, an approach consistent with the Code's encouragement of alternate dispute resolution. The figure is set at one-half the amount of civil penalties in order to provide some incentive for the Authority to use that more procedurally constrained enforcement tool. The Code does not expressly provide for enforcement of the agreement to pay civil charges. Under ordinary rules of contract law, the Authority can rescind the agreement if there is a material breach of the agreement. If the Authority rescinds the agreement, the usual liabilities and penalties become available once again to the Authority.

194. Liens for Liquidated Monetary Claims

The Model Water Code provides what might be its most effective enforcement measure through a provision that any liquidated claim for money due to the State, the National Water Authority, or the State Water Fund from the enforcement measures under this Code shall be a lien against the real estate involved in the violation. The lien holder can obtain a summary enforcement of the claim before any competent court, greatly expediting the collection of the moneys due. Lien statutes are, in any event, rare in water allocation statutes. The drafters of this Code have concluded that they should form a part of the remedial repertory available to the National Water Authority. This section provides a measure of protection to the owners of property that might be subject to such a lien by requiring that the debt be liquidated (i.e., for a definite amount no longer open to dispute). Further, the section provides that the lien is defeated if the owner can demonstrate that the violation occurred without the knowledge or neglect of the owner.

195. Citizen Suits (optional)

The broad discretion relative to enforcement measures conferred by the Model Water Code on the National Water Authority creates the possibility that the Authority will fail to undertake to enforce the Code or orders, permits, or regulations issued under the Code. To preclude this from happening under various other environmental statutes, legislatures have often made provision for citizen suits as an alternative enforcement mechanism. Such provisions are rare in water allocation statutes, although of the several that exist, all are found in regulated water statutes. Creation of such a possibility is highly controversial in the water allocation setting, because the possibility of citizen suits greatly strengthens the hand of highly committed groups (the "special interests" of political folklore), whether their commitment arises from hopes to profit from a particular enforcement action or from the highest ideals of civic and ecological responsibility. Because of the controversy about such a provision, this section is labelled "optional," unlike most other sections of this Code. The Code offers a model provision for citizen suits for those States that might want to include such a provision in their water allocation statute. The Code seeks to keep enforcement authority securely in the National Water Authority, but to ensure proper enforcement it confers the right to intervene in any subsequent enforcement proceeding on anyone who had given notice under this section of the intent to bring a citizen suit. Recognizing that a threatened citizen suit might be a strategy in a dispute between private parties, the section

also provides that the initiation of a relevant administrative dispute resolution precludes citizen suits independently of participation in the proceeding. The restriction of the right to sue to “citizens” rather than “persons” serves to prevent such suits from being brought by artificial persons. Natural persons who are not citizens of this State are also precluded. Most of the latter class will be persons resident in other States, who will only seldom hold water rights under this Code.

Criminal Enforcement

Most existing regulated water statutes declare some or all violations of the statute to be a crime. These provisions, common as they are, seem never to be enforced. The Model Water Code therefore does not make every or even most violations of the Code a crime, reserving such a serious enforcement measure to commensurably serious acts. If criminalization is reserved for crimes that evince an actual criminal intent, there is a greater likelihood that prosecutions will actually result, and convictions will actually ensue. This Part also includes the punitive revocation of a permit, which, while not strictly criminal in nature, is closer to a criminal enforcement device than to a civil enforcement device. The final section deals with a temporary arrest power conferred on duly authorized employees of the National Water Authority. The latter is a highly controversial provision that, because of the uncertainty over whether it should be included in the Code, is labelled optional.

196. Crimes

The only crimes under the Model Water Code are the knowing inclusion of any falsehood in a document filed or maintained under the Code or the knowing falsification of the data in any monitoring or similar device. Both acts are criminal offences, and each day of a continuing offense counts as a separate crime. Generally, the criminal provisions in this section will have their effect during the permit application and related process, although the provisions also relate to tampering with monitoring or the like during the exercise of water rights. The criminal provisions shall also come into play if noncompliance with an arbitration order or a cease or restore order involves the knowing report of false information or the like. More routine violations will not involve the possibility of a criminal prosecution. Civil enforcement measures all involve a considerable measure of technical expertise and technically based discretion that is most likely to be found in the National Water Authority. Thus, the Attorney General and prosecuting attorneys play no role in civil enforcement that for them would be an occasional diversion for which they often would be ill prepared. On the other hand, there is nothing unusual about the prosecution of the crimes set forth in this section. Therefore, the responsibility for prosecuting these crimes is vested in the officers who are expert in that process: the usual state prosecutors. As with investigations and arrests, the National Water Authority can initiate proceedings through its actions, but the Authority must turn the actual prosecution over to the usual governmental officers responsible for prosecuting crimes. Those governmental officers are under the general duty to cooperate with the Authority, but they remain responsible for their own duties under the laws governing their officers. The National Water Authority does not have the authority to control or direct the actions or decisions of these other responsible government officers. Setting the proper amount of the fine or imprisonment for a violation remains the responsibility of the court. This section sets forth broad outer limits to the penalties that a State legislature will want to consider carefully. Existing criminal statutes as part of existing regulated water statutes vary widely in the penalties they authorize or impose, as well in the acts they characterize as crimes.

197. Revocation of Permits

The gist of a revocation of a permit is punitive, and hence it is included in the provisions dealing with criminal enforcement. Still, the grounds for revocation are broader than those acts the Model Water Code defines as crimes. In addition to crimes, permits are also revocable for any wilful violation of the Code, even if not criminal, or as necessary to prevent an unreasonable injury as determined in an arbitral hearing under Part VII, although neither involves a crime.

198. Temporary Arrest Power (optional)

The Model Water Code vests discretion in duly authorized employees of the National Water Authority to arrest persons involved in criminal violations of the Code. This follows the model of parks rangers, who often are also vested with arrest power when they discover crimes in the course of their duties. Even though the crimes for which the temporary arrest power is authorized are quite narrow in scope, there are other procedural protections provided to limit the scope of the arrest power. Because of the anticipated controversy, this section of the Code is offered merely as an optional provision. The Code will function successfully whether this temporary arrest power is included or not. The power to arrest is hedged by several protections for the persons whom the employee seeks to arrest. First, the arrest must be based on probable cause to believe that a crime has occurred. This is a technical term from criminal law that describes a fairly high standard of evidence before an arrest can be justified. Second, the arrest must be to prevent flight or the loss of evidence. Given the crimes defined in this Code, these conditions are most likely to arise upon discovery of a falsified monitoring device or the like during an administrative inspection under section fifty-seven. Third, even before the arrest, the arresting officer is to give the standard “**Miranda**” warnings as required for any criminal investigation. Finally, such arrests are to be strictly temporary, with the employee to turn the arrested person over to the appropriate law enforcement officers as soon as is reasonably possible (“promptly”). One further protection of the public arises from the responsibility of the National Water Authority. The Authority not only must supervise the duly authorized employees to ensure their compliance with this section but can also regulate their discretion through its regulations. The National Water Authority will also have to undertake careful training of the personnel authorized to make temporary arrests to ensure they understand both the relevant provisions of this Code and any regulations adopted by the National Water Authority.

**PART VIII
ESTABLISHING A WATER RIGHT**

The Model Water Code’s most fundamental departure from the common law of water rights is the requirement that, with few exceptions, no water is to be withdrawn without a permit issued by the National Water Authority under the Code. The requirement derives from the State’s police power to regulate water withdrawal and use in order to protect public health, safety, and welfare through accomplishment of the public interest in the sustainable development of the waters of the State. The National Water Authority is to evaluate existing and proposed consumptive uses of water by criteria requiring the consideration of other existing or proposed consumptive and nonconsumptive uses of the water and the general public interest.

After setting forth the circumstances in which a permit is required, this chapter provides the procedures and standards for implementing the mandatory permit requirement. Broadly speaking, the procedures can be summarized as including the filing of an application, public notice and an opportunity for a public hearing, and the opportunity to contest issues raised by the National Water Authority and other interested persons. Finally, the chapter delineates the standards that the National Water Authority is to apply in determining whether to issue the permit. If the State opts to have Special Water Management Areas as the primary Authority for issuing water use permits, this chapter, particularly will refer to activities of the Area Water Board rather than of the National Water Authority. There will still need to be a nationwide mechanism for assessing Interbasin transfers or other transfers that will affect more than one Special Water Management Area and for coordinating water allocation and water quality regulations. Some provisions in this chapter, would thus remain as provisions directed at the National Water Authority rather than at Special Water Management Areas.

The Requirement of a Permit

This Part introduces the requirement of a permit to withdraw water in this State, exempting only certain small uses. Somewhat different provisions are made for permits for withdrawals begun before the effective date of the Model Water Code and for withdrawals begun after that date. Provision is also made for temporary permits during the period a permit is being processed and for registration of some of uses exempted from the permit requirement.

199. Withdrawals Unlawful without a Permit

This section sets out the basic rule: All withdrawals from the waters of the State are unlawful unless made pursuant to a permit. The permit requirement neither creates nor destroys property rights. Rather, it is a regulation of existing property rights.

The power of the State to choose among competing activities, some of which must give way so that others might survive, implies the power of the State to impose the permit requirement both as a means of obtaining the necessary information for making a choice and as a means for enforcing the choice once made. The power to choose among competing activities in turn is based upon the power of the State to regulate or eliminate nuisances. Second, even the recent cases resurrecting the notion of regulatory taking have included recognition of the public nature of water as a resource at least as compared to land. The right has long been measured by the reasonableness of the use, and that continues to be the case under the Model Water Code.

Appropriative rights are defined in terms of a specific quantity of water applied to a beneficial use. Such rights to use water clearly are vested property that could not be abolished without compensation. Nor would a severe crisis forcing the abandonment of many uses due to water shortage invoke the doctrine that the state must choose among those to be destroyed when some uses must be destroyed. The state has already made that choice through the temporal priority feature of appropriative rights that have become a part of the vested property right.

The takings clause thus would probably preclude the adoption of this Code in an appropriative rights jurisdiction.

Although the permit neither creates nor destroys property rights, the water rights evidenced by a permit do partake to some extent of the characteristic features of a property right. Among other things, water rights can be bought or sold, subject to the regulatory oversight of the National Water Authority. For another, the water right cannot be modified by the State except as provided in this Code. The National Water Authority's regulatory role in approving sales or other voluntary modifications and in imposing involuntary modifications in case of water shortage or water emergency, however, is greater than one normally would expect for a property right. This greater state involvement reflects the public and ambient nature of water as a resource, a nature that is reflected in the legal principle, found even under appropriative rights, that water ultimately is owned by the State in trust for the public.

The next section provides a limited exception to this requirement in favour of small withdrawals that have only a small effect on the waters of the State and that would be unduly burdened by requiring the water users involved to apply for and obtain a permit.

Other sections exempt certain waters from allocation under this Code. No permit issued under this Code is required for withdrawals from waters exempted from allocation, although such withdrawals might be either lawful or unlawful depending on whether the exemption was intended to preclude withdrawals, on whether the exemption was meant to leave a water owner free to withdraw without legal restraint, or on whether the waters are exempted because withdrawals are regulated under some other body of law.

200. Primary Uses Exempted from the Permit Requirement

The Model Water Code exempts certain small withdrawals from the permit requirement based on the conclusions that such users cannot afford the expense and other burdens of complying with the permit requirement and that exempting such primary withdrawals does not seriously impair the National Water Authority's ability to manage the waters of the State. These users might still be required to register their use with the Authority, a simple and inexpensive procedure designed to ensure that the Authority has full information about the demands upon all water sources within the State.

This not only saves exempted water users from the cost of applying for and successfully processing a permit, it also saves them from the costs of the delays often incident upon the processing of the permit. Exempting small water users also saves the State the unrecoverable costs of processing permits for exempt water users.

Water users are prevented from evading the permit requirement under this section by the requirement that all withdrawals for single or related uses be aggregated when the National Water Authority determines whether a withdrawal is exempted from the permit requirement as well as when the Authority decides whether to issue a permit. Several existing regulated water statutes exempt small users, variously defined. Other regulated water statutes exempt uses for particular purposes, particularly for domestic and agricultural uses.

Disputes between individual water users do not exhaust the problems that can arise involving those whose use is exempt from allocation or the permit requirement. Regardless of how a use becomes exempt, the exempted uses can cumulatively amount to a considerable amount of water, effectively defeating the public interest in the waters of the

State and the goal of sustainable development. Thus, the legislature presumably should set the level for these exemptions sufficiently low that even the cumulative effects will not be significant during years of normal precipitation. During water emergencies, however, these cumulative effects can be very important. Because of this, all exempted uses (whether the exemption is from the allocation or from the permit) are subject to the National Water Authority's regulatory authority for dealing with such problems and for preserving minimum flows and levels. As with other users facing restrictions on their uses because of water emergencies, users exempted from the permit requirement might find it to their advantage to have a plan for conservation in place before the emergency in order to gain some measure of control over the steps they will have to take in response to the emergency. To do so, they might voluntarily apply for and accept a permit.

201. Existing Withdrawals

One of the most challenging aspects of transitioning from a common-law water rights system to a regulated water system is ensuring that existing water rights are adequately respected without incurring compensation obligations to all rights holders. Overall, the Model Water Code strikes a balance between respecting existing water rights and enabling the National Water Authority to effectively manage water resources for the public interest.

202. Withdrawals Begun after the Effective Date of the Code

All persons not entitled to a preference as an existing withdrawal or otherwise exempt from allocation or the permit requirement under this Code must apply for a permit according to the normal procedures applicable to such new or all renewal permits. The applicant must file the necessary forms before beginning any work on the proposed withdrawal. Elsewhere, the Model Water Code provides that no equity attaches to an application because of investments of money or labour in acquiring the property or beginning the work necessary for the proposed withdrawal or use of the waters of the State.

203. Temporary Permits

From time to time, the National Water Authority might find it appropriate to issue a temporary permit without requiring compliance with the full procedural requirements of the normal permit process. Two obvious examples would be unforeseen emergencies or when an existing user seeks to continue withdrawing and using water while an application to renew a permit is pending. The Model Water Code responds to these needs by authorizing the Authority to issue temporary permits, for strictly limited periods, to cover the exigency giving rise to the need for the temporary permit. The authority to issue temporary permits poses only limited risk of mismanagement or abuse when the temporary permit is attendant to the processing of a full permit application. Somewhat greater dangers attend to an emergency permit. For a discussion of strategies for coping with water emergencies, see This problem is addressed by the requirement that permit applications be processed in the order of their filing except for prompt approval of routine applications; or when public health, safety, or welfare would be threatened by delay; or when the efficient process of permits requires grouping several applications for a single evaluation. See section 6R-3-03. This section dispenses only with the requirements of notice and hearings and not with the other procedural and substantive standards provided in this and the next chapter. These other standards therefore inform and delimit the authority to issue temporary permits as well. As with any permit, the Authority is to specify the terms and conditions applicable to the

temporary permit that are then binding on the permit holder until the expiration of the temporary permit or the awarding of a primary permit.

204. Registration of Withdrawals Not Subject to Permits

The Model Water Code exempts the withdrawal of water from certain shared waters, from water , and for primary uses from the obligation to obtain a permit. Some States might also elect to exempt some other preferred uses from that obligation. Nevertheless, for informational purposes in fulfilling the National Water Authority's planning responsibilities and also in designing appropriate strategies for and responding to water shortages and water emergencies, the Authority needs information about all uses of the waters of the State. The obligation to register is designed to ensure that the National Water Authority will obtain the necessary information.

The Authority is given broad authority to define which holders of water rights that are exempted from allocation or from the permit requirement must register and what information registrants need to provide. How the Authority should define the answers to such questions will vary with the resources available to the Authority to process the registration requirement and with its assessment of the information it needs to carry out its responsibilities. Registration regulations could, for example, require the following data for the year prior to the registration:

- (1) estimated average daily withdrawal,
- (2) maximum daily withdrawal,
- (3) sources of the water withdrawn,
- (4) capability of the withdrawal facility,
- (5) uses made of the water, and
- (6) volume of wastewater returned to the water source.

Probably, the Authority will exempt some exempted withdrawals even from the registration requirement. The most likely examples will be the small water uses or primary uses that are exempt from allocation and from the permit requirement under the Code. Some legislatures might prefer to define classes exempt from the registration requirement in the statute rather than to leave it to the discretion of the Authority. Some persons who are not required to register their uses might nonetheless choose to do so in order to establish a clear record of their use. This possibility is recognized in subsection (2). Such non-mandatory registration is to satisfy the same requirements as the mandatory registrations under subsection (1).

Permit Procedures

This Part sets out the procedures to be followed in processing permit applications. In addition to specifying the contents of the application, the procedures include notice and an opportunity to be heard for any person using water or likely to use water from the same source, and a right of comment for anyone. Only persons who can demonstrate an actual likelihood of adverse effect are entitled to contest a hearing application. A number of other procedural safeguards are also provided, including an obligation of the National Water Authority to act, and an opportunity for the applicant to remedy any defects in the application.

205. Contents of an Application for a Permit

The Model Water Code authorizes the National Water Authority to require a particular form through regulations adopted by the Authority. This section indicates the minimum

information that the Authority must include on the form. The information specified is necessary to determine what the applicant proposes to do and to facilitate the Authority's evaluation of the application. The required information should enable the Authority to consider all dimensions of the public interest and the sustainability of the development in question in choosing between competing permit applications and in undertaking its planning and shortfall management functions.

206. Notice and Opportunity to Be Heard

This section is designed to ensure that any person who has an interest in the issuance or denial of a permit under the Model Water Code has a fair opportunity to be heard before a decision is made on the application for the permit. This is a common requirement in regulated water statutes.

207. Processing Applications in the Order Received

To balance the need for fair processing of applications with the need for efficient management of the National Water Authority's procedures, this section provides that applications are to be processed in the order in which they are received by the Authority except if the application lends itself to a routine approval or denial without extended consideration, or if the public health, safety, or welfare requires expedited consideration, or to enable the Authority to undertake joint consideration of multiple applications to withdraw water from the same source.

208. Contesting an Application

This section specifies the burden on a person who seeks to contest the award of a permit to another person and makes clear that anyone who complies with the procedural requirements is entitled to a hearing under the Model Water Code, so long as the person contesting the approval of the application has alleged non-frivolous grounds.

209. Public Right of Comment

The Model Water Code requires the National Water Authority to receive written comments from any person regarding any pending application if received within the time specified. This section does not guarantee a hearing to persons unless they are likely to be adversely affected by the issuing of the permit. The Code does not require an informational hearing on every application for a permit, leaving that to the Authority's discretion. This section is consistent with the American Society of Civil Engineers' policy supporting public participation.

210. Obligation of the National Water Authority to Act

In more than one regulated water state, the administering Authority has been seriously understaffed and underfunded, so that permits either have not been issued or have been issued with inexcusable delays. The Model Water Code places the burden of nonaction on the National Water Authority rather than the applicant. This not only gives the Authority an incentive to fulfil its duties promptly but also protects an applicant from unreasonable delays in undertaking the withdrawal and use of water caused by the non-action of the Authority. This section therefore also creates incentives for the legislature to provide adequate staff and other resources to ensure that the Authority can fulfil its responsibilities. On the other hand, as the Authority is bound to set fees high enough to cover its costs in processing

applications, the burden of providing adequate staff and resources ultimately should not fall upon the general public.

211. Notice of Action on Applications

The Model Water Code specifies how the National Water Authority must communicate its decisions regarding permit applications. Overall, the Model Water Code ensures transparency and accountability in the National Water Authority's permit application process.

212. Opportunity to Remedy Defects in an Application

This section requires the National Water Authority to allow an applicant who has been denied a permit to resubmit the application with alterations designed to remedy the causes of the denial. The Authority should respond to a resubmission as a continuation of the earlier application process rather than the initiation of a new application. The advantage of such an approach is largely in terms of the administrative and financial burden as the earlier record compiled on the earlier application will often be sufficient to evaluate the new application except in so far as the modifications in the application might require new information or data. The Authority will also notify all persons entitled to notice under the preceding section of the resubmission, allowing them a reasonable opportunity to comment upon or contest the resubmission. The Authority, which will spell out the details of this process in its regulations, will not need to require the applicant or its own staff to assemble the complete data necessary for evaluating a wholly new application.

The Basis of a Water Right

This Part sets forth the standards to be used in evaluating a permit application. In particular, this Part specifies the factors relevant to determining whether a particular proposed use is reasonable. Certain limited preferences are provided for use in the permit process that are also relevant in times of water shortage or water emergency. Special standards are provided for interbasin transfers, including the power of the National Water Authority to provide for generalized compensation to the basin of origin for the secondary and tertiary effects of an interbasin diversion.

213. Standards for a Permit

This section of the Model Water Code sets forth the standards that govern whether a permit shall be issued. The definition of a reasonable use requires that the use be efficient and not involve the waste of water, that the use will not unreasonably injure or otherwise burden any other individual water user or class of water user, that the use will not endanger the public health, safety, or welfare or otherwise conflict with the public interest, and that the use is consistent with sustainable development. The public interest relative to the waters of the State, other than the immediate protection of public health, safety, and welfare, is found in the policies expressed in this Code. This section highlights several other general standards, all of which relate to the reasonableness of a use, but none of which are completely subsumed within that basic standard.

214. Determining Whether a Use Is Reasonable

This section describes the factors that shall inform any decision by the National Water Authority regarding whether a proposed use is reasonable. Given the dual nature of the

standard of reasonable use, the factors to be considered include both abstract questions of the social utility or value of the proposed use and also relational questions of the relative value of the proposed use compared to other existing or planned uses. This section also indicates that the question of reasonableness requires the Authority to consider impacts on users dependent on other hydrologically interconnected water sources, and on users in other water basins and in other States. The abstract question of reasonableness requires examination of the proposed use for its consistency with sustainable development and other aspects of the public interest. This in turn will call into question the consistency of a proposed use with the comprehensive water plan and the drought management strategies already developed by the Authority. Even assuming a perfect fit with these standards, however, does not end the inquiry. The Authority must still consider the effect on other water users—in other words, the relation of the proposed use to other existing and planned uses.

Balancing efficient use with prior investment is central to determining what is “reasonable.” This balancing process is constrained by the existence of earlier permits. A permit is an assurance of substantial legal and administrative protection of a use for the life of the permit. If the earlier wells had already received permits, the Authority’s decision to award the new permit stands on a different footing. The Authority cannot simply authorize interference with existing wells prior to the expiration of their permits. The Authority could authorize interference only if it were to undertake a dispute resolution process that could result in ordering the new applicant to compensate (in funds, in water, or otherwise) the affected existing water right holders for the remaining duration of their water rights.

Some will see the foregoing analysis as a step in the direction of appropriative rights rather than a perpetuation of the water approach to water management. This is not so, both because the permits will expire periodically and because of the possibility of water shortages or water emergencies. Upon expiration of a permit, the Authority can deny renewal of a permit for an existing use if it is unreasonable in light of conditions at the time of the renewal. While non-renewal is not likely for an existing use that has real value to the users and to society, particularly for domestic wells, the permits can also be renewed on different terms and conditions than was formerly the case. If the domestic wells subject to permits are unreasonably shallow, the Authority undoubtedly will renew the permits on condition that the owners drill down to a reasonable depth. Droughts will provide another occasion when the reasonableness principle comes into play. Existing permits can be restricted during water shortages and water emergencies. If there is a water shortage or water emergency, the Authority will restrict wells (or other withdrawals) more severely according to the reasonableness of the use. Shallow wells for domestic purposes might be protected to some extent, given the priority given to the preservation of human life, yet those shallow wells will be most vulnerable to the effects of drought. Whatever the solution, it will be based upon reasonableness rather than upon temporal priority.

The list of factors to be considered in determining reasonableness is long and involves features that relate to both the abstract and the relational aspects. The analysis rewards applications for permits that seek to minimize adverse impacts on other private and public values. No precise formula for combining these several factors can be devised, leaving considerable discretion in the Authority to weigh and balance these factors to determine whether a particular proposed use is reasonable.

215. Aggregation of Multiple Withdrawals

Often water right holders will apply for a succession of permits to secure increasing allocations of water for a particular use or a related set of uses. This can come about either because of expansion of the original planned operation, or because the National Water Authority chose initially to issue a permit for less than the applicant sought, or for other reasons. In such cases, the Authority is directed to aggregate all withdrawals for the particular use or related set of uses in determining whether the entire use is reasonable and in determining whether to issue the permit for any increased withdrawal. The aggregation requirement also applies to determining whether a withdrawal is small enough to be exempt from the permit requirement.

216. Preferences among Water Rights

This section establishes general priorities for the issuance of permits among competing applicants in water-short areas. These same priorities are also relevant to coping with water shortages or water emergencies.

The criteria in this section are not to be applied in a rigidly mechanical fashion but require consideration of the characteristics of the water source, the possibilities of alternative sources, and the interplay of various existing or proposed uses on those characteristics. The preferences set forth in this section serve three extremely limited purposes. One is to direct the Authority in selecting among competing applications, including applications to renew a permit. The second is to guide the Authority in reviewing applications to modify a water right. The third is to guide the development and application of drought management strategies during periods of water shortage or water emergency.

Many existing regulated water statutes contain other preferences than those provided here. Some focus on the nature of the use, some on the quantity of use, and some on a combination of such factors. The one universal preference, found even in most appropriative rights States, is a priority for the water necessary for simple human survival. The word “necessary” indicates that inessential uses and waste alike are not to be preferred over other priorities provided in this section.

217. Prior Investment in Proposed Water Withdrawal or Use Facilities

On occasion, an applicant attempts to bolster an application by beginning investment in the proposed project before the permit is issued, or perhaps even before the application has been received by the National Water Authority. This section indicates that any such investment shall not create an equity in favour of approval of the application or the issuance of a permit by barring the admission of evidence of any such investment and by barring compensation for any loss on the purchase of land acquired or for other expenses incurred in commencing construction prior to the denial of a permit or the issuance of a permit on terms or conditions less favourable than those sought by the applicant.

218. Special Standard for Interbasin Transfers

Large transfers of water from one water basin to another have become common. Overall, the Model Water Code seeks to balance the needs of water users in different basins while protecting the water basin of origin from harmful impacts.

Coordination of Water Allocation and Water Quality Regulation

Coordination, or even integration, of water allocation and the regulation of water quality are very important. This Part is designed to achieve such coordination when the responsibility for the allocation of water under the Code is vested in a different Authority from the Authority responsible for the achievement and maintenance of the prescribed water quality standards. This Part spells out the essential procedures that the National Water Authority is to follow in coordinating its allocation decisions with the achievement and maintenance of water quality standards applicable by law within the State. The process is broken into a number of discrete stages, each of which is described in a particular section. Should the State vest both responsibilities in a single National Water Authority, the provisions and commentary of this Part would have to be rephrased to accommodate simplified procedures that could result from such a merger of responsibilities, but substantively the provisions of this Part would need little, if any, change.

219. Protecting and Preserving Water Quality Standards

This section provides the basis for coordinating water allocation and water quality pursuant to the strong policy favouring such coordination established in the Model Water Code. The Code takes the position that allocation decisions remain the responsibility of the National Water Authority as defined in this Code, even when those decisions impact on the achievement of the prescribed water quality standards. The Authority is required to coordinate its processes with the Authority responsible for those water quality standards and even to issue a single, joint permit if that would improve the operation of both sets of regulatory need. The other Authority can have recourse to whatever is the normal administrative process of the State for resolving disputes between different agencies. The reasons for this structure are set forth at length in the commentary to the policy on coordinating water allocation and water quality regulation.

220. Data to Be Provided by Environmental Management Authority to the National Water Authority

This section requires the National Water Authority to gather certain data from the Authority responsible for regulating water quality and to include that data in the nationwide data system required by this Model Water Code. With this information available and up-to-date in the data system, the National Water Authority will be in the best possible position to appraise the probable quality impacts required to be considered for any withdrawal for a consumptive use. The State's Authority responsible for water quality is under a duty to cooperate with the National Water Authority and, thus is under a legal duty to provide the information indicated by this subsection. That duty is restated in this section to emphasize its existence and to remove any grounds for disputing the point. The duty is expressed in the broadest possible terms given the goals for the Statewide Data System. As with other data included in the system, confidential business information will generally be protected from disclosure. The duty of mutual cooperation is a legal duty. While in some States, that will imply one unit of state government suing another for failure to cooperate, in many States there will be an administrative mechanism for resolving such problems. In a State with such an administrative mechanism, the Code expects that mechanism to be used to resolve disputes about what information is to be provided under this section. In a State that assigns both the allocation and the quality maintenance function to a single Authority, this section can be omitted as the National Water Authority will, presumably, have already included that information in its statewide data system and there will be no need to express a legal duty on another Authority to provide the information

221. Evaluating Allocations for Their Potential Effect on Water Quality

This section prescribes the procedures and standards the National Water Authority is to apply to evaluate allocations for their potential effects on water quality. The section requires the National Water Authority to create the necessary procedures and provides for the minimum substantive content for those procedures to consider. Coordination of the two functions of water allocation and the regulation of water quality is essential to ensure that every potential point source discharger be identified at the earliest possible time and that other activities affecting water quality begin to come under effective regulatory review. This is not done through the creation of yet another environmental impact statement requirement, but rather as a normal part of the determination of whether a proposed or actual withdrawal and use of water is reasonable. No person should receive a permit to withdraw water from the waters of the State without assessment of the quality impacts of the proposed activity.

The decision on whether to issue a permit or to approve a modification of a permit must be predicated on an analysis of the alternatives to satisfy the water needs of the applicant. As is generally true under the Code, the overall goal is the achievement of the public interest in the waters of the State generally, and of sustainable development in particular.

The costs of achieving or maintaining prescribed water quality standards is a direct function of the extent of treatment required for effluent discharges, which in turn is a function of the waste assimilative capacity of the water source at the point of discharge. Implicit in this is the consideration of whether the financial burden of achieving and maintaining the legally prescribed water quality standards will, or should, fall on the public purse or upon the particular water right holders, as well as other dimensions of the public interest. This subsection thus acknowledges the reality of the use of the waters of the State for effluent assimilation, making waste assimilation a use of the water that must be considered by the National Water Authority every bit as much as any withdrawal.

222. Combining Permits for Water Allocation and Water Quality

When regulatory responsibility is vested in two or more agencies, that generally is not possible, but it often will be possible to issue a combined permit in a single process involving the several agencies. That is the procedure set forth in this section.

This section reiterates the general obligation that the National Water Authority, when feasible, combine its permits with other permits required for the use of the waters of the State.

223. Preservation of Private Rights of Action

The proliferation of federal and state regulations designed to achieve and maintain the quality of the waters of the State indicate that private litigation has not been an effective means of accomplishing these ends as far as society as a whole is concerned. Nonetheless, these private rights of action remain an essential means of remedying individual injuries caused by activities that degrade the waters of the State. This section reiterates the general policy of the Model Water Code that it does not pre-empt private rights of action for injuries cognizable under laws other than this Code.

PART VIII

SCOPE OF THE WATER RIGHT

This chapter addresses several important questions relating to the water right created by the Model Water Code. The chapter defines the extent of the water right through the terms and conditions of the permits to be set by the National Water Authority, including the duration of permits and forfeiture for non-use. Generally, a permit confers a legally protected right to use water for the duration of the permit, so long as the permit holder complies with the terms and conditions of the permit. Other provisions of the Code detail what happens when there is a dispute between two permit holders, what is to happen when an application for a permit discloses a likely conflict with existing permits, what happens when a permit holder seeks to renew an expiring permit, particularly if there are competing applications for the same water, and the circumstances under which the National Water Authority can revoke a permit.. In addition to delineating the power of the National Water Authority to determine the terms and conditions of permits, this chapter deals with the modification of water rights and the authority of the National Water Authority to impose restrictions during water shortages and water emergencies. The topics covered in this chapter are at the core of the managerial scheme embodied in this Code. In particular, the Code seeks to encourage and enable voluntary modifications of water rights, so they can be shifted to different uses, but also undertakes to promote such flexibility through time-limited rights and through the authority of the National Water Authority to restrict water rights to respond to particular crises.

Extent of the Right

It is of importance to have clearly defined legal rights to use water. This Part provides the basic provisions on the extent of the water right. This Part begins by providing the standards the National Water Authority is to apply in setting the terms and conditions of a permit, proceeds to the duration of permits, and concludes with provisions relating to the forfeiture of a water right evidenced by a permit. Other important aspects of the extent of a water right are dealt with in the remaining Parts of this chapter relating to the modification of a water right and the authority of the Authority to restrict withdrawals or uses pursuant to a permit during periods of water shortage and water emergency.

224. Permit Terms and Conditions

The Model Water Code requires the National Water Authority to delineate in each permit the terms and conditions that govern the water right conferred by the permit. This section describes the essential terms and conditions that must be included in each permit but does not specify what those terms or conditions should be in any particular permit. In general, these various terms and conditions are to conform to the law and policies of the Code and to the physical laws that describe the behaviour of water. For an example of a permit with terms and conditions.

Most importantly, the terms and conditions will define how much water is authorized to be withdrawn and consumed at any given time, as well as the time, place, and authorized purpose of the withdrawal. The section also requires the Authority to add a number of other terms and conditions to each permit that are necessary to ensure that the basic terms and conditions are met. The Authority is to limit the quantity of water permitted under a water right to that amount that can be put to a reasonable use by the right holder. By so limiting the quantity of water withdrawn and used, the permit serves to reduce or eliminate the

waste of water, making more water available for others uses, including for non-consumptive uses and to preserve protected minimum levels.

In order to administer and enforce the permits properly, the Authority must require that each water right holder install and maintain adequate metering and related devices and report the resulting information to the Authority from time to time. The officers and duly authorized employees of the Authority have the right to inspect such devices at any reasonable time. The Authority is also required to add appropriate conservation measures and other terms and conditions designed to protect environmental and aesthetic values.

The Authority has general authority to require terms and conditions designed to protect environmental and aesthetic values in general, and the biological, chemical, and physical integrity of a water source in particular. This power also includes the power to impose, as terms and conditions of a permit, specific obligations to adopt and implement conservation measures and to restore the lands and waters to their pre-withdrawal condition when such requirements are necessary and proper.

The Authority is also charged to administer a fund to provide compensatory benefits for water basins of origin after the Authority has issued a permit for (and thereby approved) an interbasin transfer. Such benefits will generally focus upon enhancing the basin of origin's use of the water resources remaining after the interbasin transfer but are not limited to such use. This power of the Authority is similar to, but broader than, the power of the Authority to require compensation of specific holders of water rights who are adversely affected by a proposed modification of another's water right through an arbitral hearing.

225. Duration of Permits

Time-limited permits maximize State control by enabling the National Water Authority to reallocate the waters of the State to more reasonable uses as the earlier permits expire. This approach reflects a conclusion that sales of water rights will remain relatively rare under a regulated water system, just as they have under the more strictly private property regime of appropriative rights.

The duration of water permits should be set to balance the need for investor security with the need for public resource management. Overall, the Model Water Code seeks to ensure that water permits are of a duration that is fair to both investors and the public.

226. Forfeiture of Permits

The public interest in the efficient and equitable use of the waters of the State precludes the speculative holding of water rights. To the extent that any water authorized for use by a permit is not used, the water right reverts to the State.

Forfeiture, the involuntary relinquishment of a permit and therefore of the water right evidenced by that permit, occurs through the failure to use the water or to the wasting of water. Forfeiture enables unused water or improperly used water to be reallocated by the National Water Authority without reference to the claims of the permit holder who failed to use the water or who failed to use the water properly. Overall, the Model Water Code's forfeiture provisions are designed to ensure that water resources are used efficiently and equitably.

Modification of Water Rights

The Model Water Code adopts a policy favouring the modification of water rights in order to promote the highest or best use of the resource. This approach, particularly when the modification occurs through a market, has strong supporters in the literature of water management and is beginning to be found in actual water management today.

This Part provides provisions detailing how the policy of encouraging voluntary modifications is to be put into effect while protecting other water right holders and the public interest.

227. Approval Required for Modification of Permits

The Model Water Code enables a water right holder to apply to modify a permit upon a showing similar to the initial application for a permit. This section should be read in connection with the section requiring the National Water Authority to aggregate all related water uses in considering any application for a permit. If the only requested modification involves enlarging the amount of water to be withdrawn or consumed, it matters little whether the application is treated as an application to modify an existing permit or an application to receive a new permit. Probably the most important applications to modify a permit will involve an assignment of the permit to another person, making that person the holder of the water right. Water rights are to be assignable by voluntary act of the current water right holder to facilitate the highest and best use of the waters of the State. Such transactions were rare under common-law, in part at least because of the unsatisfactory state of the law.

228. Approval of Modifications

Compliance with the new permit process includes filing an application providing the same sort of information as is required for a new permit, paying a fee as provided by regulation that will at least cover the cost of processing the permit application, and providing proper notice to potentially affected parties. Persons who object to the transfer shall be given a similar opportunity to inform the Authority of the basis of their objections as for an application for a new permit. The Model Water Code includes a policy of encouraging modifications of water rights so far as they do not violate the standards set forth in this part. Therefore, the Authority should seek to devise terms and conditions that will make approval of the modification possible.

229. Approval of Non-Injurious Modifications

Not all applications to modify a permit will involve changing the quantity of water to be withdrawn or used. Permits will contain many other terms and conditions, and the holder of a permit might seek to modify any of those terms and conditions. This is permissible according to this provision, so long as the new water right holder does not intend to change materially the manner, place, or timing of withdrawal or use, there is little chance of an impact not contemplated when the original permit was issued.

This section introduces the term assignment to describe the substitution of a new permit holder for a prior permit holder. The term has a well-established legal meaning that includes sales, leases, gifts, or any other similar transaction. As used here, the term includes involuntary assignments as well as voluntary assignments, as the policies addressed in this

section are at stake in either event. The more specific terms simply are inadequate to capture the full range of transactions that might give rise to the problem addressed in this section.

230. No Rights Acquired through Adverse Use

State planning and management of the waters of the State are at the heart of the Model Water Code. To allow adverse use as the basis for establishing a water right is to impose insurmountable barriers to the Authority's ability to acquire the information necessary to discharge the Authority's planning and management functions. Thus, even voluntary modifications of water rights are not allowed without review and approval by the National Water Authority. The Code therefore also prohibits adverse use as the basis of a water right.

If a water right holder persists in failing to exercise or defend the water right, the permit holder forfeits the water right, the right reverts to the public, and the water becomes available for allocation to other uses, whether involving withdrawal or not. Only the Authority can properly decide what those substitute uses are to be. Private action simply is not allowed to override the mechanisms established in the Code for promoting and protecting the public interest.

Restrictions During Water Shortages or Water Emergencies

One of the central purposes of a regulated water system of water law is to enable a State to cope reasonably and effectively with the recurring shortfalls in water supply that are becoming more frequent due to climate change. As a result, water conservation permeates the entire Model Water Code, and the Code is suffused by the goal of sustainable development.

The dominant mode by which water is managed during periods of water crisis under a regulated water system is the pairing of a comprehensive information gathering system with legal authority in the state to restrict uses during periods of shortfalls of water supply, notwithstanding the permits authorizing greater use during periods of normal supply. This Part provides authority to the National Water Authority to respond to such shortfalls and to compel water users to comply with the Authority's strategies and decisions. This Part also deals with certain aspects of water conservation, although other aspects of water conservation are dealt with in the Code. This Part, as does the Code generally, speaks solely in terms of water shortages or water emergencies. A State might choose to confer broader responsibilities on the National Water Authority, including responsibility for water quality, flood control, and so on. If this is done, the language of this Part would need to be rewritten to reflect these broader responsibilities, as would certain definitions, the planning responsibilities under this Code, and perhaps other provisions as well.

231. Authority to Restrict Permit

In this section, the Model Water Code provides a mechanism to prevent uncontrolled conflict among water rights during periods when the water available falls short of the amounts necessary to satisfy all lawful reasonable uses. Without a hierarchical system of temporal or other rigid priorities, the Code must provide some other basis for resolving the conflicts that arise when water is over-allocated, or the water sources contain significantly less than their normal volumes.

The Code distinguishes between water shortages and water emergencies. The distinction raises different levels of authority in the National Water Authority, both regarding restricting the otherwise lawful exercise of water rights and regarding the protection due to minimum flows and levels. The details of these distinctions are provided in the remaining sections of this Part.

The Code, consistent with its general approach to the planning and management of the waters of the State, authorizes the Authority to act to reallocate water or otherwise intervene to modify the terms or conditions of permits in order to maximize the public interest during such crises.

Generally, restrictions for either water shortages or water emergencies must follow the drought management strategies developed as part of the comprehensive planning process before the shortage or emergency is declared. Drought management strategies will include a set of priorities among water uses, although these priorities must reflect the preferences for certain uses of water found in section 86. The requirement that the National Water Authority follow previously established drought management strategies serves to make the actions of the Authority predictable, enabling water right holders to plan their reactions even before restrictions are imposed. Still, few actual shortages or emergencies will precisely match any set of assumptions underlying a drought management strategy, and the Authority is authorized to depart from the planned responses when rigid adherence would be inappropriate. On the relative merits of requiring adherence to planned responses or authorizing ad hoc responses.

232. Declaration of a Water Shortage

The conditions that constitute a “water shortage” are set out in the definition of the term. The National Water Authority is given broad discretion to declare a water shortage when it judges that the necessary conditions exist. This decision is judicially reviewable for abuse of discretion. Upon the declaration of a water shortage, the Authority can restrict any water right by modifying the terms or conditions of the permit, but only after giving all affected persons notice of the proposed change and an opportunity for a hearing. Hearings might be requested by water right holders who contend that a proposed restriction on the water right expressed in their permit is unnecessary or improper. A hearing might also be requested by a person who contends that one or more proposed restrictions are inadequate responses to the water shortage in light of probable effects on that person. The declaration itself has the status of a regulation and is reviewable as such. Any order issued to an individual under this declaration is reviewable as a final decision or order. The burden of requesting a hearing and of proving that the proposed restriction is either unnecessary or otherwise improper is on the person requesting the hearing.

233. Declaration of a Water Emergency

A water emergency is a more serious crisis than a water shortage. The National Water Authority has broad discretion to declare a water emergency, and its decision can only be reviewed by a court for abuse of discretion. Because of the greater severity of a water emergency compared to a water shortage, the powers of the National Water Authority to respond to a water emergency are correspondingly greater.

During a water emergency, the Authority has greater powers to respond, including the power to restrict the terms and conditions of water permits without a prior hearing. The Authority must provide a hearing promptly upon request, but the emergency order remains in effect until the hearing is concluded.

234. Delineation of the Area Affected

This section confirms the authority of the National Water Authority to delineate the area of the State and the water sources subject to a declaration of water shortage or water emergency. A declaration of either status by the Authority must include a clear delineation of the boundaries of the area covered. As a regulation, the Authority's discretion in setting those boundaries is subject to judicial review only for abuse of discretion.

235. Restriction of Withdrawals for Which No Allocation or Permit Is Required

Users relying on certain small water sources and certain small-scale users are not subject to a permit requirement in order to withdraw or use water. It may not be, therefore, an adequate response to a water shortage or water emergency for the National Water Authority simply to modify permits. This section authorizes the Authority to restrict water rights not subject to the permit requirement as part of its response to a water shortage or water emergency. The same procedures regarding the nature and timing of such restrictions apply to water rights not required to have a permit as to those that do require a permit.

236. Conservation Credits

The Model Water Code encourages voluntary water conservation by awarding conservation credits to permit holders who take steps to conserve water during a water shortage or water emergency.

The Code also allows permit holders to enter into agreements to undertake joint conservation measures. These agreements are contracts, and the Code does not create a special enforcement mechanism for them.

To qualify for a conservation credit, the permit holder must quantify the water conserved by comparing their water use before and after implementing conservation measures. The Code requires the National Water Authority to approve joint conservation agreements if they are workable and do not improperly impinge on the rights of other permit holders, the public interest, or sustainable development.

Data on conservation credits and registered joint conservation agreements will be included in the nationwide data system, which will be available to the public.

This section is a unique approach to encouraging voluntary water conservation during water shortages and water emergencies. Few other states have similar provisions.

237. Amendment or Termination of a Declaration of Water Shortage or Water Emergency

This section simply confirms the authority of the National Water Authority to amend or terminate any declaration of water shortage or water emergency. Such authority might be inferred from the authority to declare the shortage or emergency, but such authority should

not be left to inference. As with any final decision by the Authority, an aggrieved person can request a hearing or seek judicial review.

PART IX

WATER CONSERVATION AND SUPPLY AUGMENTATION

The need to conserve water is usually one of the most important reasons underlying the enactment of a regulated water statute. Consequently, water conservation permeates the entire Model Water Code, yet the provisions scattered throughout the Code do not exhaust the needs of the State for water conservation. This chapter addresses certain additional means of encouraging voluntary water conservation by water right holders above the levels that are required in the terms and conditions of their permit. In addition, this chapter provides support and preferences to water users who conserve water.

Water Conservation

The Model Water Code here introduces several means for the National Water Authority to support water conservation beyond that which is strictly required by the command of this Code, including the terms and conditions of a permit. In this Part, the Code authorizes programs of public assistance and public education as well as preference in modification proceedings as a reward for such voluntarily undertaken conservation measures. Additional means for the Authority to secure the voluntary conservation of water is found in the provision in the Code to contract to protect additional levels of water beyond those protected by regulation of the Authority and conservation credits required under the Code.

238. Support for Voluntary Water Conservation Measures

The Model Water Code encourages voluntary water conservation through public education and technical assistance programs. The funding for these programs can come from the State Water Fund, which is financed by various fees, fines, and penalties related to water use.

239. Preferences to Water Developed through Conservation Measures

This section establishes a preference for water users who voluntarily conserve water beyond what is required by law or their permits. This preference applies to applications to modify permits to use the conserved water for a related or different purpose. However, the water user must still prove that the modification will not significantly injure other users, the public interest, or the sustainable development of water resources.

The Code assumes that this preference will incentivize water users to conserve water more efficiently. The water user must quantify the water conserved by comparing their water use before and after implementing conservation measures. The National Water Authority will normally require actual measurements but may accept estimates in appropriate cases.

This preference does not apply to water that was not used because the original permit inadvertently authorized its waste or because it is not capable of being used consistently with the terms and conditions of the permit. This provision is intended to prevent water

users from monopolizing water resources by claiming credit for water that they never actually used.

Atmospheric Water Management

The Model Water Code does not spell out in detail the legal criteria and procedures for atmospheric water management. This Part supplements a State's regulation of weather modification through licensing and permitting laws.

240. State Authority over Atmospheric Water Management

This section provides the State with the jurisdictional basis for regulating and conducting operations to manage the atmospheric water of the State if it sees fit to do so.

241. The Obligations of Persons Undertaking Atmospheric Water Management in this State

This section provides for the most basic of obligations to be met by anyone undertaking weather modification. This section presupposes a weather control statute that will provide more specific obligations regarding the reporting of information. The weather control law will usually impose further obligations on a person undertaking atmospheric water management. A State contemplating an active program of atmospheric water management should examine such statutes including the Model Weather Modification Control Act prepared by the Council of State Governments for more specific obligations.

242. Governmental Immunity

If a person conducting weather modification operations under a permit causes harm to someone, the permittee is the party responsible for the damages and not the State, the National Water Authority, the State's weather control Authority, if any, or any of their employees. This section confirms the governmental immunity from liability based on the conduct of others. The next section delineates the liability of weather modifiers and their sponsors.

243. Private Liability

The Model Water Code does not allow for liability without fault in weather modification. If the person who releases weather modification agents is at fault, they are liable for any resulting damages. Having a permit is not a defence against liability.

244. Water Rights Derived from Atmospheric Water Management

The Model Water Code authorizes the National Water Authority to allocate water developed through weather modification, but only if the use is reasonable. The applicant should ensure that the use does not unreasonably injure other lawful uses of water, is consistent with the public interest and the public health, safety, and welfare, and that it be consistent with the sustainable development of the waters of the State. Moreover, they must demonstrate actual success in developing new water and quantify the amount and timing of the development. Computer models are likely to become increasingly helpful in this regard.

PART XI SAFETY OF DAMS

Zimbabwe is a semi-arid country that relies heavily on regular rainfall for its water needs. While the country has invested in large, small, and medium dams, current utilization is only about 22% of mean annual run-off. Thus, effective water resource management as it pertains to dams is crucial for Zimbabwe's economic growth, as impending weather changes from climate change such as droughts, excessive rainfall and poor management can significantly impact water, sanitation, hygiene, and consequently human livelihoods. This Part acknowledges the important role of dams in storing water as well as solving or exacerbating water issues, particularly in times of emergencies.

245. Interpretation in Part XI.

The section provides definitions to terms that apply and are significant to this Part XI.

246. Minister may grant exemptions.

Exemptions may be granted by the Minister from the obligation to observe Part XI, as indicated in this section.

247. Approved civil engineers and approved civil engineering technicians.

This section identifies the application process and the requirements for the approval of civil engineers or civil engineering technicians.

248. When dam works in respect of small dams may be commenced.

This section identifies the conditions that must be fulfilled in order for works on small dams to commence in accordance with the Code.

249. Duties of owners on completion of dam works in respect of small dams and registration.

Once a dam is complete there are certain duties and obligations that are to be fulfilled by owners as prescribed in the Code.

250. Reporting of small dams in certain areas.

The Secretary on recommendation of the National Water Authority may require owners of existing small dams to provide reports as indicated in this Section.

251. When dam works in respect of large dams may be commenced.

The Section provides the conditions that need to be satisfied in order for works on large dams to commence in accordance with the Code.

252. Supervision of dam works in respect of large dams.

Civil engineers are required to supervise dams works in respect to large dams and fulfil certain tasks as identified by this Section.

253. Duties of owners on completion of dam works in respect of large dams and registration.

There are numerous duties expected of owners of large dams as indicated in this Section.

254. Periodic inspections of large dams.

Large dams require periodic inspections as per the conditions presented in this Section.

255. Secretary may appoint council of consultants.

The Secretary may in consultation with the catchment council appoint a council of consultants as per the terms indicated in this Section.

256. Secretary may require owner to carry out dam works.

Following a report by a board of consultants, the Secretary may require the owner of a dam to carry out dam works that are deemed necessary according to this Section.

257. Rights of access, inspection, investigation, and survey.

Secretary, the National Water Authority, the catchment council or any person authorized thereto by the Secretary, the National Water Authority or the catchment council in writing may access, inspect and survey the dam in accordance with this section.

258. Procedure in emergencies.

In the event of emergencies such as flood the procedures that should be followed are prescribed under this section.

259. Procedure in emergencies arising during execution of dam works.

In the event of emergencies during works the procedures that should be followed are prescribed under this section.

260. Exemption from liability areas.

This provision seeks to offer exemption from liability to Authorities while carrying out their duties.

MODEL WATER CODE ZIMBABWE

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